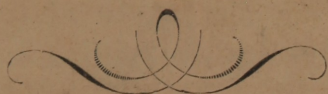


ANTHONY (J. G. -)

J. F. Potter. M.D.

from the Author.
see in name



DESCRIPTIONS
Bound cover in front

OF

NEW FLUVIATILE SHELLS,

OF THE

UNITED STATES.

BY

✓
JOHN G. ANTHONY.

Surgeon Genl's Office.
LIBRARY.
38369
Washington, D. C.



XVI.—*Descriptions of New Fluvial Shells of the Genus MELANIA Lam., from the Western States of North America.*

By JOHN G. ANTHONY, Esq., of Cincinnati, Ohio, Corresponding Member.

Read January 30 and February 27, 1854.

In June, 1853, the writer entered upon a pedestrian tour through the States of Kentucky, Tennessee, and part of Georgia, with the double purpose of renovating health, and of collecting the numerous and varied species of fluvial shells with which our Western streams and rivers abound. The journey was extended as far as Macon, in Georgia, when heavy and continuous rains arrested further progress, by swelling the streams so high as effectually to debar all collecting. From the unusual fulness of some of the other streams visited during the journey, the number of *Naiades* obtained was restricted, but large quantities of *Melanida* were collected. Some of these were of old and well known species; others represented species which, though already named and described, are as yet little known in collections, or have been described from solitary or imperfect examples. The species named and characterized in the following pages, with others to appear hereafter, consist, for the most part, of the *new* acquisitions made during this journey.

The author regrets his inability to give a more precise statement of habitat than that here assigned to most of his species; but the precautions he had taken for keeping his collections distinct proved insufficient, and he, therefore, prefers merely to name the *State* in which they were taken,—viz. Kentucky, Tennessee, &c.,—rather than misstate the *stream* where found. The waters from which the specimens were collected were so

Descriptions of New Fluvial Shells.

various, and often so obscure, as to increase this difficulty. Many of them, in fact, are unhonored with a name, being mere springs, sometimes scarcely a foot wide, and a few inches deep. The abundance of this form of animal life in this part of the world, not only in species, but also in individuals, is inconceivable to those accustomed to its paucity in the Eastern States. In Kentucky, Tennessee, and Georgia, no running water is too insignificant to be altogether devoid of shells. Among these, *Melania* are strikingly abundant; and, indeed, so far as noticed, they were almost the sole denizens of the small streams. I cannot recollect having seen a single specimen of *Limnæa* or *Physa* in all the route. Only two or three species of *Paludina*, no *Planorbis*, perhaps two species of *Cyclas*, and only one *Ancylus* (*A. elatior nobis*), a new species from Green River, Kentucky.

The most prominent streams examined were Green River, Barren River, Beaver Creek (a branch of Barren), Nolen River (a branch, I believe, of Green), all in Kentucky; and in Tennessee, ~~the~~ Cumberland River, Cany fork of Cumberland, Collins River, Rock River, Defeated Creek, Battle Creek, Chattanooga Creek, Holston, French Broad, Tennessee River, Mine-lick Creek, and Sequatchee River; while in Georgia, the Ocmulgee, Chattahoochie, Etowah, Coosa, Oostanulla, Connesauga, Sumac Creek, and Rock Creek, were examined,—and in all these States, hundreds of smaller streams, of every grade, tributary to those I have mentioned.

My means of carriage being limited, but little time was devoted to any one stream, as a few minutes only sufficed to gather two hundred specimens of each species. Generally not more than three species were found in these small streams at any one point, and to gather four or five hundred specimens, twenty minutes was ample time. Every stone in these streams, every piece of floating wood, and, where both were absent, even the muddy bottom, was covered by *Melania*, and I had only to strip them off with my hands, and select

Descriptions of New Fluvial Shells.

the full grown ones. In Cany fork, I collected twelve hundred specimens of *Melania pernodosa* Lea., one hundred of *M. alveare* Conrad, one hundred *M. robulina* Anthony, and some three or four hundred of mixed species, in about one hour's search. I found the specimens everywhere very much coated, generally with ferruginous matter; but on one occasion, I found every specimen in a small run, enveloped with a thick deposit of calcareous ~~earth~~, so that they looked like slender hazel nuts—the deposit being probably three or four times the weight of the nucleus, the inclosed Melania. Not a particle of the shell was visible, yet the animal within was alive, and apparently as well circumstanced as a Melania ought to be. I found but few *Anculoseæ*. Out of the Tennessee, Cumberland, Cany fork, Sequatchee, Holston, and other large streams visited, a few were taken. They were particularly abundant in ~~the~~ Green River and the Sequatchee, two rapid, noisy, rocky streams, favorable to that genus, which cannot bear a sluggish, muddy river at all. I never found *Anculoseæ*, even when abundant, save in *the most rapid current of a stream*, where they cling to the stones or rocks, generally in quite deep water. They ~~adhere~~ adhere to these stones with no ordinary tenacity, and it requires some exertion often to dislodge them. As one might suppose, their peculiar fondness for the most rapid parts of the most rapid rivers is not favorable to perfection of specimens; and hence, in this genus, ~~the~~ erosion of the apex forms, in most cases, a conspicuous character. ~~The~~ *Io* seems to be closely allied to ~~the~~ *Anculosa* in this respect, and inhabits deeper water. Geese are said to devour the *Melanie* in great quantities, and often to suffer from the abundance of such a diet.

Should his life and strength be continued, the author hopes, in due season, to furnish a complete monograph of the Melanidæ of the United States, in which an attempt will be made to establish the *true* species, to rectify the nomenclature of those regarded as erroneous, and to perfect such previous descriptions as were founded on insufficient material.

1. *Melania athleta.*

Plate II. Fig. 1.

T. conicâ, subglabrâ, fusco-corneâ, juxta suturas pallidiore; spirâ elevatâ; anfractibus 10, subplanis, obscurè plicatis, plicis deorsum obsolescentibus; suturis impressis; aperturâ ovatâ, intus albido-rubescente; columellâ incurvâ, in sinum tenuem productâ.

Shell conical, nearly smooth, dark horn color; spire much elevated; whorls 10, nearly flat, with faint longitudinal ribs, most distinct on the upper part of the whorls; sutures well marked; aperture small, ovate, within whitish, tinged near the base with rose; columella rounded, and forming a slight sinus at base.

Length 1.25 inches (32 millimetres). Diam. 0.40 inch (10 millim.).

Length of aperture 0.40 inch (10 millim.).

Breadth of do. 0.23 inch (6 millim.).

Habitat.—Tennessee.

My cabinet. Cab. Lyc. Nat. Hist., N. Y. B. W. Budd.

Obs.—A stout species, and one of the most beautiful with which I am acquainted. The ribs are not strongly expressed, and on the lower whorls are nearly obsolete, having there the appearance of striæ of growth merely. Body whorl a little angulated at base.

2. *Melania viridula.*

Plate II. Fig. 2.

T. conicâ, glabrâ, subcrassâ, prasinâ; spirâ elevatâ; anfr. subconvexis;

Descriptions of New Fluvialile Shells.

suturis impressis; aperturâ ovatâ, parvâ, intûs albidâ; labro sinuato columellâ incurvâ, in sinum profundum productâ.

Shell conical, smooth, rather thick; olive green; spire much elevated; whorls 8-9, slightly convex; sutures impressed; aperture elliptical, small, within whitish, outer lip much waved or auger shaped, extending forward at base, and forming a broad sinus in that region.

Length 1 inch (26 millim.). Diam. 0.35 inch (9 millim.).

Length of aperture 0.32 inch (8 millim.).

Breadth of do. 0.16 inch (4 millim.).

Habitat.—Tennessee.

My cabinet. Cab. N. Y. Lyc. Nat. Hist. B. W. Budd, M. D.

Obs.—Somewhat like *M. Saffordi* Lea, but is clearly distinguishable by its more elongated form, its greater number of whorls, and size and color of aperture. Differs from *M. regularis* Lea by its less number of whorls, and their convexity, as well as by its peculiar green color.

3. *Melania hastata.*

Plate II. Fig. 3.

T. conicâ, glabrâ, subcrassâ, nigro-castaneâ; spirâ elevatâ; anfr. 8-9, vix convexis, striis spiralibus exilibus raris cinctis, ultimo vix angulato; lineâ flavâ prope basim obscure cincto; suturis leviter impressis, albolineatis; aperturâ parvâ, elongato-ovatâ, intûs purpureâ; labro sinuato; columellâ tortâ, incurvâ, purpureâ, in sinum latum productâ.

Shell conical, smooth, rather solid, dark chestnut; spire rather obtusely elevated; whorls 8-9 in number, slightly convex, with occasional delicate spiral striæ, the upper ones subcarinate; body whorl subcarinate, with a narrow yellowish band beneath the angle; sutures moderately impressed, yellowish; aperture

Descriptions of New Fluviatile Shells.

small, pyriform, purple within; columella and outer lip much twisted together, forming a broad, rather deep, reflexed sinus at base.

Length 0.90 inch (23 millim.). Diam. 0.30 inch ($7\frac{1}{2}$ millim.).

Length of aperture 0.30 inch ($7\frac{1}{2}$ millim.).

Breadth of do. 0.16 inch (4 millim.).

Habitat.—Alabama.

My cabinet.

Obs.—A fine symmetrical species, which seems to have no affinities so close as to be easily confounded with any other. Its most prominent characters, perhaps, are the nearly uniform diameter of the two or three lower whorls, while above these the spire curves more rapidly to the rather acute apex, and the dark purple aperture. These two points will readily serve to distinguish it.

4. *Melania iota.*

Plate II. Fig. 4.

T. conicâ, glabrâ, corneo-virente; spirâ acutâ, elevatâ; anfr. 10, superioribus carinatis, inferioribus convexis; suturis impressis; aperturâ elongato-ovatâ, intus albidâ; columellâ roseâ, incurvâ, in sinum angustum productâ.

Shell conical, smooth, greenish horn-colored; spire acutely elevated; whorls about 10, lower ones convex, upper whorls with a strong carina below the middle; sutures impressed; aperture pyriform, small, within whitish; columella but little rounded, not indented, sinus very small.

Length 0.78 inch (20 millim.). Diam. 0.25 (6 millim.).

Length of aperture 0.26 inch (7 millim.).

Breadth of do. 0.15 inch (4 millim.).

Descriptions of New Fluvial Shells.

Habitat. ———.

My cabinet. Cab. Lyc. Nat. Hist., N. Y.

Obs.—A beautiful, slender, graceful species, in form not unlike *M. percarinata* Con. and *perangulata* Con., but differs from both in coloring, in the want of a crenulated or beaded line on the volutions, and in other respects. The upper whorls are often obscurely folded down to the carina on each, where they are arrested; below the carina the whorls shelve towards the suture, which thus becomes situated in a deep furrow. It cannot be confounded with *M. elevata* Say, which has flat whorls, a dark epidermis, and a totally different aperture. The columella of the present species is faintly tinged with purple. I am not quite sure as to the habitat of this species, but think it an Ohio shell.

5. **Melania altipeta.**

Plate II. Fig. 5, a, b.

T. conicâ, glabrâ, subcrassâ, corneâ; spirâ elevatâ; anfr. 10, convexis, superioribus carinatis, vel modo striatis, ultimo 1-2-fasciato; suturis distinctè impressis; aperturâ parvâ, ovatâ, intus fasciatâ; columellâ incurvâ, in sinum effusum productâ.

Shell conical, smooth, horn-colored, thick; spire elevated; whorls about 10, small, convex, the upper ones carinate, or only striate; sutures distinctly impressed; aperture small, elliptical, banded within; a small but distinct sinus, with an acute termination at base.

Length 0.62 inch (16 millim.). Diam. 0.24 inch (6 millim.).

Length of aperture 0.21 inch (5 millim.).

Breadth of do. 0.10 inch (2½ millim.).

Habitat.—Raccoon Creek, Vinton county, Ohio.

My cabinet.

Descriptions of New Fluvial Shells.

Obs.—A very graceful, rather slender species, with somewhat of a club-shaped form by its bulbous body whorl. Two specimens only are before me; one has a narrow band at the base of the body whorl, the other has an additional band on the penultimate, faintly indicated also on the upper whorls of the spire.

It may be compared with *M. conica* Say, but is much more elevated, the whorls are more narrow and crowded, as well as more numerous than in that species, and the aperture much smaller, being only about one-fourth the length of the shell.

From *M. neglecta* it differs by its more slender form, smaller and more condensed whorls, and by its entirely different aperture. The apical whorls seem to be slightly folded.

6. *Melania latitans.*

Plate II. Fig. 6.

T. conicâ, tenui, fulvo-virente; spirâ elevatâ; anfr. 8-9, convexis, vel subangulatis, transversè rudè striatis, striis spiralibus-impressis, infernè obsoletioribus, fasciisque obscuris cinetis; aperturâ rotundo-ovatâ, intùs rubescente et purpureo fasciatâ; labro sinuoso; columellâ incurvâ, purpureâ, in sinum latum productâ.

Shell conical, obscurely striate, greenish brown, rather thin; spire elevated; whorls 8-9, convex or subangulated, with three or four obscure transverse striæ above the angle, which become obsolete below it, and one or two brown bands at and above the middle of each turn; sutures distinct; lines of growth coarse, amounting almost to ribs on the lower whorls; aperture not large, sub-rotund or very broad ovate, reddish within, and banded; columella very much curved and twisted, with a small sinus at base.

Length 1 inch (26 millim.). Diam. 0.39 inch (10 millim.).

Length of aperture 0.34 inch (9 millim.).

Breadth of do. 0.21 inch (5 millim.).

Descriptions of New Fluvial Shells.

Habitat.—Mammoth Cave, Kentucky.
My cabinet.

Obs.—Bears no very strong resemblance to any known species; but is perhaps more nearly allied to *M. rufa* Lea and *M. teres* Lea in its elevated spire and convex whorls. It wants, however, the smooth whorls of the former, its dark red color, and elliptical aperture. From the latter it may be distinguished by its striated whorls, its less slender proportions, the absence of folds, its obscure bands, and white aperture. This species is unusually interesting, from the fact that it is the first species in Conchology known to have been procured from the subterranean river flowing through the Mammoth Cave.

7. *Melania vittata.*

Plate II. Fig. 7.

T. conicâ, subglabrâ, fusco-virente; spirâ elevatâ; anfr. 9, planis, lineis duabus fuscis ornatis, quarum inferior in angulum prope suturam revolvit, lineis in anfr. supremis obsoletis, in ultimo 4 vel 5 conspicuis; suturis valdè impressis; aperturâ ovatâ, intùs albidâ, fusco quadrilineatâ; columellâ incurvâ, in sinum tenuem productâ.

Shell conic, nearly smooth; spire elevated; whorls about 9, flat, with two fine, distant, brown lines on each, the lower one revolving upon an angle near the suture; lines obsolete on the extreme upper whorls, and increased to four or five on the body whorl, visible also within the aperture; sutures deeply impressed; aperture ovate, within whitish, but exhibiting also the brown lines of the epidermis; columella curved, sinus inconspicuous.

Length 0.86 inch (22 millim.). Diam. 0.32 inch (8 millim.).

Length of aperture 0.33 inch (8 millim.).

Breadth of do. 0.16 inch (4 millim.).

Descriptions of New Fluvial Shells.

Habitat.—Alabama.

My cabinet. Cab. Lyc. Nat. Hist., N. Y. B. W. Budd, M. D.

Obs.—May be compared with *M. Taitana* Lea, but may be distinguished by its flat, subangulated whorls. It also exhibits somewhat coarse striæ (amounting nearly, if not quite, to ribs in some specimens) upon all the whorls, even the body whorl is no exception. The sutures are also deeply impressed, the contiguous whorls shelving towards each other to form quite a furrow there. Upper whorls carinate.

It is a very beautiful species, the distinct, reddish brown, hair-like bands contrasting finely with the yellowish brown color of the general shell.

8. **Melania nigrocincta.**

Plate II. Fig. 8.

T. conicâ, glabrâ, tenui, fuscâ ; spirâ modicè elevatâ : anfr. 6, superioribus bifasciatis et supra suturam subangulatis, ultimo convexo, nigro-4-fasciatâ ; suturis impressis ; aperturâ ovatâ, intus fasciatâ ; columellâ lineari, parùm incurvâ, purpureâ, in sinum parvum productâ.

Shell conical, smooth, not much or acutely elevated ; thin, brown, whorls about 6, sub-convex, often slightly angulated near the suture below : sutures impressed ; body whorl not large, a little angulated, ornamented with four very dark bands, the upper and lower of which are distant, and the central ones approximate or confluent : aperture somewhat large, elliptical, banded within ; columella regularly, but not remarkably curved or indented, with a small sinus.

Length 0.58 inch (15 millim.). Diam. 0.27 inch (7 millim.).

Length of aperture 0.27 inch (7 millim.).

Breadth of do. 0.15 inch (4 millim.).

Descriptions of New Fluvial Shells.

Habitat.—Tennessee.

My cabinet. Cab. Lyc. Nat. Hist., N. Y. B. W. Budd, M.D.

Obs.—A rather small species, which, when once seen, will readily be recognised afterwards. Compares with *M. subangulata nobis*; it is less robust, more acute, and the bands are of a totally different character; the texture is quite thin, and the dark bands are distinctly seen in the aperture, through the substance of the shell. It has somewhat of the club-shaped form of that group of shells of which *M. claviformis* Lea and *M. castanea* Lea, are members, but is more angular, and its dark bands and thin texture are prominent differences.

9. *Melania subangulata.*

Plate II. Fig. 9.

Testâ conicâ, glabrâ, subcrassâ, fusco-virente; spirâ obtusè elevatâ; anfr. 6, convexis, superioribus bifasciatis, infrâ sub-angulatis, ultimo 6-fasciato, fasciis mediis sæpe confluentibus; suturis valdè impressis; aperturâ oblongo-ovatâ, intùs rubente, fasciatâ; columellâ incurvâ, purpurascente sinum vix formante.

Shell conical, smooth, rather thick; spire obtusely elevated; whorls about 6, convex, sub-angulated below the middle, brown banded; sutures deeply impressed, and situated in a deep furrow formed by the inclination of two whorls towards each other at that part; lower band below the angulation, upper one midway between it and the suture above; body less angulated, with about six reddish-brown bands, the upper and lower of which are distinct and distant, the central ones confluent, more distinct in the interior; aperture small, long-ovate, within reddish and banded; columella regularly curved, purplish, no sinus at base.

Length 0.62 inch (17 millim.). Diam. 0.30 inch ($7\frac{1}{2}$ millim.).

Descriptions of New Fluviatile Shells.

Length of aperture 0.30 inch ($7\frac{1}{2}$ millim.).

Breadth of do. 0.17 inch (4 millim.).

Habitat.—Alabama.

My cab. Cab. Lyc. Nat. Hist., N. Y. B. W. Budd, M.D.

Obs.—Somewhat allied to *M. rufescens* Lea, in general form, but that species has regularly convex whorls and no bands, and has at least two more whorls. The number of whorls in this species cannot, however, with certainty be determined, since in all my specimens, seventy or eighty in number, every one is decollate, but the form does not indicate the loss of more than two whorls at most, and only four are present. *M. rufescens* is described as having eight. A few of the specimens are irregularly and strongly striate on the body whorl.

10. *Melania brunnea.*

Plate II. Fig. 10.

T. conico-ovata, glabra, tenui, fusco-virente; spirâ obtusè elevata; anfr. 6, superioribus, subplanis, ultimo convexo, interdum trifasciato; suturis impressis; aperturâ magnâ, ovata, intus albido-rubescente; columellâ incurvâ, sinum vix formante.

Shell elongate-ovate, smooth, thin, brown; spire obtusely elevated; whorls six, nearly flat; body whorl convex, sometimes three-banded; sutures irregularly but decidedly impressed; aperture large, broad-elliptical, within whitish, or tinted with reddish; columella somewhat indented below the middle, and forming a very small sinus at base.

Length 0.76 inch (20 millim.). Diam. 0.32 inch (8 millim.)

Length of aperture 0.37 inch (9 millim.).

Breadth of do. 0.23 inch (6 millim.).

Habitat.—Alabama.

My cab. Cab. Lyc. Nat. Hist., N. Y. B. W. Budd, M.D.

Descriptions of New Fluvial Shells.

Obs.—A smooth, fine species, with no very prominent characters. May be compared with *M. perfusca* Lea, but is less cylindrical, and much less ponderous; the whorls are also more convex, and the sutures more distinctly impressed; it is altogether a broader and thinner shell. Some specimens are finely banded, the lower band being often concealed partially by the revolutions of the succeeding whorl. The body whorl has three bands in the *variety*, and these also appear within the aperture. All the specimens before me, some fifty in number, are more or less decollate, and only two or three are banded.

11. **Melania virens.**

Plate II. Fig. 11.

T. ovato-conicâ, glabrâ, subcrassâ, virente; spirâ obtusè elevatâ, decollatâ; anfr. superstitibus 5, convexis, ultimo amplo; suturis valdè impressis; aperturâ ovatâ, magnâ, albido-cœrulescente; columellâ incurvâ, subreflexâ, in sinum inconspicuum productâ.

Shell ovate-conic, smooth, rather thick, spire rather obtusely elevated, with a somewhat convex outline, and with sutures decidedly impressed; color light uniform green, paler towards the summit; whorls, five only remaining, and indications of one lost by truncation, convex; aperture rather large, elliptical, bluish within; columella well rounded, not perceptibly indented, and with a small recurved sinus at base.

Length 0.87 inch (22 millim.). Diam. 0.40 inch (10 millim.).

Length of aperture 0.42 inch (10 millim.).

Breadth of do. 0.21 inch (5 millim.).

Habitat.—Alabama.

My cabinet.

Obs.—A broad species with an outline and proportions not

Descriptions of New Fluvial Shells.

unlike a *Paludina*, to which genus its pale uniform green color also seems to ally it. I am not sure that it should not be referred to that genus. It cannot be compared with any known species.

12. *Melania ampla*.

Plate II. Fig. 12.

T. ovato-conicâ, glabrâ, tenui, fulvo-virente; spirâ obtusè elevatâ; anfr. 5-6, subconvexis, superioribus viridi unifasciatis, ultimo amplo, convexo, viridi 4-fasciato; suturis irregulariter profundè impressis; aperturâ magnâ, ovatâ, intus rubescente, purpureo-fasciatâ; columellâ parùm incurvâ, subfoveatâ, infernè subeffusâ.

Shell ovate-conic, smooth, thin; spire obtusely elevated; whorls 5-6, sub-convex; body whorl ample, surrounded with four dark greenish bands; sutures irregularly and deeply impressed; aperture large, ovate, within roseate and banded; columella rounded, slightly indented, and a little effuse at base.

Length 1.25 inch (32 millim.). Diam. 0.58 inch (15 millim.).

Length of aperture 0.58 inch (15 millim.).

Breadth of do. 0.30 inch (8 millim.)

Habitat.—Alabama.

My cabinet.

Obs.—Compared with *M. olivula* Con., it is a larger, much less solid species, the epidermis is thinner, less polished, and has not the finely contrasting colors which render *M. olivula* so lively and pleasing; differs from *M. fuliginosa* Lea in being far less ponderous, with fewer and less distinct bands, by the distinct angle passing round the shell near the top of the mouth, and by its capacious aperture; which two last points apply with equal force to "*olivula*." Although in some points, and particularly in its ample mouth, it resembles *M. florentina* Lea,

Descriptions of New Fluvial Shells.

it has not the shouldered whorls and tubercular armature which distinguish that beautiful species.

The bands within the aperture do not reach its outer edge, but a broad, plain area is left between.

13. **Melania ambusta.**

Plate II. Fig. 13.

T. ovata, glabra, subtenui, castanea; spirâ obtusè elevatâ, anfr. 6 subconvexis, ultimo magno, substriato; suturis impressis; aperturâ magnâ, elongato-ovatâ, intus rubescente; columellâ subfoveatâ, sinum vix formante.

Shell ovate, rather thin; smooth, chocolate-colored; spire obtusely elevated; whorls about 6, sub-convex; body whorl large, substriate; sutures moderately impressed; aperture large, narrow ovate, reddish within; columella indented, with a broad, not very remarkable sinus at base.

Length 1 inch (26 millim.). Diam. 0.48 inch (12 millim.).

Length of aperture 0.48 inch (12 millim.).

Breadth of do. 0.23 inch (6 millim.).

Habitat.—Alabama.

My cab. Cab. Lyc. Nat. Hist., N. Y. B. W. Budd, M.D.

Obs.—In form not unlike *M. olivula* Con., but its very peculiar plain, dark, chocolate-colored epidermis and sombre interior will at once distinguish it from all other species. A few irregular striæ are visible on the body whorl, and a very obscure narrow band may be observed near the sutures; in all of the three specimens before me the columella is slightly reflected over a narrow umbilical opening near the base, which appears almost disconnected from the outer lip as in *Achatina*. The burnt appearance of the shell has suggested its specific name.

14. **Melania arachnoidea.**

Plate II. Fig. 14.

T. conicâ, tenui, fusco-corneâ; spirâ gracili, elevatâ; anfr. 12, plicis transversis et liris spiralibus decussatis, lirâ centrali in carinam elevatâ, subter quam plicæ evanescent; suturis valdè impressis; aperturâ parvâ, ovatâ, intus purpurascente; columellâ incurvâ, in sinum angustum productâ.

Shell conic, rather thin, horn-colored; spire slender and much elevated; whorls 12, very strongly striated and ribbed, particularly the upper ones; the ribs extend only to a prominent, acute carina on each whorl, situated below the middle, between which and the suture below, one or two coarse striæ alone are visible; sutures deeply impressed; aperture very small, ovate, purplish within; columella regularly curved, without indentation, and with but a small, very narrow sinus at base.

Length 1 inch (26 millim.). Diam. 0.28 inch (7 millim.).

Length of aperture 0.22 inch (5½ millim.).

Breadth of do. 0.15 inch (4 millim.).

Habitat.—A small stream emptying into the Tennessee river, near Loudon, Tennessee.

Cab. Lyc. Nat. Hist., N. Y. J. G. Anthony. B. W. Budd.

Obs.—This is one of the slenderest and most elevated of the genus; more than forty specimens are before me, and they are very constant in all their characters; it comes nearest to *M. striatula* Lea by its folds and striæ, but should not be confounded with it, being different in every other particular; the number of whorls is greater by one half, the *striatula* having only eight; its proportions are altogether more slender, the *striatula* standing as 21 to 49, while this is 28 to 100. The present species is also much more folded and rough than the *striatula*, which is

Descriptions of New Fluviatile Shells.

essentially a *striate* shell. Upon the older specimens the folds are nearly obsolete on the two lower whorls, being *there* coarsely striate only. About twelve striæ on the body whorl and six on the penultimate; more elevated in the centre, which renders these whorls sub-angulated; lines of growth strong, by reason of which the two last whorls have quite a varicose appearance.

15. **Melania eliminata.**

Plate II. Fig. 15.

T. elongato-conicâ, tenui, castaneâ; spirâ gracili, elevatâ; anfr. 8, convexis transversè plicatis et spiraliter striatis, plicis striisque in anfr. inferioribus evanescentibus: suturis impressis; aperturâ parvâ, ovatâ, purpurascente; labro sinuoso; columellâ incurvâ, in sinum angustum productâ.

Shell conic, thin, brownish; spire slender, elevated; whorls about 8, convex, with transverse folds and spiral striæ, both of which, however, disappear towards the lower portion of each whorl, and are hardly visible on the last whorl; sutures deeply impressed; aperture small, ovate, within translucent, exhibiting the exterior coloring through its substance; columella but little rounded except near its base, where with the much curved lip it forms a sharp, narrow sinus.

Length 0.80 inch (21 millim.). Diam. 0.24 inch (6 millim.).

Length of aperture 0.26 inch (7 millim.).

Breadth of do. 0.15 inch (4 millim.).

Habitat.—Kentucky, near Owenboro'.

My cab. Cab. Lyc. Nat. Hist., N. Y.

Obs.—This is a very slender and elevated species, resembling in this respect *M. comma* Con., from which it differs very materially by the character of its folds and striæ, which are more decided, being nearly as prominent, though less distant, than

Descriptions of New Fluviatile Shells.

in *M. Curryana* Lea; the striæ revolve round the whorls and over the ribs without being interrupted by them; differs from *M. Edgariana* Lea, by its brown color, more slender form, less convex whorls, and thinner texture; it is more slender than *M. decora* or *costulata*, and less acute, the whorls tapering more gradually to the apex; on the upper whorls there are about five striæ, the lowest of which is much more elevated than the others, and the folds are arrested by it near the suture. The penultimate whorl is often sub-angulated at its base.

16. **Melania baculum.**

Plate II. Fig. 16.

T. elongato-conicâ, crassâ, fulvo-castaneâ; spirâ perelevatâ, decollatâ; anfr. superst. 8, subplanis, plicis transversis striisque spiralibus decussatis, quæ in anfr. inferioribus obsolescunt; suturis impressis, flavescens; aperturâ ovatâ, intus purpurascens; columellâ incurvâ, foveatâ, in sinum tenuem productâ.

Shell conical, thick; of a dull, reddish-brown color, with a lighter shade near the upper part of each whorl. Spire much elevated, not diminishing rapidly as it ascends, and with nearly a rectilinear outline; whorls 8 remaining, and with an appearance of having lost several by truncation; hardly convex and with a deeply impressed suture; aperture small, broadly ovate, light red within; columella rounded, indented, with a small sinus.

Length 1.28 inch (33 millim.). Diam. 0.48 inch (12 millim.).

Length of aperture 0.35 inch (9 millim.).

Breadth of do. 0.20 inch (5 millim.).

Habitat.—Tennessee.

My cab. Cab. Lyc. Nat. Hist., N. Y. B. W. Budd, M.D.

Obs.—The most striking characteristic of this species is its

Descriptions of New Fluvial Shells.

robust cylindrical form, combined with its pale sutural region; compared with *M. teres* Lea, it is much less slender and turreted, much more plicate, and the whorls are less inflated. *M. rufa* is not folded, and is a more acutely elevated species. The curve in the columella resembles that of *M. columella* Lea, but that shell is much less elongated, has only six whorls, and is destitute of distinct folds.

17. **Melania incrassata.**

Plate II. Fig. 17.

T. conicâ, glabrâ, crassâ; spirâ elevatâ; anfr. 8-9, perconvexis, vix biangulatis, ultimo spiraliter striato, in medio constricto; suturis valdè impressis; aperturâ ovatâ, intus rubescente; columellâ reflexâ, in sinum profundum productâ.

Shell conical, smooth, thick; spire elevated; whorls 8-9, very convex, somewhat bi-angulated; sutures deeply impressed; body whorl striated, with a constriction about the middle, which also extends to the penultimate whorl; aperture ovate, within reddish; columella not indented, reflected, sinus deep.

Length 1.12 inch (29 millim.). Diam. 0.45 inch (12 millim.).

Length of aperture 0.37 inch (9 millim.).

Breadth of do. 0.18 inch ($4\frac{1}{2}$ millim.).

Habitat. ———.

My cabinet.

Obs.—Only one specimen has come under my notice, which, however, is so unlike any other that I cannot hesitate to consider it new.

It is a thick, ponderous species, with narrow, convex or bi-angulated whorls, faintly banded on the angulations.

18. **Melania excavata.**

Plate II. Fig. 18.

T. ovato-conicâ, glabrâ, crassâ, castaneâ; spirâ obtusè elevatâ, decollatâ; anfr. superst. 3-4, planis vel subconcavis, ultimo in medio subangulato, suprâ angulum subexcavato, striis incrementi rudibus; suturis distinctis; aperturâ 'ovatâ, sursùm subcanaliculatâ, intùs rubescente; columellâ incurvâ, reflexâ, sinum non formante.

Shell ovate-conic, smooth, olivaceous, thick; spire obtusely elevated, decollate; whorls 3-4, remaining flat or concave; sutures distinct; penultimate and body whorl with a broad, deep, concave excavation, their edges being elevated into an obtuse carina, tipped with a lighter color; lines of growth very strong; aperture not large, ovate, reddish within; columella regularly curved, thickened by a deposit of calcareous matter, purplish and white, indented near its base, without any sinus.

Length (of an eroded example) 0.84 inch (21 millim.).

Diam. (do. do.) 0.44 inch (11 millim.).

Length of aperture 0.40 inch (10 millim.).

Breadth of do. 0.22 inch ($5\frac{1}{2}$ millim.).

Habitat.—Alabama.

My cabinet.

Obs.—An unadorned species of a dull olive color, not easily confounded with any of its congeners. Differs from *M. fusiformis* Lea by its broad, more elevated spire, its purple mouth, unadorned with bands, but above all, by the peculiar excavation on the lower whorls, which is so peculiar as to distinguish this species from all others.

19. **Melania casta.**

Plate II. Fig. 19.

T. conicâ, plerumque glabrâ, crassâ; spirâ obtusè elevatâ; anfr. 6-7,

Descriptions of New Fluvial Shells.

subplanis, ultimo subangulato supernè glabro, infernè liris quinis exilibus cincto; suturis impressis; aperturâ elongato-ovatâ, intus albidâ, submargaritaceâ; columellâ subrectâ, in sinum modicum productâ.

Shell conical, nearly smooth, thick; spire obtusely elevated; whorls 6-7, nearly flat; sutures well impressed; upper whorls smooth, or only modified by the lines of growth, which are coarse and distinct; body whorl with five prominent striæ below the middle, of which the lower three also revolve within the aperture, on the columella; aperture small, elliptical, within whitish, subnacreous; columella not indented, sinus small.

Length 0.75 inch (19 millim.). Diam. 0.30 inch (8 millim.).

Length of aperture 0.33 inch (8 millim.).

Breadth of do. 0.17 inch (4 millim.).

Habitat.—Alabama.

My cabinet.

Obs.—A singularly pale, greenish-white species, the distinguishing marks of which are, its regular, subcylindric form, and the smooth spire, combined with the prominent striæ at the base of the shell. These are characters which I do not recognise on any other species so combined. There is also a distinct carina on the penultimate whorl, near the top of the aperture, above which may be observed a faint interrupted line.

20. *Melania textilosa.*

Plate II. Fig. 20.

T. conicâ, crassâ, stramineâ; spirâ parùm elevatâ; anfr. 7-8, obscurè liris et subnodosis, superioribus subplanis, ultimo subconvexo, infra medium glabro; suturis impressis; aperturâ ovatâ, roseo-albidâ; columellâ incurvâ, reflexâ, in sinum tenuem productâ.

Shell conical, thick; color uniform, pale greenish yellow; spire not acutely elevated; whorls 7-8, nearly flat, obscurely striate and sub-nodulous; body whorl coarsely, but not thickly

Descriptions of New Fluviatile Shells.

striate on its upper half; sutures impressed; aperture rather large, ovate, whitish, inclining to roseate.

Length 0.88 inch (23 millim.). Diam. 0.40 inch (10 millim.).

Length of aperture 0.39 inch (10 millim.).

Breadth of do. 0.20 inch (5 millim.).

Habitat.—Georgia.

My cabinet.

Obs.—In form, like *M. Duttoniana* Lea, but without any of the ornamental decorations of that species. The nodules are not so distinct, appearing more like interrupted folds. The striæ on the body whorl are not uniformly distributed, but about the middle there is a plain surface, or groove which becomes more decidedly a furrow on the penultimate whorl.

21. *Melania curvilabris.*

Plate III. Fig. 1, a, b.

T. conicâ, subcrassâ, corneo-virente; spirâ elevatâ; anfr. 7-8, convexis, subangulatis, ultimo utrinque angulato, in medio latè constricto; suturis irregulariter valdè impressis; aperturâ irregulari, intùs albidâ; labro profundè retrorsùm sinuato; columellâ valdè incurvâ, subfoveatâ, in sinum profundum productâ.

Shell conical, smooth, rather thick, greenish horn-color; spire elevated; whorls 7-8, convex or subangulated; body whorl angulated, with a depression broad but not deep; sutures deeply and irregularly impressed; aperture very irregular, by the twisted columella and the sinuous curving of the outer lip, within whitish; outer lip deeply and singularly curved, so as to give this part of the shell almost a *pleurotomose* character; columella very much curved and indented, leaving a small umbilical indentation, and having a distinct sinus at base.

Descriptions of New Fluvial Shells.

Length 0.72 inch (19 millim.). Diam. 0.30 inch (8 millim.).
Length of aperture 0.25 inch (6 millim.).
Breadth of do. 0.15 inch (4 millim.).

Habitat.—Tennessee.

My cabinet. Cab. Coleman Sellers, Cincinnati, O.

Obs.—May be compared with *M. elegantula* in general form, but its peculiarly curved outer lip will at once distinguish it from all others.

22. **Melania elegantula.**

Plate III. Fig. 2.

T. ovato-conicâ, glabrâ, viridulâ; spirâ brevi; anfr. 5-6, humerosis, superioribus suprâ suturam nigro-unifasciatis, ultimo subcylindrico, fasciis fuscis 2 vel 3 cincto; suturis inconspicuis; aperturâ elongato-ovatâ, intus fasciatâ; labro subsinuato; columellâ incurvâ, in sinum tenuem productâ.

Shell obtusely conical, smooth; whorls 5-6, irregularly shouldered and angulated; body whorl dark olive-green color, with two or three darker bands, which are visible also within the aperture; upper whorls of a very light green color, with *one* light brown sub-central band, and *another* so near the upper part of the whorl as to be almost concealed by the suture; sutures rather obscure; aperture rather large, irregularly ovate; columella much indented near its base, outer lip sinuous.

Length 0.60 inch (15 millim.). Diam. 0.25 inch (6 millim.).
Length of aperture 0.28 inch (7 millim.).
Breadth of do. 0.16 inch (4 millim.).

Habitat.—Kentucky.

My cabinet. Cab. Lyc. Nat. Hist., N. Y. B. W. Budd, M. D.

Obs.—A singularly ornamented species, of which only two

specimens are before me, and which cannot be compared with any described species. The apex is eroded in the specimens under observation, and only five whorls are visible, but it evidently has one more when perfect. The whorls form a shelving shoulder from the suture, and are then nearly flat, the body whorl being, perhaps, slightly concave. Altogether it presents a remarkable and beautiful appearance, and no one need be at a loss to recognise it after once having seen a specimen. Three bands are visible in the interior.

23. **Melania pupoidea.**

Plate III. Fig. 3.

T. ovato-conicâ, glabrâ, crassâ, stramineo-virente; spirâ obtusè elevatâ; anfr. 7, subconvexis, gradatis, superioribus fusco-unifasciatis; ultimo 4-lineato; suturis valdè impressis; aperturâ elongato-ovatâ, intus albidâ, fasciatâ; labro sinuoso, columellâ rotundatâ, in sinum tenuem productâ.

Shell ovate-conic, smooth, rather thick; spire obtusely elevated, with a decidedly convex outline, and a well impressed suture; whorls 7, convex, nearly entire at the apex; color pale green, with one linear band revolving on the spire, and four broader and more distinct bands on the body whorl; aperture small, narrow-ovate, diaphanous, with four distinct brown bands within; columella rounded, not indented; outer lip curved and extended forward; sinus small.

Length 0.87 inch (22 millim.). Diam. 0.35 inch (9 millim.).

Length of aperture 0.38 inch (10 millim.).

Breadth of do. 0.17 inch (4 millim.).

Habitat.—Alabama.

My cabinet.

Obs.—This belongs to that group of which *M. olivula* Conrad

Descriptions of New Fluvial Shells.

may be considered the type. From that shell it differs, however, in being more elongate, and less ornamented with bands, as well as by its paler and less varnished epidermis. Compared with *M. proteus* Lea it is even more elongate and less acute; the aperture is entirely different, and it wants the tuberculous shoulder which distinguishes that species. Its resemblance to the pupæ of some of the insect tribes has suggested its characteristic specific name.

24. **Melania tecta.**

Plate III. Fig. 4.

T. conicâ, tenui, nigro-fuscâ; spirâ elevatâ; anfr. 7-8, planis, suprâ suturas carinatis; suturis valdè impressis; aperturâ ovatâ, intùs purpurascente et obscurè fasciatâ; columellâ incurvâ, in sinum tenuem productâ.

Shell conical, thin, brown; spire elevated; whorls 7-8, flat, with a distinct, but not elevated carina on each at its lower edge, near the suture; sutures very deeply impressed; aperture oval, within reddish and lightly banded; columella curved, sinus small.

Length 0.60 inch (15 millim.) Diam. 0.26 inch ($6\frac{1}{2}$ millim.).

Length of aperture 0.23 inch (6 millim.).

Breadth of do. 0.14 inch ($3\frac{1}{2}$ millim.).

Habitat.—Ohio.

My cab. Cab. Lyc. Nat. Hist., N. Y. B. W. Budd, M.D.

Obs.—May be compared with *M. gracilior*, Anth., but is readily distinguishable by its more slender proportions, thinner texture, lighter color, and above all by its peculiarly shaped whorls, which, increasing regularly, and being carinate at their bases, have somewhat the appearance of the roof of a house, hence its name. Lines of growth distinct; one or two indis-

tinct, narrow bands are often visible on the shell; a very neat and graceful species.

25. *Melania imbricata.*

Plate III. Fig. 5.

T. conicâ, glabrâ, suberassâ, corneâ; spirâ elevatâ; anfr. 8-9, superioribus planis, utrinque angulatis, ultimo subconvexo, indistinctè biangulato; suturis valdè impressis; aperturâ elongato-ovatâ, intus albidâ, columellâ incurvâ, in sinum tenuem productâ.

Shell conical, nearly smooth, rather thick, light horn-colored; spire elevated, but not acutely so; whorls 8-9, flat; lines of growth distinct, having almost the appearance of ribs; two lines, distant, slightly visible, surround each whorl, and from these the whorls incline towards each other to form a broad groove between them; sutures well impressed; aperture small, narrow ovate, within whitish; columella much indented and curved, forming a slight sinus at base.

Length 0.88 inch (23 millim.). Diam. 0.30 inch (8 millim.).

Length of aperture 0.33 inch (8 millim.).

Breadth of do. 0.21 inch (5 millim.).

Habitat.—Alabama.

My cab. Cab. Lyc. Nat. Hist., N. Y. B. W. Budd, M.D.

Obs.—A fine symmetrical shell, some of its varieties approaching *M. sordida* Lea in form, but differing in every other respect. The whorls enlarge regularly, and the lower raised line on the whorls being consequently more prominent, the spire has somewhat an imbricated appearance, giving rise to its specific name. The specimens before me, twelve in number, are all decollate.

The upper whorls are often rather prominently ribbed, and the concentric lines thereby rendered crenulous.

26. **Melania pagodiformis.**

Plate III. Fig. 6.

T. conică, tenui, fuscă; spiră obtusè elevată; anfr. 7-8, carină elevată, acută, suprà suturam cinctis, ultimo carinis duabus instructo; suturis valdè impressis; apertură ovată, infrà subangulată, intus albidă; columellă incurvâ, in sinum tenuem angustum productă.

Shell conical, thin, brownish-olive; spire obtusely elevated; whorls 7-8, smooth; the upper ones are surrounded by a sharp elevated keel just above the suture; the body whorl is angulated in the middle by two keels, of which the upper is the more prominent; sutures deeply impressed; aperture ovate, ending in an acute angle below, whitish within; columella rounded, produced into a narrow but slight sinus.

Length 0.50 inch (13 millim.). Diam. 0.28 inch (7 millim.).

Length of aperture 0.26 inch (7 millim.).

Breadth of do. 0.14 inch ($3\frac{1}{2}$ millim.).

Habitat.—Battle creek, Tennessee.

My cab. Cab. Lyc. Nat. Hist., N. Y.

Obs.—Bears some resemblance to *M. acuto-carinata* Lea, but differs from it in many particulars. It is of a much lighter color, has the carina on every whorl, the body whorl not ex-cepted, its columella is not remarkably indented as in that species, and it is altogether a thinner and broader shell. The aperture is generally uncolored, but some specimens present a faint tinge of violet there.

27. **Melania eximia.**

Plate III. Fig. 7.

Testă conico-ovată, lirată, corneo-virente; spiră parum elevată; anfr.

Descriptions of New Fluvial Shells.

8-9; superioribus carinâ acutâ angulatis et fasciâ nigrâ cinctis, ultimo liris 4 et fasciis duabus cincto; suturis inconspicuis; aperturâ elongato-ovatâ, intus corneâ, bifasciatâ; labro valdè sinuoso; columellâ rectâ, in sinum profundum productâ.

Shell deeply sulcate and carinate, ovate; of a beautiful light apple-green color, ornamented with two dark-green bands, and an elevated, prominent carina of a light color revolving between them; spire not remarkably elevated, but acute, of a rather convex outline; whorls 8-9, somewhat convex, and with sutures not prominent, but channelled; body whorl with about four carinæ, the lowest one being indistinct; aperture small, sub-rhomboidal, with two bands in the interior, distant from each other and from the edge of the outer lip; outer lip much twisted, auger-like, causing the sinus, which is small, to curve backwards.

Length 0.60 inch (15 millim.). Diam. 0.28 inch (7 millim.).

Length of aperture 0.25 inch (6 millim.).

Breadth of do. 0.13 inch (3 millim.).

Habitat.—Tennessee.

My cabinet.

Obs.—A beautiful little shell, of a singularly bright, lively appearance; the colors are well contrasted, very distinct, and the prominent carinæ add to the general effect. On the upper whorls, but one band is visible, the lower one being concealed, or nearly so, by the revolutions of the spire. It cannot well be compared with any other species.

28. **Melania cristata.**

Plate III. Fig. 8.

T. rhomboideâ, carinatâ, subcrassâ, corneâ, obscure fasciatâ; spirâ brevi; anfr. 5, superioribus subplanis, ultimo supernè humeroso et in

Descriptions of New Fluvial Shells.

medio elevatè carinato; costà tenui sub carinam revolvente; aperturà rhomboideà, intùs carinà externà canaliculatà, fusco-lineatà; columellà rectà, in sinum acutum productà.

Shell carinate on the body whorl, rhomboidal; thin, horn-colored; upper whorls not carinate, but somewhat shouldered; whorls 5, flat, slightly concave, rapidly diminishing to the apex; sutures not remarkable; body whorl with a strong, well developed carina extending from the upper part of the aperture, and revolving round so as to be at its centre when it reaches the mouth again. The carina, and a smaller one below it, are indicated in the interior by a grooved channel with a dark band running through it. Aperture rhomboidal, banded within. Columella straight, with an acute sinus at base.

Length 0.50 inch (13 millim.). Diam. 0.34 inch (9 millim.).

Length of aperture 0.30 inch (8 millim.).

Breadth of do. 0.16 inch (4 millim.).

Habitat.—Alabama.

Obs.—Only one specimen of this remarkable species has come under my notice, but it is so widely different from all others that no one can for a moment doubt its distinctive character. The upper whorls are obscurely banded near the suture.

29. *Melania proscissa.*

Plate III. Fig. 9.

T. rotundo-ovatà, subcrassà, fuscà; spirà brevi; anfr. 5? convexis, superioribus bicarinatis, ultimo carinis acutis 4 vel 5 cincto; suturis linearibus; aperturà ovatà, intùs 5-lineatà; columellà incurvâ, foveatâ, purpureo tinctâ, in sinum tenuem productâ.

Shell ovate, rather thick, brown; whorls supposed to be about 5, rather convex; body whorl surrounded by about 5

Descriptions of New Fluvial Shells.

carinæ, of which two central ones are more prominent; sutures linear; aperture large, ovate, exhibiting the elevated ridges on the body whorl, as linear, brown bands seen through the substance of the shell; columella rounded, deeply indented, having a small purple spot below the middle, with a slight sinus at base.

Length 0.56 inch (14 millim.). Diam. 0.35 inch (9 millim.).

Length of aperture 0.28 inch (7 millim.).

Breadth of do. 0.18 inch ($4\frac{1}{2}$ millim.).

Habitat.—Alabama.

My cabinet.

Obs.—The only specimen I have is somewhat mutilated, but seems nevertheless perfectly distinct; the only known species with which I can compare it is *M. sulcosa* Lea, which is a much thinner and more elevated species. The aperture of the present shell is also proportionally much larger, and the number of whorls less, for, though injured in that part, the rapid diminution of the whorls does not indicate an elevated spire; the number of raised lines on the body whorl is also less, and they are rather very elevated *costæ* than *strice* as in Mr. Lea's species.

30. **Melania torulosa.**

Plate III. Fig. 10.

T. conicâ, subcrassâ, castaneâ; spirâ parùm elevatâ, acutâ; anfr. 7-8, suprâ suturam valdè carinatis; suturis linearibus; aperturâ latè ovatâ, intùs purpurascente; columellâ incurvâ, in sinum tenuem desinente.

Shell conic, chestnut colored, rather thick; spire little elevated, acute; whorls 7-8, strongly carinated a little above the suture; sutures linear; aperture not large, broad-ovate, purplish within; columella regularly but not remarkably curved, with a small sinus.

Descriptions of New Fluvial Shells.

Length 0.58 inch (15 millim.). Diam. 0.28 inch (7 millim.).
Length of aperture 0.23 inch (6 millim.).
Breadth of do. 0.15 inch (4 millim.).

Habitat.—Tennessee.

My cabinet.

Obs.—But a single specimen of this species is before me, but it differs so much from all others that I cannot hesitate to place it among well established species. *M. acuto-carinata* Lea is the only one with which it may be compared, but that species has the carina obsolete on the body whorl, the very point where it is most remarkably developed in this; the whorls also in the *M. torulosa* diminish much more rapidly to an acute apex, which in *M. acuto-carinata* is said to be *obtusely* elevated; the *M. torulosa* is remarkable for its acute elevation from the broad base of the carina on the body whorl. In the columella too of the present species there is no indentation, while in *M. acuto-carinata* it is “remarkably indented.”

31. *Melania planogyra.*

Plate III. Fig. 11.

T. elongato-conicâ, subglabrâ, crassâ, fusco-virente; spirâ valdè autem obtusè elevatâ; anfr. 10–11, subconcavis, costâ suprâ suturam decurrente marginatis, et fasciâ fuscâ juxtâ costam ornatis; anfr. ultimo fasciâ alterâ infrâ angulum decurrente; suturis impressis; aperturâ parvâ, rhomboideâ, intus bifasciatâ; labro valdè sinuoso; columellâ rectâ, in sinum latum productâ.

Shell conical, rather smooth, thick; of a dull, dark, horn-color, unrelieved by any other except a rather indistinct, brown band, revolving near the base of each whorl, immediately below which a raised, rounded, subcrenulated ridge revolves between it and the suture below; spire much, but not acutely,

Descriptions of New Fluviatile Shells.

elevated, with a nearly rectilinear outline; whorls 10-11, flat or concave, and with a well impressed, channelled suture; aperture small, rhomboidal, diaphanous, exhibiting the dark band of the exterior through its substance very faintly, far within. Columella deeply curved, not indented, thickened at base; outer lip angularly curved, extended forwards; sinus rather broad, not deep.

Length 1.37 inch (34 millim.). Diam. 0.46 inch (12 millim.).

Length of aperture 0.40 inch (10 millim.).

Breadth of do. 0.24 inch (6 millim.).

Habitat.—Alabama.

My cabinet.

Obs.—A stout species, which most resembles *M. regularis* Lea in general appearance, from which, however, its concave whorls, elevated carina, and dark band will readily distinguish it. It has not the channelled body whorl of *M. canaliculata* Say, nor the convex, subangulated upper whorls which distinguish that species.

The lines of growth are very coarse and prominent, and extending over the raised line near the base of the whorls, give the latter an interrupted or subcrenulated appearance.

32. *Melania gradata.*

Plate III. Fig. 12.

T. conicâ, glabrâ, crassâ, corneo-virente; spirâ parùm elevatâ; anfr 7-8, gradatis, subconcavis, funiculo conspicuo suturas incumbente et in angulum anfr. ultimi carinam elevante; suturis valdè impressis; aperturâ subrhomboideâ, intus albidâ; labro prorsum valdè sinuato, columellâ rectâ, in sinum angustum profundum productâ.

Shell conical, smooth, solid, greenish horn-color; spire not much elevated; whorls 7-8, slightly concave, with a distinct elevated ridge, closely overlying the suture and the projecting

Descriptions of New Fluvial Shells.

shoulder of the succeeding whorl so as to form a series of steps to the sub-acute apex; body whorl large, generally angulated or distinctly ribbed at base, which is not much rounded; sutures impressed; aperture subrhomboidal, whitish within; outer lip much bent forward towards the base; columella straight, produced into a narrow deep sinus, which is slightly recurved.

Length 0.85 inch (22 millim.). Diam. 0.42 inch (11 millim.).

Length of aperture 0.30 inch (8 millim.).

Breadth of do. 0.20 inch (5 millim.).

Habitat.—Alabama.

My cab. Cab. Lyc. Nat. Hist., N. Y. B. W. Budd, M.D.

Obs.—Belongs to the group of which *M. canaliculata* may be considered the type. It is, however, much less elevated than *M. canaliculata*, has not the conspicuous grooving on the body whorl as in that species, and its spire has the whorls flat instead of exhibiting an obtuse carina, as described by Mr. Say; a sharp elevated carina at the base of the whorls closely overlies the suture beneath; the extreme upper whorls having this more distant from the suture become distinctly carinated. The regular gradation of the whorls is its most distinctive character.

33. *Melania fastigiata.*

Plate III. Fig. 13.

T. conicâ, glabrâ, crassâ, virente; spirâ elevatâ, acutâ; anfr. 9-10, primùm subcarinatis, deindè planis, fusco-bifasciatis, ultimo trifasciato, in medio carinâ angulato; suturis impressis, aperturâ rhomboideâ, intus albidâ, fasciatâ; labro valdè sinuato, columellâ rectâ, in sinum profundum productâ.

Shell conical, smooth, moderately thick; of a pale yellowish-green color, ornamented with two distinct, distant, reddish-

Descriptions of New Fluviatile Shells.

brown bands on each whorl, except those near the apex, which are carinate; spire elevated, rising from the broad body whorl with regularly decreasing volume in a pyramidal form to the acute apex; whorls 10, not convex, with rather indistinct sutures in a furrowed channel; lines of growth curved and strong, particularly on the penult and body whorl, where they are almost folds; body whorl distinctly carinated, having one carina at the middle, another a short distance below, with a broad band immediately above the carinæ, and another far down, near the base. Aperture small, sub-rhomboidal, whitish within, three bands visible in the interior; columella nearly straight, a little thickened, outer lip very much curved, auger-like; sinus narrow, recurved.

Length 0.80 inch (20 millim.). Diam. 0.38 inch (10 millim.).

Length of aperture 0.32 inch (8 millim.).

Breadth of do. 0.16 inch (4 millim.).

Habitat.—Tennessee.

Obs.—A fine symmetrical species, which is, perhaps, most nearly allied to *M. vestita* Con.; from that shell it differs in being less ponderous, more acute in its outline, and in its flat whorls, the *M. vestita* being angulated below the middle; it has also a double band, while "*vestita*" has a single one. From *M. elevata* Say it differs by its less slender outline, its want of "thread-like carinæ" on the whorls, and its lines of growth are more curved, more elevated, and more distant; differs from *M. spinalis* Lea by not having carinated whorls, by its more delicate color, and it has not the superior part of the whorl darker than below, as described in *M. spinalis*.

34. *Melania vicina.*

Plate III. Fig. 14.

T. conicâ, glabrâ, subcrassâ, fulvâ; spirâ brevi; anfr. 6, superioribus subconvexis, unifasciatis, ultimo subhumeroso, in medio angulato, fasciis

Descriptions of New Fluvial Shells.

fuscis, duabus ornato; suturis impressis; aperturâ ovatâ, intus bifasciatâ; columellâ valdè incurvâ, sinum vix formante.

Shell conical, smooth, rather thick, yellowish-brown; spire short; whorls 6, upper ones subconvex, with a brown band immediately above the suture, body whorl a little shouldered beneath the suture, and angulated in the middle, surrounded by two narrow bands, one above and the other below the angle; sutures impressed; aperture ovate, banded within, columella much curved, with hardly a perceptible sinus at base.

Length 0.45 inch (11 millim.). Diam. 0.21 inch (5 millim.).

Length of aperture 0.20 inch (5 millim.).

Breadth of do. 0.12 inch (3 millim.).

Habitat.—Alabama.

My cabinet.

Obs.—A small, not inelegant species, which may be compared with *M. ovoidea* Lea and *M. depygis* Say, as its nearest congeners. The former species I have never seen, but judging from the description this differs from it in many particulars; its form is proportionately broader, the bands are more distinct, the body whorl has a distinct angle, which is also apparent on the penultimate whorl, amounting there to a carination. The aperture is also much smaller. The same particulars apply with equal force to *Melania depygis* Say, the two being so nearly alike in description that the *M. ovoidea* may prove to be only a variety of Mr. Say's *depygis*.

35. *Melania pallidula.*

Plate III. Fig. 15.

T. ovato-conicâ, glabrâ, subcrassâ, stramineâ; spirâ obtusè elevatâ, decollatâ; anfr. superstit. 4, superioribus subplanis, ultimo angulato, obscurè fusco-bilineato; suturis impressis; aperturâ ovatâ, intus albidâ, bilineatâ; columellâ incurvâ, sinum vix formante.

Descriptions of New Fluvial Shells.

Shell elongate-ovate, smooth, moderately thick; of a pale horn-color, with a faint, brown, narrow band on the penult whorl, increased to two on the body whorl, and obsolete on the apical ones; spire obtusely elevated, with a rather convex outline and a well defined suture; whorls, four remaining, with indications of two more lost by truncation, body whorl angulate, and rather coarsely striate longitudinally; aperture rather large, ovate, pale within, ornamented with the two bands of the body whorl, which do not reach the outer edge, a broad, plain area intervening; columella curved, with a very slight sinus at base.

Length 0.50 inch (12 millim.). Diam. 0.25 inch (6 millim.)

Length of aperture 0.27 inch (7 millim.).

Breadth of do. 0.15 inch (4 millim.).

Habitat.—Tennessee.

My cabinet.

Obs.—This is a very neat, pretty species, whose affinity with any other is not so strong as to endanger its being easily confounded; from *M. angulata nobis*, it differs in being broader, less angulated, paler in color, less elongated, and by its brown bands, that species being entirely plain.

36. *Melania rhombica.*

Plate III. Fig. 16.

Testâ ovato-conicâ, fusco-virentè; spirâ parùm elevatâ; anfr. 6, superiôribus planis, striis 3-4 cinctis, ultimo multistriato, in medio angulato, infrâ angulm striis obsoletioribus; suturis inconspicuis; aperturâ ovatâ, intus albidâ; columellâ incurvâ, sinum vix formante.

Shell conic, rather thin, brown; spire regularly pyramidal, not elevated; whorls about 6, flat, regularly and very dis-

Descriptions of New Fluviatile Shells.

tinctly striate; body whorl angulated about the middle, nearly smooth, except as modified by the lines of growth, which are quite distinct, the concentric striæ being nearly obsolete on the body whorl; sutures inconspicuous; aperture rather large, ovate, whitish within; columella very slightly rounded, with little or no sinus.

Length 0.43 inch (11 millim.). Diam. 0.22 inch ($5\frac{1}{2}$ millim.).

Length of aperture 0.20 inch (5 millim.).

Breadth of do. 0.12 inch (3 millim.).

Habitat.—Alabama.

My cabinet.

Obs.—This cannot well be confounded with any known species; its short spire, flat striated whorls, regularly and rapidly decreasing to the apex, the prominent, acute carina which encircles it near the top of the aperture, beneath which the striæ, so prominent above, are hardly discernible, and its rather broad form, will readily distinguish it from *M. striatula* Lea, to which it might seem allied by form and color; it has somewhat the form of *M. vicina nobis*, but that shell is more slender, less distinctly carinated, and has not the striation of the present species.

37. *Melania angulata.*

Plate III. Fig. 17.

T. conicâ, glabrâ, fulvâ; spirâ acutâ, modicè elevatâ, nigrescente; anfr. 8, superioribus subplanis, carinis duabus, in anfr. penultimo obsolescentibus, cinctis, anfr. ultimo in medio acutè angulato; suturis impressis; aperturâ elongato-ovatâ, intùs albido-rufescente; columellâ subincurvâ, in sinum tenuem productâ.

Shell acutely conic, smooth, brown, rather thick; spire not

Descriptions of New Fluviatile Shells.

remarkably elevated, but tapering regularly with a rectilinear outline to the apex, which is entire and acute; whorls 8, nearly flat, upper ones carinate, and with a well defined suture; body whorl with a distinct angle, more distinct where it revolves near the top of the aperture; below this the base is rather concave on the columella side; aperture moderate, narrow, ovate, whitish or faintly tinged with red within; columella slightly curved, not indented; sinus slight, but well defined.

Length 0.56 inch (14 millim.). Diam. 0.25 inch (6 millim.).

Length of aperture 0.25 inch (6 millim.).

Breadth of do. 0.13 inch (3 millim.).

Habitat.—Tennessee.

My cab. Cab. Lyc. Nat. Hist., N. Y.

Obs.—A singularly neat, precise looking shell. Its trim appearance, its pale color, unornamented by any band, and its sharp, well defined angle, amounting almost to a carina, will serve to distinguish it from all others.

38. *Melania tabulata.*

Plate III. Fig. 18.

T. ovato-conicâ, tenui, castaneo-nigrâ; spirâ parùm elevatâ; anfr. 5, superioribus, convexis, penultimo plano, supernè angulato, ultimo in planis pluribus tabulato; suturis impressis; aperturâ elongato-ovatâ, amplâ, intùs purpureâ; columellâ vix incurvâ, in sinum inconspicuum productâ.

Shell ovate-conic, smooth, thin, of a dark-brown color externally; spire not remarkably elevated, with a rather concave outline; whorls about 5, upper ones convex, penult whorl flat, body whorl sub-angulated into several planes, with a distinctly impressed suture; aperture rather large, ovate, within of a

Descriptions of New Fluvial Shells.

beautiful reddish-purple, columella slightly curved, indented, and with a narrow, recurved sinus at base.

Length 0.62 inch (16 millim.). Diam. 0.34 inch ($8\frac{1}{2}$ millim.).

Length of aperture 0.31 inch (8 millim.).

Breadth of do. 0.17 inch (4 millim.).

Habitat.—Tennessee.

My cabinet.

Obs.—I know of no species with which this is liable to be confounded; its ample body whorl, the broad, angular, and shelving shoulder on the body and penult whorls, while the upper ones are wanting in this character, and above all the tabulation of the penult whorl, are its most striking characteristics, and will at once distinguish it from all other species; the lines of growth are rather coarse, curved, and approximate.

39. *Melania clara.*

Plate III. Fig. 19.

T. ovato-conicâ, glabrâ, subcrassâ, stramineo-virente; spirâ parùm elevatâ; anfr. 7, superioribus planis, rapidè crescentibus, purpureo-uni-fasciatis, ultimo magno, subangulato, quadrifasciato; suturis valdè impressis; aperturâ magnâ, ovatâ, intùs fasciatâ; columellâ subrectâ, in sinum inconspicuum productâ.

Shell ovate, smooth, thick; spire not elevated; whorls 7, flat, nearly smooth; upper ones rapidly enlarging to the body whorl, which is very large, and ornamented with four conspicuous brown bands, on a clear and well contrasting yellow ground; the upper band is distant and alone, near the suture, while the others are crowded and below the middle; sutures impressed; aperture large, ovate, banded inside; columella nearly straight, with no remarkable sinus at base.

Descriptions of New Fluvial Shells.

Length 0.70 inch (18 millim.). Diam. 0.38 inch (10 millim.).
Length of aperture 0.40 inch (10 millim.).
Breadth of do. 0.20 inch (5 millim.).

Habitat.—Alabama.
My cabinet.

Obs.—Allied to *M. olivula* Con. in general form, but seems to differ by its body whorl, which is sub-angulated at its upper part, near the top of the aperture, and slightly so at the middle; the whorls of the spire have only one band, which is above the middle; lines of growth distinct, giving the upper whorls a slightly varicose character.

40. **Melania fusco-cincta.**

Plate III. Fig. 20.

T. ovata, glabra, subcrassa, stramineo-fusca; spira brevi; anfr. 4-5, superioribus nigro-unifasciatis, ultimo magno, angulato, fasciis nigris latis duabus una supra et altera subter angulum revolventibus; suturis valde impressis; apertura magna, late ovata, intus fasciata; columella incurva, reflexa, foveata, sinum vix formante.

Shell ovate, smooth, moderately thick; spire very short, consisting of 4-5 nearly flat whorls, with a broad, dark-brown band revolving in the centre of each; body whorl large, with one band above the middle, and another at base, subangulated; sutures irregularly impressed, distinct; columella well rounded, indented and reflected at the middle so as partially to conceal a small umbilical opening; aperture large, broad-ovate, within banded.

Length 0.44 inch (11 millim.). Diam. 0.30 inch (7½ millim.).
Length of aperture 0.25 inch (6 millim.).
Breadth of do. 0.17 inch (4 millim.).

Descriptions of New Fluvial Shells.

Habitat.—Alabama.

My cabinet.

Obs.—A short shell, almost like an *Anculosa*; a single specimen only is before me, but is too remarkable to be confounded with any known species.

The uncommonly broad, dark band, surrounded by the generally yellow epidermis, gives it a lively appearance.

41. *Melania plena*.

Plate III. Fig. 21.

T. oblongo-ovata, glabra, crassa, fusco-virescente; spirâ parum elevata, decollata; anfr. 4-5, convexis, ultimo magno, in medio subconstricto, fasciis duabus obscuris; suturis irregulariter valde impressis; aperturâ magnâ, subrhomboideâ, intus lividâ et fasciatâ; columellâ rectâ, tortâ, foveatâ, in sinum profundum angustum productâ.

Shell oblong ovate, smooth, thick, dark olive-green; spire abruptly decollate, not elevated; whorls 4-5, convex; body whorl large, a little constricted in the centre, having two very faint, distant bands, more distinct in the interior; sutures irregularly and distinctly impressed; aperture large, sub-rhomboidal, within livid and banded; columella strongly indented and twisted, with a strong sinus at base.

Length 0.80 inch (21 millim.). Diam. 0.45 inch (11 millim.).

Length of aperture 0.42 inch (11 millim.).

Breadth of do. 0.20 inch (5 millim.).

Habitat.—Alabama.

My cabinet.

Obs.—A strong, corpulent shell, of a dark, livid color, which cannot well be confounded with any other; its most prominent characters are, its full broad form, the paucity of its whorls, and its strongly indented columella.

42. *Melania compacta*.

Plate III. Fig. 22.

T. ovato-conicâ, glabrâ, crassâ, stramineo-virente; spirâ obtusè elevatâ; anfr. 5, superioribus subplanis, fasciis nigris duabus cinctis quarum inferior suturâ ferè occulta est, ultimo subangulato, trifasciato; suturis impressis; aperturâ ovatâ, intùs albidâ et fasciatâ, columellâ foveatâ, incurvâ, sæpe purpureo-tinctâ, sinum haud formante.

Shell ovate-conic, smooth, thick, yellowish-green; spire obtusely elevated; whorls about 5, nearly flat; body whorl large, subangulated near the base, with three very dark bands, two of which are below the angle; the penultimate whorl has two bands only, and the lowest of these is nearly or quite concealed by the suture, and on the upper whorl the same band is indicated only by a dark, hair-like line; sutures well impressed; aperture rather large, ovate, within whitish and banded; columella strongly indented, base regularly rounded, without any sinus.

Length 0.60 inch (15 millim.). Diam. 0.38 inch (10 millim.).

Length of aperture 0.30 inch ($7\frac{1}{2}$ millim.).

Breadth of do. 0.18 inch ($4\frac{1}{2}$ millim.).

Habitat.—Alabama.

My cab. Cab. Lyc. Nat. Hist., N. Y. B. W. Budd, M.D.

Obs.—A short, thick, compact species, with seldom more than three perfect whorls remaining, other two whorls being indicated on the abruptly decollate spire; the whorls are slightly shouldered, and the lines of growth are curved and prominent; compared with *M. fusiformis* Lea, it is less fusiform, more ponderous, has the spire less acute, and an aperture entirely different; from *M. proteus*, ~~it~~ it differs in its totally different spire and aperture, and its want of the tuberculous

Descriptions of New Fluviatile Shells.

shoulder of that species; the bands in the interior are very dark and well defined.

43. *Melania glans.*

Plate III. Fig. 23.

T. ventricoso-conicâ, glabrâ, crassâ, nigro-fuscâ; spirâ acuminatâ, parùm elevatâ; anfr. 8, convexis, rapidè crescentibus, ultimo magno, perconvexo; suturis distinctis, albo-lineatis; aperturâ elongatâ, intùs purpureâ; columellâ foveatâ, rectâ, in sinum angustum profundum productâ.

Shell ventricose-conic, smooth, thick, dark-olive; spire acuminate, but not elevated; whorls 8, convex, rapidly converging to the apex; body whorl very large, rounded beneath; sutures well defined, white; aperture not large, elliptical, within dark purple; columella indented near the base; sinus well developed.

Length 0.75 inch (19 millim.). Diam. 0.38 inch (10 millim.).

Length of aperture 0.34 inch (9 millim.).

Breadth of do. 0.16 inch (4 millim.).

Habitat.—Tennessee.

My cabinet.

Obs.—A plain, sombre-looking species, with no very remarkable distinguishing characters, except its large, bulbous form, and dark, purple mouth; it cannot well be compared with any other species. The whorls are slightly shouldered, with a very narrow, whitish sutural region.

44. *Melania planospira.*

Plate III. Fig. 24.

T. rotundo-ovatâ, glabrâ, subcrassâ, corneâ; spirâ brevissimâ; anfr.

Descriptions of New Fluvial Shells.

4-5, gradatis, vix elevatis, ultimo permagno, fusco-bilineato; aperturâ magnâ, elongato-ovatâ; columellâ incurvâ, in sinum tenuem productâ.

Shell short-ovate, smooth, rather thick, light horn-colored; body whorl large, occupying nearly the entire volume of the shell; spire nearly flat, consisting of 4-5 perfectly plane whorls, scarcely elevated above the body whorl; aperture long, narrow ovate; columella rounded, ending in a slight sinus.

Length 0.50 inch (13 millim.). Diam. 0.32 inch (8 millim.).

Length of aperture 0.36 inch (9 millim.).

Breadth of do. 0.18 inch (4½ millim.).

Habitat.—Tennessee.

My cabinet. Cab. Lyc. Nat. Hist., N. Y.

Obs.—Cannot be confounded with any other species; its remarkably flat whorls rising like steps, but little above each other, with a distinct and slightly raised rim around the periphery, will alone be sufficient to characterize the species. It seems more like an *Anculosa* in form, but is nevertheless a true *Melania*. Two bands are visible on the body whorl and also within the aperture.

45. **Melania undosa.**

Plate III. Fig. 25.

T. ovatâ, glabrâ, subcrassâ, stramineo-virente; spirâ brevi, conicâ; anfr. 6-7, convexis, rapidè crescentibus; ultimo amplo, valdè humeroso, interdum obscurè fasciato; suturis impressis; aperturâ irregulariter ovatâ, intus albido-rubescente, sæpe purpureo-fasciatâ; labro subsinuoso; columellâ incurvâ, in sinum latum productâ.

Shell ovate, smooth, olivaceous, moderately thick; whorls 6-7, rapidly converging to the apex, convex; body whorl ample, with a distinct, but somewhat rounded shoulder; sutures

Descriptions of New Fluvial Shells.

impressed; aperture irregularly ovate; outer lip waved; inside of the aperture whitish or brownish, often with obscure bands; columella rounded, extending into a broad, shallow sinus.

Length 0.66 inch (17 millim.). Diam. 0.38 (10 millim.).

Length of aperture 0.35 inch (9 millim.).

Breadth of do. 0.19 inch (5 millim.).

Habitat.—Nolen river, Kentucky.

My cab. Cab. Lyc. Nat. Hist., N. Y. Cab. B. W. Budd.

Obs.—A somewhat variable species; the remarkably shouldered body whorl will, however, readily distinguish it; differs from *M. obovata* Say by its more distinct spire, its greater proportionate breadth, and by the form of the aperture; it is also much less ponderous; many specimens are obscurely banded on the body whorl, this is more distinctly visible in the young shell.

46. *Melania consanguinea.*

Plate III, Fig. 26.

T. ovata, glabra, crassa, fusco-virente; spirâ brevi, acuminata; anfr. 8, superioribus subplanis, duobus ultimis humerosis, ultimo permagno, in medio vix constricto; suturis impressis; aperturâ magna, ovata, intus livida; columellâ incurvâ, purpureo-tinctâ, sinum vix formante.

Shell ovate, smooth, thick, brownish olive; spire short, acuminate; whorls 8, the upper ones nearly flat, the last two or three much shouldered; body whorl very large, slightly constricted in its upper portion, and very faintly banded; sutures deeply impressed; aperture regularly ovate, within livid, approaching to purple far within; columella rounded, with scarcely a perceptible sinus, tinged with purple at base.

Length 0.75 inch (20 millim.). Diam. 0.40 inch (10 millim.).

Length of aperture 0.40 inch (10 millim.).

Breadth of do. 0.20 inch (5 millim.).

Descriptions of New Fluviatile Shells.

Habitat.—Indiana.

My cab. Cab. Lyc. Nat. Hist., N. Y. B. W. Budd, M.D.

Obs.—Allied to, but perfectly distinct from *M. undosa*; its greater solidity, more elongated spire, and greater number of whorls will at once distinguish it; the whorls of the spire are much more convex, and there is no prominent angle formed by the shoulder on the body whorl as in *M. undosa*.

47. *Melania coronilla.*

Plate III. Fig. 27.

T. ovatâ, subcrassâ, fusco-corneâ; spirâ brevi; anfr. 5-6, convexis, propè humerum irregulariter nodoso-plicatis, sæpe fusco-unicinctis; suturis valdè impressis; aperturâ ovatâ, intùs rubescente et fasciatâ; columellâ incurvâ, foveatâ, in sinum tenuem productâ.

Shell ovate, moderately thick; of a dark, dull, horn color, sometimes decorated with two or three linear revolving bands at, and below, the upper part of the aperture; spire short, with a rather convex outline to the truncated apex; whorls 5-6, convex, one of which seems to have been lost by truncation; obtusely shouldered and shelving, with about ten short, thick, elevated, rather distant, longitudinal ribs on each, which on the body whorl are nearly obsolete, rarely extending below the shoulder; sutures distinctly impressed, but rendered irregular by the interruptions of the longitudinal folds; aperture not large, ovate, reddish or banded within; columella much curved, with an indentation below the middle, and thickened by a calcareous deposit along its whole length, more prominent near the upper angle of the aperture.

Length 0.50 inch (13 millim.). Diam. 0.22 inch ($5\frac{1}{2}$ millim.).

Length of aperture 0.24 inch (6 millim.).

Breadth of do. 0.13 inch (3 millim.).

Habitat.—Tennessee.

My cab. Cab. Lyc. Nat. Hist., N. Y. B. W. Budd, M.D.

Descriptions of New Fluvial Shells.

Obs.—I know no species with which the present one can easily be confounded; its short, rather broad outline, with its thick, prominent, longitudinal ribs on the short whorls of the spire will readily distinguish it. Six specimens only are before me, three of which are banded, and three are plain; the specimens are otherwise very uniform in appearance.

48. **Melania corpulenta.**

Plate III. Fig. 28.

T. ovata, glabra, fulvo-virente; spirâ brevi, convexo-conicâ; anfr. 6-7, convexis, ultimo subcylindrico, infernè subangulato, fasciis nigris latis duabus cinctis; suturis valdè impressis; aperturâ elongato-ovatâ, supernè angustâ, intùs fasciatâ; columellâ primùm rectâ, deinde in sinum profundum recurvatâ.

Shell ovate, smooth, yellowish, banded; whorls 6-7, convex; body whorl very full, with two distant dark-brown bands quite broad, which are nearly concealed on the upper whorls by the revolutions of the spire; sutures impressed; aperture narrow ovate, broadest at base, banded within; columella much curved below the middle, white, and thickened at base, with a broad and distinct sinus in that region.

Length 0.80 inch (20 millim.). Diam. 0.42 inch (10 millim.).

Length of aperture 0.40 inch (10 millim.).

Breadth of do. 0.17 inch (4 millim.).

Habitat.—Alabama.

My cabinet.

Obs.—Its most prominent character is the corpulence of the body whorl, and its regular oval form. May be compared with *M. biteniata* Con., but its body whorl is much more rounded or oval, it is less banded, and the bands are more distinct; the spire is more elevated and less abrupt.

49. *Melania neglecta.*

Plate III. Fig. 29.

T. conicâ, glabrâ, tenui, stramineâ; spirâ elevatâ; anfr. 10, superioribus subplanis sæpe unifasciatis, lirâ suprâ suturam decurrente, in anfr. penultimo obsolete; anfr. ultimo subangulato, obscure bisulcato, sæpè nigro-bifasciato; suturis impressis; aperturâ ovatâ, intus albido-rosacæa; labro sinuoso; columellâ subrectâ, tortâ, rosacæa, in sinum profundum recurvatâ.

Shell conical, rather thin, light yellow; whorls 10, upper ones nearly flat, with a slight ridge revolving just above the suture. This ridge disappears as it approaches the penult whorl, but two of them become visible on the last whorl, which is subangulate. Sometimes the last whorl is encircled by two dark brown bands, of which the uppermost is also visible throughout the upper whorls, covering the ridge above mentioned; sutures impressed; aperture ovate, of a delicate rosy hue within; outer lip waved; columella nearly straight, twisted, roseate, recurved into a deep sinus.

Length 0.90 inch (23 millim.). Diam. 0.38 inch (10 millim.).

Length of aperture 0.33 inch (8 millim.).

Breadth of do. 0.18 inch ($4\frac{1}{2}$ millim.).

Habitat.—Great Miami river, near Dayton, Ohio.

My cab. Cab. Lyc. Nat. Hist., N. Y. B. W. Budd, M.D.

Obs.—A fine large species, which seems to exhibit considerable variation, both in form and coloring. The banded varieties are among our most beautiful species, while we also find those which are of a plain, delicate horn color, or with bands but faintly indicated by an almost imperceptible difference of color in the interior of the mouth, which in those specimens is generally, and in the banded specimens occasionally, tinged with a delicate rosy hue.

50. **Melania gracilior.**

Plate I. Fig. 5.

Melania gracilis Anthony (not Lea), Haldeman's Monog. Fresh-Water Shells of North America, Cover of No. 4.

T. conicâ, glabrâ, fusco-nigrescente; spirâ elevatâ; anfr. 8, superioribus planis, ultimo infrâ suturam constricto, et fasciâ fulvo-virente cincto; suturis impressis, pallidioribus; aperturâ ovatâ, intus fasciatâ; labro sinuato; columellâ fuscâ, incurvâ, in sinum distinctum productâ.

Shell conical, smooth, and shining, color dark-brown, texture light; whorls about 8, upper ones nearly flat, the last is usually slightly constricted beneath the suture, and beneath this stricture, on the periphery of the last whorl, revolve one or two broad bands of yellowish-green; sutures impressed, and of paler color than the rest of the shell; aperture small, pyriform, and inwardly ornamented with alternate bands of a dark ruby color and translucent white, which render this part of the shell peculiarly lively and beautiful; outer lip sinuate; columella dark brown, arcuate, and produced into a distinct sinus.

Length 0.75 inch (19 millim.). Diam. 0.28 inch (7 millim.).

Length of aperture 0.25 inch (6 millim.).

Breadth of do. 0.17 inch (4 millim.).

Habitat.—Congress and Springfield Lakes, Stark county, Ohio.

My cab. Cab. Lyc. Nat. Hist., N. Y. B. W. Budd, M.D.

Obs.—This is a very distinct and beautiful species, remarkable for its long slender form, its polished surface, and for a profound stricture on the body whorl of many of the specimens, though this last character is not always present; when it is present, it furnishes a mark by which this species can be readily distinguished from any other.

Descriptions of New Fluvialile Shells.

It is seldom that any of our *Melanicæ* are found inhabiting waters so still as those of the small lakes so numerous in Stark and the neighboring counties in Ohio; nearly all the family are denizens of rapid streams abounding with rocks, to which they adhere, often in great numbers. Occasionally, however, they attach themselves to the dead bivalve shells which pave many of the rivers in our Southern and Western States, or cling to the long grass which grows in them.

This species was first published on the cover of Haldeman's Monograph of the Fresh-Water Shells of North America, No. 4, December 28, 1841. A short time previous Mr. Lea had published a species from Tennessee under the same name, which publication I had not then seen. It becomes expedient, therefore, to change its name to one not preoccupied, and I propose, in re-describing the species, to confer upon it that of "*gracilior*," which seems even *more* appropriate than the name originally given to it.

The plates are delayed, but will be furnished hereafter.

