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SAN'S Description of New Shells &c.

constitutes what we term inflammation. We have several times seen considerable inflammation after a lapse of weeks, arise from a rupture of the blood vessels of parts which had sustained no direct injury. We are also informed by Mr. W. that ecchymosis, in whatever part of his body it has shown itself, has usually been attended with more or less pain and soreness.

3. A singular fact, noticed in the foregoing history, and for which, we do not pretend to account, is that the females of the family, are all healthy; while the males invariably inherit the family complaint; the predisposition descending, with equal certainty, through both, to posterity. Here, as in gout, nature displays a mysterious operation of her laws, as it were, but to mock our efforts towards investigation. We can only say, that such facts clearly imply a marked, and radical discrepancy in the original constitutional organization of the sexes.

ART. VI.—Descriptions of several new species of Shells, and of a new species of Lumbricus. By THOMAS SAY, F. M. L. S. of New Harmony, Indiana.

1. UNIO *interruptus*, elevated umbonial slope, separating folds of the disk from folds of the anterior margin. Inhabits Louisiana.

Shell transversely oblong-oval or sub-rhomboidal, blackish brown; an elevated rib extends from the apex to the anterior basal angle along the umbonial slope; anterior half of the disk with somewhat oblique undulations extending nearly to the umbonial rib; anterior to the umbonial rib are several arquated undulations, which do not reach the edge of the shell and are slightly cut by an impressed line which is nearly parallel to the rib: umbo compressed: beaks not elevated, deeply eroded: posterior margin very short, rounded: ligament margin

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rectilinear, the anterior angle elevated, obtuse: anterior slope very oblique: base rectilinear, parallel to the ligament margin: anterior basal angle somewhat rostrated: cavity of the hinge membranes (or excavated lunule) fusiform: within purplish, iridescent: cardinal teeth direct, deeply granulated and lineated over their whole surface: lateral teeth entire: posterior cicatrices rough, the smaller one orbicular: anterior edge blackish.

Length 2 1-5 inches, greatest breadth 3 3-5, convexity 1 3-10 inches.

The species to which this makes the nearest approach, is undoubtedly the *undulatus*, Barnes; but it is more transverse, more oblique anteriorly; the edges of the hinge margin of the anterior slope are not undulated; the umbonial slope is elevated into a distinct separating rib; and it is of a fine livid purple colour within. The eroded surface of the umbones is pearlaceous, iridescent and at the apices it exhibits a dull wax yellow surface. For this interesting species I am indebted to Mr. Joseph Barabino of New-Orleans.

2. UNIO glebulus, oval orbicular; lateral teeth remote, very short, granulated. Inhabits Louisiana.

Shell transversely oval orbicular, sometimes subovate, very convex, dark brownish: umbones not elevated above the general curvature: beaks not prominent, (much eroded, exposing a wax yellow surface:) hinge and basal margins correspondingly arquated; destitute of any prominent angle: anterior and posterior margins almost equally arquated; the former extending a little with age into a more or less obtuse angle at the extremity of the umbonial slope: umbonial slope slightly elevated: lunule not dilated: within a little tinted with rosaceous: cardinal teeth deeply and approximately granulated and sulcated: lateral teeth remote from the cardinal teeth, remarkably granulated, their length hardly greater than their distance from the cardinal teeth: posterior accessory cicatrix small and approximate.

Length 1 3-5 inches; breadth 2 1-10; convexity 1 3-10 inches.

The transverse simple rotundity of this shell, combined with the much sulcated cardinal teeth, and the remote short

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lateral teeth readily distinguish this shell. Several specimens were sent to me by Mr. Barabino.

3. UNIO nexus. Shell transversely triangular subrhomboidal, much inflated, thick: beaks prominent: anterior side much depressed, in its middle elevated, so as to make an almost rectilinear hinge margin, with a broad, shallow groove, which extends from the beak to the anterior margin: anterior margin forming nearly a right angle with the base, obtusely emarginate in the middle by the termination of the groove: umbonial slope carinated, in consequence of the depression of the anterior side: lunule very short: posterior margin very short, rounded: colour light brownish, obsoletely radiated: within white: cardinal teeth direct: lateral teeth rectilinear, short, with but little obliquity: posterior accessory cicatrix obliquely elongated, slender.

Length 1 7-10 inches; breadth 2 3-10; convexity 1 7-10.

Closely related to *triangularis*, Barnes; but differs in the greater prominence of the superior portion of the anterior margin; the shorter posterior margin and lunule; the direct cardinal teeth, and the little obliquity of the lateral ones. It was sent to me from Nashville by Dr. Troost. I may remark that several shells of Cumberland river vary much from those of other tributaries of the Ohio.

4. UNIO declivis, anterior margin rectilinearly and obliquely truncate. Inhabits Louisiana.

Shell transversely moderately thick: posterior margin short and obtusely rounded: beaks hardly elevated: hinge margin rather elevated and compressed, angulated at tip: anterior margin rectilinear, descending obliquely forward to a prominent rostrum of the anterior basal margin at the extremity of the umbonial slope: umbonial slope not elevated above the curvature of the disk, but is bounded on its anterior side by two slightly impressed lines: basal margin arquated: surface deeply wrinkled: within tinged with purplish: cardinal teeth oblique: lateral teeth distant from the cardinal teeth, rectilinear, oblique with respect to the base.

Length 1 3-5; breadth; 2 9-10; convexity nearly 1 inch.

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Several specimens were sent to me by Mr. Barabino. It resembles *purpureus*, Nob., but in that species the cardinal teeth are direct, and a remarkable feature is exhibited by this shell in its anterior rectilinear declivity, terminating below the anterior middle in a kind of rostrum or prominent angle, which may be compared to that of *nasutus*, Nob., excepting that it is nearly on a line with the base. I have not seen any variety of either of those species that could be mistaken for this. The beaks and umbones in my specimens are very much eroded, exposing a wax-coloured surface.

5. UNIO capillus, very small, thick, radiated; teeth very thick. Inhabits Wabash river.

Shell transversely suboval, thick, obscure, yellowish, with very numerous dark green radiating lines: posterior margin not very short, rounded: beaks but little elevated, simple: lunule fusiform, very obvious: hinge margin and anterior margin are little depressed, declining gradually in an arquated line: anterior basal margin rounded: basal margin nearly rectilinear in the middle: within pearly white: cardinal teeth direct, thick: lateral teeth thick, oblique with respect to the base: cicatrices very deep and rounded: cavity of the beaks almost obliterated, with a series of small cicatrices extending downwards and backwards.

Length 7-10; breadth 1 1-5; convexity half an inch.

The robust tooth and the thickness of the whole shell have induced many, and myself amongst the number, to consider this shell as the young of *gibbosus*, Barnes; but a very slight examination serves to shew that it is very distinct. The young of that species is always much more elongated transversely, not so thick, with the beaks much undulated, and the series of small cicatrices in the beak cavity is parallel to the hinge margin. As respects magnitude it approaches *parvus*, Barnes, which, however, has the beaks undulated, is rather thin, with oblique small cardinal teeth.

HELICINA occulta, carinated; carina almost concealed on the spine and nearly obsolete on the body whorl. Found near New Harmony, Indiana.

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Whorls about five, carinated or with an acute shoulder, which is almost concealed on the spine by the suture; it becomes more obtuse and almost obsolete or even impressed on the body whorl, but near the labrum it is again very obvious: the whole surface has slightly elevated somewhat regular lines, forming grooves between them across the whorls, and there is an appearance of revolving lines on the body whorl, particularly beneath: *labrum* entire, thick, a little reflected, obtusely a little more prominent towards the base, but not angulated. Greatest breadth less than three tenths of an inch.

All the specimens that I have yet observed are dead and bleached. They occur abundantly in a rugged and abrupt "bluff" a half mile below New Harmony, near the river bank, with many species of Helix, common in many parts of the United States, such as *alternata*, *thyroidus*, *fraterna*, *concava*, Nob. &c. They are much the same size or even a little larger than Helicina (Oligyra) orbiculata, Nob. which species is destitute of carina and of prominent wrinkles or elevated lines; its labrum is reflected but not thickened, with a distinct angle near its base.

LUMBRICUS terrenus, cylindrical, red; segments subequal; sides and venter with four double longitudinal series of short, small, curved bristles, or hooks; back unarmed; clitellus prominent and obvious; posterior extremity not depressed, attenuated like the anterior extremity.

This is our common earth-worm, which has been hitherto considered as the same with the *terrestris* L. of Europe, which however, has the posterior extremity depressed. It differs from L. *leptozonius*, Hagenbach, of Sweden, by having a clitellus. The L. (Hypogeon) hertina, Savigny, of North America is described to have a medio-dorsal series of hooks or bristles. The species belongs to Savigny's genus Enterion.

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