THE

MALACOLOGICAL

AND

CONCHOLOGICAL

Magazine.

CONDUCTED BY

G. B. SOWERBY, F. L. S.,

&c. &c.

PART I.

London:

PRINTED BY E. J. STIRLING, ADDLE STREET, WOOD STREET, CHEAPSIDE.

FOR

G. B. Sowerby, Great Russell Street, Bloomsbury.

1838.

ZOOLOGICAL JOURNAL.

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George Odell, Printer, 18, Princes-street, Oxford-street

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TO BE CONTINUED MONTHLY.

Conducted by G. B. SOWERBY, F L. S., &c.

THIS work is intended as the Conductors gratuitous contribution for the advancement of one of his favourite branches of Natural Science. The particular object which he proposes to himself in commencing it is the establishment of a Malacological and Conchological Society in London; it will be carried on at the sole expense of the Conductor for a twelvemonth, by which time it is to be hoped such a Society will be established; when it will be naturally replaced by their transactions. The Conductor will admit useful original articles relative to Malacological and Conchological Science in all their branches, and he invites articles relating to those Sciences in their connection with Geology.

The Conductor of this Magazine has for some years

been convinced that TWO new Societies ought to be established for the furtherance of the interests of Geological Science, namely, a MINERALOGICAL and a MALACOLOGICAL and CONCHOLOGICAL. He would willingly render any aid in his power to the establishment of the former or Mineralogical Society, but he feels that the formation of such a Society would require much greater influence than he is possessed of, seeing that the study of Minerals is scarcely attended to at the present time.

He will attempt the formation of the latter or Malacological and Conchological Society, and with this view he proposes as follows:—

1. That a Society be formed, to be called *The Malacological and Conchological Society of London.*

2. That the objects of this Society be—

   1. The formation of a Library to consist of all works connected with the Malacological and Conchological Sciences in all their bearings;

   2. The formation of Collections of specimens, drawings and descriptions of Mollusca and of Collections of Shells, both recent and fossil, with a view to an improved classification and nomenclature, and to the comparison and identification of recent and fossil species.

   3. The publication from time to time of such new and important facts as may come under the notice of the Society, and also the publication

of descriptive Catalogues of species made as complete as possible with correct synonyms.

3. The Society shall consist in the first instance of those persons who shall forward to the Conductor of this Magazine a letter expressing their intention to aid in its formation. As soon as twenty-five persons shall have expressed such intention a meeting shall be held, at which every such person shall be invited to assist; and all further proceedings shall be under the immediate control of a majority of such persons as shall thus meet together after a week's notice.
4. The Conductor of this Magazine engages to keep a list of such persons as may express their intention of assisting in the formation of this Society. He will also pay all expences which may be incurred, and keep a regular account of receipts and expenditures until the formation of the Society by the act of so many of the first twenty-five persons as may meet together for that purpose. When the Society is actually formed, it will of course repay such reasonable sums as may have been expended.

The Conductor of this Magazine ventures to invite Noblemen and Gentlemen who are interested in the advancement of the particular branches of science which he proposes as the objects of pursuit by this Society, to come forward and unite in its foundation: particularly as the collections it is proposed to form

may under proper regulations be rendered permanently useful in aid of Geological studies by offering the means of obtaining a corrected nomenclature, an improved Classification, and, which is of great importance to Geologists, the comparative examination and *exact* indentification both of recent and fossil species.

In furthèrance of these useful objects the Conductor of this Magazine now puts aside a small cabinet, and proposes to arrange in it, from time to time, such illustrative objects as he may occasionally meet with, merely as a nucleus, around which it is to be hoped, a most valuable and useful Collection may in time be formed; a Collection which will enable any persons having access to it, to name at once and with precision any malacological or conchological subject, recent or fossil they may possess, and in order to render it more extensively useful the Conductor of this Magazine would propose that it should be opened in the most liberal manner to those persons who may wish to consult it.

Ladies and Gentlemen who may be disposed to aid the object of the proposed Society are respectfully informed that they may immediately begin to do so by forwarding specimens or duplicates from their Collections of recent or fossil shells, or mollusca preserved in spirits—and it is requested that the localities as correctly as possible may be given. A Catalogue of all such donations, together with the name of the donor and the localities will be carefully prepared and kept.

The Conductor of the Malacological and Conchological Magazine, begs to be permitted in conclusion to state, that in making this proposal for the establishment of a new Society he has no personal interest to serve and that he is only actuated by the desire, as much as in him lies, of furthering the interests of Science; he feels that he is too obscure, and altogether too uninfluential an individual to aspire to the character of Founder of a Society—he will however use his best endeavours to excite others who from their position in Society, their talents and their zeal in the cause of Science are far better fitted to sustain such a character than he is. But should such a Society as he proposes not eventually be formed, having done his duty, his conscience will not allow him to apply the "*pudet hæc opprobria*" to himself.

Societies or private individuals who wish to have this Magazine, which, it must be remembered, *is only printed for private gratuitous distribution*, will have the goodness *to send their names and exact addresses, at their own expense* to Mr. G. B. Sowerby, No. 50, Great Russell Street, Bloomsbury.

Communications intended for publication in this Magazine must be sent free of expense to the Conductor.

Art I. On Melania inquinata, *Defr.*, and its supposed recent analogue.

Vide *Deshayes* Coquilles Fossiles des Environs de Paris, T. II. pl. 12 f. 7, 8, 13, 14, 15, 16, p. 105, (1825.) Id. Mag. de Conchyl. pl. et p. 13, (June, 1830.)

Cerithium Melanoides, *Sowerby* Min. Conch. of Great Britain, Vol. II. p. 109, pl. 147, f. 6, 7.

DeFrance Dict. des Sciences naturelles, Tom. XXIX, p. 469.

When, some months since, I addressed to the Editor of the Natural History Magazine some observations on Mr. Samuel Stutchbury's proposed new genus *Cyprædassis*, I ventured not to advance any opinion upon the subject; my intention was, by bringing forward such facts as I had myself observed, independently of the favourable or unfavourable bearing they might have upon the establishment of the proposed genus, to enable others, as far as my facts, combined with Mr. Stutchbury's, would go, to form a correct judgment upon the subject. I know not what expressions I may in those observations have made use of that may fairly be construed into expression of personal feeling, or an improper spirit, with both of which I have been charged. I have merely stated facts, the proofs of which are existing and to be seen every day; that these facts have a direct tendency unfavourable to the establishment of Mr. Stutchbury's proposed genus is not to be charged as a fault against me. I have not pretended to assert that the proposed genus may not eventually be fully established upon well marked characters, but I must still say, that it cannot be considered as established upon the *three* characters which Mr. Stutchbury has propounded as distinguishing it from Cassis; these three characters it will be remembered are, 1st. the absence of epidermis, and I have shown that Mr. Stutchbury's *typical* species has an epidermis; 2d. the absence of operculum, and I have shown that at least one of the species associated by Mr. Stutchbury with Cyprædassis has an operculum;* and 3d. the absence of varices except in the adult state,

* There is no greater reason for supposing Mr. Cuming to have *accidentally* applied the operculum of some other animal to C. coarctata, than there might be for supposing the operculum of C. Testiculus to have been *accidentally* detached from the foot of the animal before it was put into the spirit, or

and I have shown that three of Mr. Stutchbury's species form either internal or external varices at various periods of growth. And though I thus say, I do not intend to assert that these facts are to be taken as conclusive against the establishment of the proposed genus, but only as strongly unfavourable to it.

I have thought it necessary to make these preliminary remarks, because the treatment I have experienced in consequence of my observations upon this subject, is such as would have prevented me from continuing to bring forward the numerous facts with which I am acquainted, had I not been convinced of the necessity of fearlessly giving them publicity even at the risk of exposing myself to such misrepresentation: for these facts cannot always coincide with the opinions or preconceived notions of certain classes of writers, the profound ignorance of some of whom is only equalled by their arrogance.*

I shall therefore now proceed to the subject of the present communication; only premising that my aim and intention is alone the advancement of the purity and exactitude of such Natural Sciences as may be in a greater or less degree affected by my facts. The form in which I shall put my observations will be that of a *critical analysis* of the various published observations and assertions relating to the Melania inquinata of *DeFrance*, and I shall add such facts as I have had the opportunity of observing whether corroborative or not of previously published opinions. In order to avoid frequent references I have placed at the head of this article the direction to all that has appeared upon this subject, down to this present time, as far as I know of. It will be needful in the first place to ascertain what are the *precise* characters of Melania inquinata according to *DeFrance;* then I must enquire how far the *fossil* shells given under that name by *Deshayes* agree with the true Melania inquinata of *DeFrance;* next I must institute a careful comparison of this fossil

that it might not actually have been detatched by the sudden contractions of the animal upon being plunged into the *strong* spirit in which it was preserved.

* I do not intend to include among these writers either of the Messrs. Stutchbury.

species with the recent one which *Deshayes* asserts to be identical with it, and lastly I shall bring forward such facts as I possess and as are calculated to explain or to enable Naturalists to form a correct judgment upon the subject.

I commence then with my endeavour to ascertain what are the precise characters of the true Melania inquinata of *DeFrance*, and in order that I may not lay myself open to a charge of misrepresenting *DeFrance*, I copy *verbatim*, what he has said about it in the Dictionnaire des Sciences naturelles, " *Melanie souillée : Melania inquinata*, DeF. ; *Cerithium melanoides*, Sow., pl. 147, f. 6, 7. Coquille conique, turriculée, chargée de tubercules et de cordons transverses, comme certains èspèces de Cerites ; le dernier tour est chargé de cinq à sept cordons et d'une rangée de tubercules à sa partie supérieure ; sur les autres tours on ne voit qu'une ou deux cordons et les tubercules, qui ont cela de très singulièr, que souvent ils sont brisés et qu'à leur place on voit une petite cavité ; longueur deux pouces. On trouve cette éspéce à Woolwich, à Charlton et à Southfleet en Angleterre, à Beaurein departement de la Somme, ou elle est accompagnée de Paludines, et à Epernay avec des Cyrènes. Celles de Woolwich et de Beaurein ont jusqu'à douze tubercules sur chaque tour, et quelques individus de ce dernier lieu en sont presque dépourvus. Celles d'Epernay en ont environs huit très marquées. Je n'ai jamais pu rencontrer une seule de ces coquilles ayant l'ouverture en assez bon etât pour en saisir tous les caractères ; mais Je pense qu'elles dependent du genre Melanie.

Celles qu'on rencontrent à Epernai et à Beaurein se trouve dans des couches qui touchent à la partie superieure de l'argile plastique et du lignite, audessous du calcaire coquillier et il y a lieu de croire que celles des autres localités se trouve dans les memes circonstances." Thus far Defrance : but, it will be seen, that as far as the general description thus given goes, it will apply with equal correctness to several things which may nevertheless be perfectly distinct from each other ; he refers, however, to the shell figured in Mineral Conchology under the name Cerithium melanioides, as a representation of his Melania inquinata ; the fact of its being a true Melania is therefore indubitable,

and the author of Mineral Conchology has incorrectly placed it among the Cerithia, and he has been unfortunate in selecting a specimen for representation, which on account of the state of the anterior part of the columella, has the appearance of justifying this view of it. This is, therefore, the shell that is most perfectly identified by Defrance as his Melania inquinata, though it is also extremely probable that he has not distinguished from it other shells which are found in France. In relation, however, to the above-mentioned circumstance, which Defrance considers very singular, namely, that the tubercles are often broken and replaced by small cavities, I must not omit to state, that it can only be regarded as a proof that the shells were inhabitants of the fresh or brackish waters of rivers, lakes, or estuaries; that the tubercles are not actually broken, but eroded in the same manner as the points and other prominent parts of Melaniæ, Neritinæ, and other fresh water and estuary shells commonly are, such erosion being continued, until in place of tubercles a small cavity has been formed. These little cavities then that replace the tubercles are not to be regarded as a character of the species; and the first result of the examination, as far as I have hitherto gone, is that *the shell named by Sowerby in Mineral Conchology Cerithium melanioides is the Melania inquinata of Defrance.* I find, that in the Index to Mineral Conchology it is referred to under the name "Potamides politus (melanioides)" by which I understand J. D. C. Sowerby to express his opinion, that this is one of those shells that may with propriety be separated from the Cerithia under Brongniart's generic term "Potamides" (in French), or "Potamis" (in Latin): the opinion thus expressed is, however, not compatible with fact, for the shell is a true *Melania.*

I must next enquire how far the fossil shells given by Deshayes under that name, agree with the true Melania inquinata of Defrance. And to put my readers in possession of the whole subject with the least possible trouble to them, I shall copy, word for word, what Deshayes has said upon it, in his Description des Coquilles fossiles des environs de Paris.

" MELANIE SOUILLÉE. *Melania inquinata, Def.*"

M. testâ elongato-turritâ, basi striatâ : anfractibus subconvexis, in medio angulatis ; tuberculis depressis serratis, vel striâ proeminentiore ; aperturâ ovatâ, basi dilatatâ.

Def. Dict. des Sc. nat. tom. 29, p. 469.

Cerithium melanioides, Sow., Mineral Conchol. pl. 147, f. 6, 7.

Var. *a*. *Testâ anfractibus bistriatis ; tuberculis numerosioribus.*

Var. *b*. *Testâ tuberculis bifariam separatis.*

Var. *c*. *Testâ majore anfractibus tristriatis ; striâ inferiore aliquantisper subtuberculatâ.*

Localités : Epernay. A. P. les environs de Soissons pour la var. *c*.

M. Ferussac possède l'analogue vivant de cette espèce, et surtout de notre variété *c*. Elle vient, à ce qu'il nous semble, de la partie meridionale de l'Asie. On trouve en Angleterre, à Headen hill, l'analogue fossile, que Mr. Sowerby, à cause du mauvais état des individus qu'il a eus à sa disposition, avoit rangé dans le genre Cerite. Cette espéce est assez grande, turriculée, attenuée au sommet ou un peu tronquée ; elle offre dix à onze tours de spire légèrement convexes, et separés par une suture superficielle. Chaque tour de spire presente, un peu audessous du milieu, une rangée de tubercules saillans un peu aplatis et assez aigues; le reste est lisse dans le plus grand nombre des individus. A la base, on remarque cinq ou six stries saillantes ; l'ouverture est ovale-oblongue, la lévre droite entière et simple. La var. *a*. fig. 13, 14, se reconnoit à des tubercules plus nombreux et plus serrés, aplatis plutôt longitudinalement, que transversalement : audessus il y a deux stries saillantes et distantes. La var. *b*. est singulière par les tubercules qui se trouvent divisés transversalement dans leur milieu par une strie profonde. La var. *c*. n'est pas moins remarquable que la précédente ; les tubercules sont presque effacés; à leur place, il y a une strie saillante qui offre des tubercules très petits, á peine saillans ; audessus de cette strie il y a ordinairement trois autres simples. Cette variété, qui parait dependre de la localité ou on la trouve, est plus grand que les autres, et est généralement plus large à la base. Longueur quarante-cinq millimètres : longueur de la variété *c*, cinquante millimètres."

Now, that this may be correctly understood, I must state, that in the above description Deshayes speaks of *the apex* of the shell as *the summit*, and of the *anterior*, wider part as the base, though he places his figure exactly in the reverse position, putting the *anterior* wider part upwards, and the *apex* downwards; and, moreover, that the expressions "*audessous*" and "*audessus*" in the above description are to be taken in reference to the position in which the figures are placed in his plate, and not with reference to what he has called *summit* and *base* in his description.

Taking the above description alone, and without further reference to the figures than is necessary to understand it correctly, there is nothing in it to lead any one to suppose that Deshayes is describing a different thing from Defrance, and the conclusion must be drawn, that his Melania inquinata is identical with Defrance's and Sowerby's: but any one would be led greatly to doubt the identity of the species who placed any dependence upon the figures in Deshayes, which are very little like the shell represented in Mineral Conchology, and not much more like five authentic specimens at present in my possession, which represent two of the varieties from different localities in France; indeed, these figures of Deshayes are such, that I think it would scarcely be possible to identify the fossil by them alone, and without the aid of other figures and descriptions. The second result of this examination is, nevertheless, that Deshayes' fossil *Melania inquinata* is identical with Defrance's, and that they are represented in this country by the shell named *Cerithium melanioides* in Mineral Conchology; afterwards altered in the Index to the same work, to *Potamides politus* (*melanioides*) but which, consequently ought to bear the name of *Melania inquinata* of Defrance.

I must now institute a comparison of this fossil species with the recent one, which Deshayes asserts to be identical with it. For this purpose I refer to the Mag. de Conchyliologie, page and plate 13, and I transcribe word for word his statement relative to it.

"M. SOUILLEE. *M. inquinata*, Defrance. Deshayes.
Testâ transverse multistriatâ, apice costatâ; costis longitudinalibus; striâ unicâ superiore nodulosâ.

Long. 40 mill.; larg. 16 mill.

Nous avous annoncé dans notre ouvrage sur les fossiles des environs de Paris (tome II. page 105) que la Melanie souillée, si abondamment répandue à l'état fossile dans le bassin de Paris et en Angleterre, se trouvait aussi vivante; nous avions cité ce fait de mémoire, ayant vu la coquille vivante, quelques années auparavant dans la collection de M. De Ferussac; aujourd'hui que nous possedons aussi cette espéce à l'état recent, nous en donnons une figure que l'on pourra facilement comparer avec celles qui sont dans notre ouvrage; on s'assurera par ce moyen de l'identité des individus vivants et fossiles, et l'on s'apercevra que l'individu figuré ici est une variété à ajouter à celles qui sont connues. Il a quelques stries de plus vers la suture, et n'a sur chaque tour qu'une seule strie transverse qui soit tuberculeuse. Nous renvoyons pour le reste de la description, soit à notre ouvrage, dans l'endroit precité, soit à l'article Melanie du Dictionnaire des Sciences Naturelles, par M. Defrance. Patrie : les Phillippines.

Juin, 1830. DESHAYES.

Let me now, before instituting a comparative examination of the fossil and recent shells, first compare the figures and descriptions of Deshayes, in compliance with his invitation. It will be seen upon making this comparison that there are several points in which the recent differs from the fossil shells; the first of these is the form of the volutions, which in the figure of the recent shell are represented as being wider in proportion to their length, and more convex than in the figures of the fossil; the next is the suture, which is represented as much more deeply placed in the recent than in the fossil, in which latter Deshayes says it is *superficielle*"; then the form of the aperture is represented in the fossil as smaller and rounder than in the recent; the appearance of a thickened margin is also given to the figures of the fossil, while in the recent figure the margin is made to appear thin and sharp-edged: next, in the description the recent shell is said to have longitudinal ribs at the apex *(apice costatâ; costis longitudinalibus)* and in the figure these longitudinal ribs are made to extend more or less distinctly nearly over the whole shell, but these ribs are neither mentioned in the description nor do they at all appear in any of the figures of the fossil varieties; then

in the fossil, there are no striæ either represented in the figures of the varieties, or mentioned in the descriptions above or nearer the apex than the row of tubercles, whereas in the figure of the recent shell several striæ are represented in that position, and in the description he expressly mentions them; (" *Il a quelques stries de plus vers la suture*"). It is therefore evident that Deshayes' recent is really *different* in several respects from his fossil shell, whether it is merely another variety (which he asserts it to be) or a distinct species is a question upon the consideration of which I shall presently enter. But I must first observe, in relation to his description of the recent shell, that he commences with a new character of the species, evidently for the alone purpose of bringing in this shell; which he moreover asserts to be " *une variété à ajouter à celles qui sont connues.*" In effect Deshayes proves by his own descriptions and figures that his recent is different from his fossil species and he is at variance with himself, for notwithstanding he has given us a figure which any one may easily compare with the figures of the fossil which he has given in his other work, I would ask, how is it possible that any one who may take this trouble will be assured of the *identity* of the recent and fossil individuals since he tells us that the recent one is a *variety—if it be a variety it is not identical.* This is too much in accordance with Lamarck's absurd *dictum,* conveyed in the following words which are to be found in the 245th. page of the 7th. volume of his Histoire naturelle des Animaux sans vertèbres, " *à l'égard des produits de la Nature, tous sont variétés les uns des autres, ce que constate partout l'observation des avoisinans*"; I have neither time nor talent for entering upon so large a field of enquiry, I would only ask one question; If this be true; if the Lion, the Eagle, the Crocodile, the Snake, the Flying Fish, the Beetle, the Polyp, the Molluscum, &c. &c. be merely varieties one of another, why do Naturalists labour upon systems and endeavour to ascertain the natural affinities, and to found upon them classes and orders and families and genera and species? Here is the *ready* answer to all their researches " THEY ARE ALL VARIETIES, ONE OF ANOTHER."

But I think I shall be able to show by a comparative examination of the recent and fossil *shells themselves* that they ought to be regarded as

distinct species. Of the recent one I have before me five specimens which represent three varieties; and in all these the volutions are wider in proportion to their length, than the corresponding varieties of the fossil; their apertures are consequently larger and wider in proportion; their volutions are more rounded, their sutures more distinct; in all of them there exist more or less distinctly marked longitudinal ribs (which are not to be seen at all in the fossil;) and in all of them there are also longitudinal striæ between the tubercular ridge and the suture; so that here are no less than five characters in which the recent appears constantly to differ from the fossil shell. Besides the above characters I may also mention that the aperture of the recent is very different from that of the fossil which may be easily proved by a comparative examination of the lines of growth.

I am disposed to think, taking the above characters in which the recent are found thus constantly to differ from the fossil shells, in combination with the fact of the existence of nearly parallel varieties in both, that the recent ought to be regarded as a distinct species from the fossil and in this view of the subject I propose the following as the diagnostics of the two species.

1. Melania inquinata, *Defr.*

Testâ elongato-turritâ lævi, anfractibus decem, gradatim crescentibus, subconvexis, posticè propè suturam angulatis, ad angulum tuberculatis, tuberculis depressis; anticè plerumquè lineis transversis nonnullis plùs minùsve elevatis, nonnunquam interruptis; inter angulum et suturam planis; suturâ subinconspicuâ; aperturâ ovatâ, posticè emarginatâ, anticè dilatatâ; long. 2'4, lat. 0'72 poll.

2. Melania Philippinarum.

Testâ elongato-turritâ, læviter subgranosâ, anfractibus convexis, longitudinaliter subcostatis, posticè propè suturam subangulatis, ad angulum tuberculatis, tuberculis subdepressis, anticè posticèque lineis transversis nonnullis plùs minusve elevatis, nonnunquam interruptis;

suturâ distinctâ: aperturâ ovatâ, posticè subsinuatâ, anticè dilatatâ; long. 2·55, lat. 0·95, poll.

My specimens of the recent species were received lately from Manilla. The fossil is found abundantly in a bed of marle, intermingled with Cyrenæ and fragments of shells, above a thick bed of white sand, between Charlton and Woolwich, in Kent; also in several other parts of England; and in several localities in France. The best representations of the fossil are those given in Mineral Conchology. l. c. I have never seen a single specimen of the fossil with the outer lip complete; but it is easy to trace the form of it by the lines of growth, which are sometimes very strongly marked. In order that this subject may be as fully illustrated as possible I have added a correct representation of each of the varieties of each species.

Naturalists will now be able to form their own opinions as to the identity or non-identiiy of these recent and fossil shells.

References to Plate I.

Fig. 1, 2, 3. Tubercular varieties of Melania Philippinarum nobis.
a. a. the space between the posterior tubercular ridge and the suture.

4. Variety of Melania Philippinarum nobis, without a tubercular ridge.
a. a. The space between the posterior ridge that is usually tuberculated and the suture.
b. b. Distinct lines of growth showing the form of the outer lip.

5. Melania inquinata, Defr.
a. a. The space between the posterior tubercular ridge and the suture.

6. Melania inquinata, Defr., a specimen showing the manner in which the tubercles of the posterior ridge are commonly eroded.
a. a. The space between the posterior tubercular ridge and the suture.

7. Melania inquinata, a specimen to show the form of the outer lip, comparatively with fig. 4.

a. a. The space between the posterior tubercular ridge and the suture.

b. b. Distinct lines of growth showing the form of the outer lip, comparatively with *b. b.* of fig. 4.

Art. II. RECTIFICATION of some mistakes relative to the Genera Crania Retzius and Orbicula of Lamarck, which have been committed by various Authors: by G. B. SOWERBY, F.L.S., &c.

That men of science and naturalists are every day more and more fully convinced of the necessity of exactness or precision, is proved by the comparative care and attention to minutiæ with which their researches are conducted at the present time, in contradistinction to the apparent negligence and inattention to important circumstances, which formerly characterized their discriminations. Even geologists, who formerly paid so little attention to specific differences, and who considered every fossil without exception as a result of the Noachian deluge, appear now to think it necessary before drawing their conclusions, to make themselves acquainted with the generic and specific distinctions of the fossils which characterize different geological periods, inasmuch as they find that their conclusions may be in a greater or less degree confirmed or invalidated in proportion to the exactness with which they may have deduced them from facts. It is now well known that every thing in nature is governed by fixed laws, therefore those who wish to become acquainted with her works must be extremely precise and attentive in their pursuit of this knowledge.

For this reason, when I am convinced that any of my fellow students have, in consequence of carelessness or inattention in conducting their researches, arrived at incorrect conclusions, I consider it to be my duty to endeavour, if in my power, to set them right; and for the same reason I am happy when any who are farther advanced in any particular branch of this study than I am, think so well of my labours as to take

the trouble to instruct and correct me. I am so well aware of the real imperfections attending the labours of even the best informed that I never will be displeased at the exposure of my own imperfections, indeed it will always give me pleasure when convinced of them to acknowledge my errors. In my published works I am aware that some errors have obtained publicity—some of them caused by misapprehension, some also I fear by inadvertence, and I am determined, as opportunity occurs to point them out and give the necessary corrections. I may consider it rather a fortunate circumstance for me, that most of these errors are of such a nature that there exist very few persons who are able to detect them. The present paper may be considered as the first fruits of such determination.

I would therefore engage the attention of malacological students to the subject of the following references.—

DISCINA, Lamarck Hist. Nat. des Anim. sans vert. tome vi. 1re partie, p. 236.

CRANIA, ibid. p. 237.

ORBICULA, ibid. p. 242.

Remarks on the Genera Crania and Orbicula of Lamarck, Trans. of Linn. Soc. vol. XIII. p. 465, by G. B. Sowerby.

CRANIA, } Sowerby's Genera of Recent and Fossil Shells, Nos.
ORBICULA, } 12 and 13.

DISCINA, } Fleming's History of British Animals, p.p. 376, 377.
CRIOPUS, }

Discina, Turton's Conchylia Insul, Brit. p. 237.

And I have referred to these five works, because there is in every one of them some error in connection with this subject.

I commence with Lamarck for two reasons,—because he is the first in order of publication and because it appears that almost all the errors in the other works have been caused by too implicity relying on his correctness. The genus *Crania* was adopted by DeBlainville and Brugüière from Retzius and may be considered as a perfectly well established genus; Lamarck appears to have adopted it in reliance upon those authors without being in the slightest manner acquainted with it himself; afterwards

finding the *Patella anomala* in Müller's Zoologia Danica and not recognizing their identity, though he appears to have observed a degree of resemblance, he seems to have founded his genus *Orbicula* partly upon Müllers plate and partly upon some recent specimens of a very different thing which existed in the collections at Paris at the time. Müller's *Patella anomala* is however absolutely identical with the *Crania Personata*, consequently Lamarck's genus *Orbicula* must be entirely abandoned unless it can be used as applied to that other very different thing which Lamarck had under his observation at the same time and which he did not distinguish from Müller's *Patella*; and this is what I think ought to be done. But this is not the end of the confusion caused by Lamarck's inattention; for upon receiving from my Father some specimens of a small attached bivalve which I found among some Ballast, and not identifying them with the other similar things which he had before considered as identical with Müller's *Patella anomala*, he has put these into another place in his Système, under the name of DISCINA *ostreoides*. Thus his genus *Orbicula* has been formed in a great measure upon a shell which is identical with his *Crania*, but separated from it by being placed among the *Brachiopodes*, while *Crania* stands in the Rudistes; and his genus *Discina* has been made out of another thing which properly belongs to *Orbicula*, but separated from it by being placed among the *Rudistes*, while *Orbicula* stands among the *Brachiopodes*. Lamarck should also have referred Poli's *Anomia turbinata* to *Crania* and not to *Orbicula*.

I must now acknowledge my own errors, which have, however, principally, if not entirely been caused by my placing implicit confidence in the correctness of Lamarck. The first and leading error of which I have been guilty is that of having adopted Lamarck's incorrect notion by supposing the Patella *anomala* of Müller to be distinct from *Crania* and regarding it as forming the typical species of *Orbicula*; my next error has been that of identifying the shell I found among Ballast with *Orbicula* norvegica of Lamarck whereas it ought to have been placed as a new species of that genus. These errors of mine appeared first in the Linn. Trans. and they have been continued in my work on the Genera

Now that I am convinced of them I have much pleasure in giving the corrections.

Turton, whose work on the British Bivalves stands next in order of date, has inadvertently united the true *Crania* and *Orbicula* together, giving them the name of *Discina*: his mistake is however of little importance because he never can be regarded as authority upon this subject.

I now come to Fleming, "who gives a place to *Discina ostreoides* of Lamarck, even without good proof of its British origin, for the purpose of rectifying some strange mistakes in nomenclature which have been committed in reference to this and the following genus" (which is *Criopus, of Poli*) but this author who thus makes his appearance, "*ex Cathedra*," to set us all right, has neither hit upon the first and great cause of all the errors, nor has he corrected the real errors, and he has moreover made some addition to their number. He does not tell us what are the mistakes that he intends to rectify, we are left to find them out, if we can: but we are to take his version of the matter, without his having condescended to give us a reason for any part of it and we are to conclude, with implicit reliance upon his correctness, that he has rectified every mistake that had been committed by all authors who have written upon the subject down to the time of his advent. We shall now see how he has done this—in the first place he has adopted Lamarck's genus *Discina* which ought to have been expunged from the system altogether, and has added to it three fossil species of Orbicula which have been published in the Zoological Journal and in Mineral Conchology: then for the *Crania* he has used the name Criopus which Poli gave to the animal alone instead of using the name which had long before been given to the shell by Retzius and adopted by all authors, except those of the Linnean School: and then further, without giving any reason, asserts it to be probable that *Crania* of Lamarck is distinct from *Criopus*. He also says that I have asserted the Orbicula, of Lamarck to differ only in the greater thickness and irregularity of the lower valve from the type of the genus *Criopus* of Poli. Whereas, what I have said is this, "The only difference observable between the specimens (of what I have called

Crania personata of Lamarck) from Shetland and those from the Mediterranean is in the thickness and irregularity of the lower valve". The *Discina ostreoides* of Turton is composed, as we have already stated, of two different things (one from the description being an *Orbicula* and the other from the synonyms a *Crania*) Fleming has therefore been incorrect in quoting it only under his *Criopus*, Fleming has moreover committed a mistake in coining a word, which he has used *without explanation*, in his description. Of the signification of this word "*arculated*" it is impossible to form any conjecture; I thought at first that it was only the accidental admission of a supernumerary letter, and that it ought to be read "*arcuated;*" but when I looked for these two arched, or arcuated, subcentral muscular impressions in a number of upper valves of Crania which lie before me at the moment of writing this, my search was entirely unsuccessful, and I remained ignorant of the signification of his new word. I wish Fleming had condescended to favour us with the signification of several other words which we frequently meet with in the same work, and which, being quite new to us, we cannot perfectly understand. Such things as these are, however, of trifling importance when compared with the interminable mistakes and absurdities which disgrace the History of British Animals, by Dr. Fleming.

I must now conclude by correcting two other errors which I have committed, both depending upon the same cause as the first. Poli was quite right in identifying Müller's Patella anomala with his own Criopus. And De Blainville has been mistaken in referring the shell which I found among ballast to Patella anomala of Müller; but he has rightly referred it to Orbicula.

Art. III. A DESCRIPTIVE CATALOGUE of the species of Leach's Genus MARGARITA.

§ 1. Testâ non umbilicatâ.

1. Margarita tæniata. Testâ orbiculari-subconicâ, tenui, lævissimâ, albidâ, transversim rufo-vittatâ; anfractibus quinque subrotundatis, ultimo multo majore; suturâ indistinctâ; aperturâ ferè orbiculari, columellâ subincrassatâ, extûs depressiusculâ; long. 0·85, lat. 1 poll. Conch. Illustr. Marg. f. 2.

Syn. Turbo tæniatus, Sowerby in Tank. Cat. App. p. xiii.
Hab. ad oras Americæ meridionalis.

2. Margarita violacea. Testâ orbiculari-subconicâ, tenui, lævi, rufescente; anfractibus quatuor, tumidis; suturâ subobsoletâ; aperturâ ferè orbiculari, infra subangulatâ; columellâ subincrassatâ, subarcuatâ, sulco longitudinali instructâ; long. 0·4. lat. 0·45. poll. Conch. Illustr. Marg. f. 11, 12.
Syn. Margarita violacea, King Zool. Journ. vol. v. p. 346.
Hab. ad fretum Magellanicum (Port Famine.)

Obs. Of this shell the Indians make their necklaces; it is found adhering to the leaves of Fucus giganteus, and is the principal food of the racehorse duck (Capt. King). This shell is usually of a dull reddish colour (not violaceous), but sometimes it is of a pale dull yellowish brown.

3. Margarita expansa. Testâ orbiculari, latâ, tenui, lævi, rufescente, anfractibus quatuor subrotundatis, levatiusculis, ultimo maximo; suturis subinconspicuis; aperturâ orbiculari; columellâ latiusculâ, arcuatâ, sulco longitudinali instructâ; long. 0·5. lat. 0·55, poll. Conch. Illustr. Marg. f. 16.
Variat colore pallido. Conch. Illustr. Marg. f. 17.
Hab. ad fretum Magellanicum (Port Famine).

4. Margarita sigaretina. Testâ orbiculari-subdepressâ, tenui, lævi, rufescente; anfractibus tribus, tumidis, posticè depressiusculis, ultimo maximo; suturâ subinconspicuâ; aperturâ maximâ, suborbiculari, subobliquâ; columellâ latiusculâ, planulatâ, arcuatâ, sulco longitudinali, indistincto instructâ; long. 0·35, lat. 0·5, poll. Conch. Illustr. Marg, f. 14.
Variat colore pallido.
Hab. ad fretum Magellanicum (Port Famine)

§ 2. Testa umbilicatâ.

5. Margarita vulgaris, Leach. Testà orbiculari, subdepressâ, tenui, nitidâ, pallescente: anfractibus quatuor, subtumidis, depressiusculis, ultimo majori; suturâ profundâ, aperturâ magnâ,

suborbiculari, posticè angulatâ; umbilico magno, profundo: long. 0·1, lat. 0·15. poll. Conch. Illustr. f. 13.

Hab: ad littora Britannica.

Syn. Turbo Margarita, Lowe in Zool. Journ. II., p. 107. tab. V., f. 10. 11. 11. b.

Helix margarita, Laskey.

6. Margarita carnea, *Lowe*. Testâ subconicâ, spirâ brevi, apice elevato, acuto; anfractibus quatuor, striis elevatis, regularibus subdistantibus cinctis; aperturâ magnâ, suborbiculari, anticè subangulatâ; umbilico magno, profundo: Conch. Illustr. Marg. f. 9.

Hab: ad littora Scotica. (Oban)

Syn. Turbo carneus, Lowe in Zool. Journ. II. p. 107. tab. V. f. 12. 13. 13. b.

7. Margarita striata. Testâ conoideâ, anfractibus sex rotundatis, spiraliter striatis, striis elevatis, posticis distantibus, anticis approximatis, umbilico parvo; long. 0·85, lat. 0·9, poll. Conch. Illustr. Marg. f. 3. 18.

Syn. Margarita striata, Brod. & Sowerby in Zool. Journ. IV. p. 371.

Hab. in Oceano boreali.

Obs. This shell has a dull surface; its longitudinal striæ are decussated by very fine and close-set lines of growth.

8. Margarita arctica Leach. Testâ orbiculari, subdepressâ, tenui, nitidâ, olivaceâ: anfractibus quatuor, tumidis, ultimo majori; suturâ profundâ; aperturâ orbiculari, magnâ; umbilico magno; profundo; long. 0·15, lat. 0·2, poll. Conch. Illustr. Marg, f. 6.

Syn. Margarita arctica, *Leach* in Ross's Voyage of Discovery, 1819. 8vo.

——— helicoides, *Beck*, MS.

Hab, in mâri artico (Baffin's Bay, Sabine; Greenland, Beck.)

9. Margarita Grænlandica, *Beck*. Testâ orbiculari, tenui, nitidâ, pallidâ, spirâ elevatiusculâ; anfractibus quinque rotundatis, lineis incrementi tenuissimis solùm sculptis; suturâ distinctâ; aperturâ sub-

orbiculari; umbilico magno; long. 0·5, lat. 0·55. poll. Conch. Illustr. Marg. f. 10.

Syn. Margarita Grænlandica, Beck, M.S.

Hab. in mari Grænlandico.

10. Margarita umbilicalis. Testâ orbiculari, depressiusculâ, tenuissimâ, nitidâ, corneâ; anfractibus sex subtumidis, posticis spiraliter costellatis; suturâ distinctâ; aperturâ orbiculari; umbilico maximo; long. 0·6, lat. 0·8, poll. Conch. Illustr. Marg. f. 5.

Syn. Margarita umbilicalis, Brod. & Sowerby, Zool. Jour.

Hab. ad Insulam Melville dictam, maris arctici.

11. Margarita sulcata. Testâ orbiculari, depressiusculâ, tenuissimâ, nitidâ, corneâ; anfractibus sex, subtumidis, spiraliter sulcatis, sulcis tenuibus, distantibus; suturâ distinctâ; aperturâ orbiculari; umbilico maximo: long. 0·27, lat, 0·46, poll. Conch. Illustr. Marg. f. 1.

Hab. ad Insulam Melville dictam.

12. Margarita undulata. Testâ orbiculari, obtusè conicâ, tenui, rosaceâ, anfractibus quatuor, subtumidis, spiraliter sulcatis, posticè ad suturam undulatis; aperturâ suborbiculari; umbilico mediocri; margine angulato; long. 0'26, lat. 0'33, poll. Conch. Illustr. Marg. f. 4.

Hab. in mari arctico.

13. Margarita costellata. Testâ orbiculari, obtusè conicâ, tenui, fuscescente; anfractibus quatuor, tumidis, spiraliter costatis, basi subangulatis, inferioribus subinconspicuis; aperturâ suborbiculari, anticè subangulatâ; umbilico parvo: long. 0'3, lat. 0'33, poll. Conch: Illustr. Marg. fig. 15.

Hab. in mari arctico.

14. Margarita acuminata. Testâ orbiculari, tenui, albicante, spirâ acuminatâ, anfractibus quinque rotundatis, lævibus; suturâ distinctâ; aperturâ orbiculari; umbilico parvo: long. 0·55, lat. 0·5, poll. Conch. Illustr. Marg. fig. 7.

Hab. in mari arctico.

15. Margarita Solariiformis. Testâ orbiculari, sublenticulari, tenuissimâ

anfractibus quinque, lævigatis, subplanulatis, spiraliter tenuissimè striatis, pallescentibus, minutissimè albido-fuscoque articulatim pictis; aperturâ subquadratâ; umbilico magno, profundo: long. 0·25, lat. 0·35. Conch. Illustr. f. 8.

Hab:

Obs. This appears to be an osculent species, connecting Margarita with Solarium.

Miscellaneous Observations.

Some time since I was surprised at learning the fact that the foot of Cyclostoma elegans is longitudinally divided by a deep groove, which had lately been observed by my friend Lewis of Kensington, though it had been overlooked by Berkeley, but having accidentally met with the work of Rossmæsler I find the circumstance is distinctly noticed, and several representations given. But there is another fact relative to a well known land shell (the *Helix epistylium*) first pointed out to me by the same Gentleman, which I believe has not yet been noticed in any publication. It is that this species is viviparous and its young are fully developed before they quit the parent, in the same manner as the young of *Paludina achatina*. It has long been well known that many of the pneumonobranchous Mollusca lay eggs, which are covered with a calcareous crust in the same manner as the egg of Birds, but I have only met with two species to which the term *viviparous* may justly be applied. This *Helix epistylium* is one instance, and the other is a small turrited species of *Achatina*, which I have named *Achatina vivipara* from this circumstance. Three or four fully developed young shells may generally be found, upon breaking up a full grown shell, occupying commonly a great portion of the second, third and fourth volutions from the base. The shell is commonly about an inch long, consisting of about nine volutions, the apex being blunt and rounded, the volutions longitudinally striated and the base smooth; the whole nearly white, semitransparent and covered with a thin olivaceous horny epidermis: the young ones consist of three volutions before they quit the parent.

Some of the Lamarckian *Ampullariæ* are viviparous, but I have it not in my power at present to ascertain which species; the circumstances, however, which I am about to mention seem to prove that one of these viviparous species (if there be more than one) is sometimes reverse. I had once a parcel of Ampullariæ in a small tray, which I had packed up in a box, and being subjected to rather violent shaking during a short Journey, when the package was opened there were found in the tray about *twenty* very young, but fully formed Ampullariæ, *two* of which were *reverse*. Now as there was not a single reverse Ampullaria among the old shells that were packed in the tray, these two reverse young ones must have been the produce of one that was not reverse and most probably belonged to the same brood as the other young ones. This must have been one of those species of Ampullariæ (hitherto so called which have an *horny* operculum, for all the young ones are furnished with such an operculum; I would however suggest the propriety of separating those with a shelly from those which have only an horny operculum, if this has not already been done.

A word on the subject of the British shell commonly called Nerita littoreus and which Lamarck has named Turbo neritoides, may not be misplaced. The foot of its animal is divided by a longitudinal groove in the same manner as that of Cyclostoma elegans. This fact was pointed out to me by my friend Morris of Kensington, a few weeks ago at Carnarvon. This shell does not belong to the true Neritæ, and it is improperly placed by Lamarck among the Turbines, it appears to be more nearly related to the Littorinæ; though it is probable that upon a more intimate acquaintance with it, Naturalists may think it necessary to regard it as the type of a new genus.

Helix Helmii, Gilb. This appears to me to be a very distinct species, the shell is of a very pale horn colour, almost white, and extremely thin; its animal is of a dark blue grey colour, and it is remarkable that it is always found upon the ground and not upon the surrounding vegetation.

I have lately been requested by my friend Morris of Kensington to compare some fossil Valvatæ which he has found at Grays in Essex, with

the common recent species Valvata piscinalis of Lam. Upon examining my specimens of this latter shell, I find among them two distinct varieties or perhaps species. It is remarkable that Fleming in his specific character of this shell says " pillar with a *large* central cavity " (*or umbilicus*) and a few lines after, in the description, he says, " central cavity *distinct*, but *not large*:" but it is also remarkable that one principal difference between the two varieties or species (as the case may be) which I possess, consists in this very circumstance; it is therefore probable that this apparent discrepancy may be reconciled by the supposition that when drawing out his specific character Fleming had in view a specimen with a large umbilicus, and afterwards when giving a more detailed description he accidentally observed one with a small umbilicus. I am much disposed to regard these two recent sorts as distinct species, but I should prefer leaving it undecided until an oppotunity occurs of examining more specimens from other localities. But I must compare the fossil with both the recent sorts. First, let me examine comparatively the *dimensions* of the three; the fossil one (No. 1) is much larger than either of the recent ones, and of these latter, that with the large umbilicus, (No. 2.) is much larger than that with the small umbilicus (No, 3.). Next, let me examine comcomparatively the *proportions* of the three sorts; No. 1, in its greatest length measures 34 hundredths of an inch, and in its greatest breadth 26 hundredths; the length and breadth of No. 2, are exactly equal; and No. 3, is rather wider than it is long: the proportions of the three sorts differ therefore very evidently. Further, as regards other characters; the sutures in No. 1, and No. 2, are equally distinct and deep, while that of No. 3, is not nearly so strongly marked: the volutions in No. 2, are regularly rounded, while those of No. 1, increase gradually from the upper toward the lower parts, though they are still very nearly regularly rounded, while in No. 3, they increase still more gradually. In No. 1, there are six volutions, in No. 2, there are five, and in No. 3, scarcely four and an half.

REVIEW.

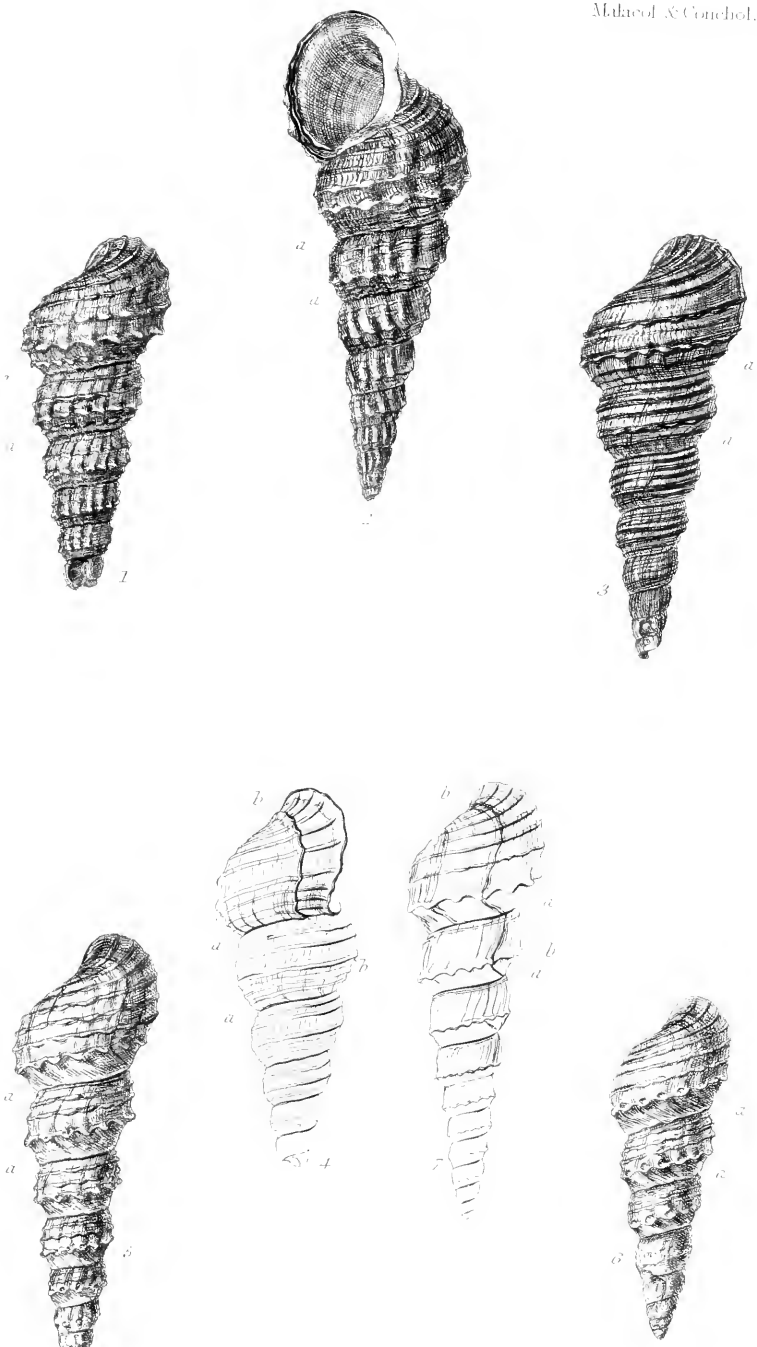
1. *A Catalogue of Recent Shells, with descriptions of new or rare species in the Collection of* JOHN C. JAY, *M. D. second edition New York* 1836, *illustrated by four plates.*

Here is a Catalogue of Shells consisting of more than 4000 species, we believe the most extensive that has yet appeared in print. As such we think it may be useful, though even in that respect it is evidently far short of what might be done with ease at the present time. But it is sent out with such unpretending modesty that criticism is disarmed, and our business is only to point out to Dr. Jay a few of the most important errors and to offer him our best thanks for his very acceptable little book. First then let us inform him that *Aphrodite Columba* of Lea, is neither more nor less than the well-known *Cardium Grœnlandicum* of Lamarck, and that it decidedly belongs to the family of the *Cardiacea*, and *not* to the *Conchæ fluviatiles;* secondly, we regret that Dr. Jay has not informed us whose genus *Dythalmia* is, and where the description of it is to be found; we ask this because we strongly suspect it to be the same thing as that which has been called *Dreissena* by some continental writer and no other than the *Mytilus Polymorphus* of Gmel. We mention this merely because we would take this opportunity of cautioning those who take upon themselves the responsibility of giving names, to endeavour first to ascertain what has been done by others, and not hastily to give a generic appellation to a subject which may already have one or even more. We do not intend to find fault with the establishment of this genus, but we believe this will prove to be the second generic name which has been applied to it. The word itself, moreover, appears to us to be of Greek derivation, and we fear it is not classically compounded. We are surprised to see *Laplysia* used, in this and some other very modern works, instead of the corrected term *Aplysia.* But we say no more at present on nomenclature, reserving some hints on that subject for an opportunity of giving them more fully

and more generally. Let us now turn to Dr. Jay's plates, we shall here find that he has described and figured as new eleven species, most of which have been already described or figured long since. Fig. 1, which Dr. Jay names *Pupa ringens* is *Clausilia pantagruelina* of Moricand* Fig. 2, (*Megaspira Ruschenbergiana.* Lea,) is *Pupa elatior* of Wagner. Fig. 3, *Bulimus melastomus*§ of Swainson. Fig. 4, (*Pupa egregia* of Dr. Jay) is the young shell of *Bulinus bilabiatus* of Sowerby, published in the Zoological Journal. vol. V. p. 49, and afterwards *B. maximilianus* by Moricand. Fig. 6, *Ranella pulchella* of Gray. In his Fig. 8. (*Ampullaria ochracea* of Jay ;) we see nothing but one of the numerous varieties in colour of *Ampullaria fasciata,* Lamarck. Fig. 10. (*Natica imperforata,* Jay,) was described under the name of *Natica fluctuata,* in the Tankerville Catalogue in 1825. Fig. 11, (*Neritina papillosa,* Jay,) was described under the name of *Neritina granosa,* also in the Tankerville Catalogue.

* This indeed is not a *Clausilia,* neither is it a *Pupa.*

§ Which ought to be *melanostoma.*



THE YORKSHIRE METEORITE.

Mr. G. B. SOWERBY begs to state that, being commissioned by those branches of his late Father's Family, whose property the famous Yorkshire Meteorite at present is; he has adopted a plan which was proposed two years ago, and a short address which was drawn up at that time by a Gentleman connected with the British Museum.

December 13th. 1835.

Whether we consider Meteorites as foreign to the confines of our atmosphere, as ejections or fragments of Planets moving within the compass of the solar system, or as the chemical products of electrical phænomena,—certain it is, that even the most satisfactory solution of the Problem respecting their origin would neither weaken the general interest which must ever be excited by each successive appearance of these mysterious visitants to our Planet, nor create indifference toward such of an older date, as are distinguished by any peculiarity in their nature, or by any remarkable historical circumstance connected with them. In the latter class is most indisputably to be placed the far-famed subject of this short address which fell from the atmosphere in the Parish of Thwing, East Riding, Yorkshire, this Day Forty Years ago, during which period, it has maintained its superiority in size not only over those few which descended in Great Britain, but also over those of the Continent, (as far as we know of their) existence with the sole exception of that of Ensisheim, still preserved in the Capital of the Territory in which it descended in 1492. But setting aside the bulk of the Yorkshire Stone, the circumstance alone of its being intimately connected with a new era in the history of the extraordinary Atmospheric Phenomenon in question, will ever make it rank as one of the most valuable specimens of Natural History preserved in England. In it we possess the principal one of the Three Stones, the chemical analysis of which, converted into certainty an opinion which was till then (and by the more sceptical even after that period,) discarded as a superstition unworthy of the advanced state of Natural Science at the end of the Eighteenth Century. Upwards of Thirty-eight Years ago, its exhibition in London furnished to many learned men of the day, a theme for censure on the blind credulity of the Public, till Sir JOSEPH BANKS's keenly discriminating eye discovered an agreement in external characters between it and two other Stones transmitted to him about the same time, the one from Sienna, the other from Benares, in the East Indies, and to both of which, report has ascribed a similar origin with that under consideration. Having obtained a small fragment from the latter, a portion of each of the specimens (subsequently deposited in the British Museum,) was submitted to chemical analysis by Mr. HOWARD, whose excellent paper in the Philosophical Transactions for 1802, secured to the Yorkshire Meteorite the eminent rank it has ever since occupied in the record of facts relating to this interesting subject of research.

The Yorkshire Meteorite is well known to have become the property, and to be still in the possession of, the family of the late Mr. SOWERBY, who now intend to part with it. Proposals for purchasing it by Subscription, with a view to its being placed in the British Museum are accordingly submitted to the Public at the suggestion of several Members of Scientific Societies, who are of opinion that its interest as a most remarkable object of the Natural History of Great Britain will secure a sufficient number of Subscribers to obviate the possibility of its being eventually lost to this Country through offers which may be made by Continental Museums.

As soon as £300. shall be subscribed, the Meteorite will be delivered to the Trustees of the British Museum, together with a List of the Subscribers, which will then be printed, and each Subscriber will be furnished with a copy. The Subscription Book is open at Mr. SOWERBY's, 50, Great Russell Street, Bloomsbury.

NOW READY.

Part I.

OF A

MALACOLOGICAL & CONCHOLOGICAL

Magazine,

WITH GRAPHIC ILLUSTRATIONS.

CONDUCTED BY

G. B. SOWERBY, F. L. S.

TO BE CONTINUED MONTHLY.

N. B. *This Magazine is printed for private gratuitous distribution only.*

Societies and Private Individuals desirous of possessing it are to send their Names or Designations and their *exact* Addresses, *at their own expense*, to Mr. SOWERBY, 50, Great Russell Street, Bloomsbury, London.

Advertisements cannot be inserted unless sent before the 20th of each month.

CONCHOLOGICAL

ILLUSTRATIONS.

The Cypræadæ being completed in the 131st part of the Conchological Illustrations, G. B. Sowerby, Jun. gladly avails himself of the opportunity to return thanks to his subscribing friends for the encouragement hitherto afforded to his laborious undertaking; and also to take a retrospective view of the progress of the work, from its commencement up to the present time.

The design of the work being to facilitate the knowledge of species hitherto unknown, or known *only* by description, we commenced with the Cypræadæ; our first 8 parts containing 70 previously unfigured species of that interesting and highly appreciated family, with a complete catalogue, prepared by Mr. G. B. Sowerby, Sen., in which all the new species are described.

In reference to the genus Cypræa, however, we have departed from our prescribed course, by giving, in the later parts, representations of all the remaining species, whether previously figured or not. A complete illustrated monograph is thus formed in parts 1 to 8, and 101 to 131, consisting of about 182 species and varieties, and obviating the necessity of refering to a dozen or so of large and expensive publications, which do not come within the reach of all who desire to possess a knowledge of the subject. Parts 9 to 13 contain 42 Cancellariæ, some of the most beautiful of which were among the late imports of the indefatigable Mr. Cuming, on whose return from a second collecting expedition, we anticipate a rich harvest of new discoveries. This genus is also published with a catalogue. Parts 14 and 16, contain 24 new species of Nucula. In parts 17 to 19, are represented 10 species of Amphidesma, which are not in the Species Conchyliorum, although that important publication contains more than are to be found in any other. A catalogue is given with this genus; and another of Eburnæ, in part 20, with 4 new species. Parts 24, 25, 28, 29, 32, 33, 36, 37, 54, 55, 56, 57, contain 73 species of the much valued genus, Conus; and the intermediate

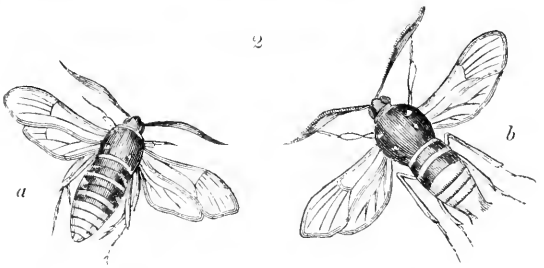
parts, 21, 22, 23, 26, 27, 30, 31, 34, 35, contain 60 species and varieties of Bulinus, many of which are quite new. Of the 51 Chitones, contained in parts 38 to 45, many are extremely beautiful, and some were brought to the country, for the first time, by Mr. Cuming. Parts 46 to 51, contain 32 species and varieties of Cardium. A complete monograph of the small, but interesting genus Eulima, consisting of 15 species, is given in parts 52 and 53. We feel particularly gratified in having been enabled, in parts 58 to 67, to make 57 additions to the known species and varieties of Murex, a genus which should be better studied than it is, including, as it does, many of what may be considered, in form, sculpture and colouring, as the most elegant of shells. Parts 68 to 78, and 80, contain, with a catalogue, all the species and varieties of the genus Fissurella about 64 in number. Parts 79 and 81 to 83, present illustrations of 15 species of Monoceros, a catalogue of which genus will be given in part 135. In parts 84, 85, 88, 89, 92, 93, are represented 22 species of Ranella. The 60 species of Neritina, figured in parts 86, 87, 90, 91, 94 to 100, will be formed into a complete monograph, by the addition of a catalogue, to be given with part 138.

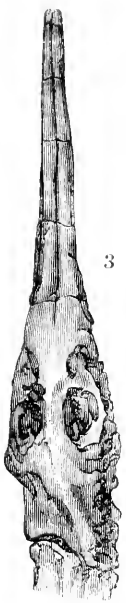
On summing up the whole, it will be found that the 131 parts, already published, contain 1,062 figures of 714 species and varieties making important additions to 15 different genera, and 7 complete catalogues, 3 more of which will appear in the next seven parts.

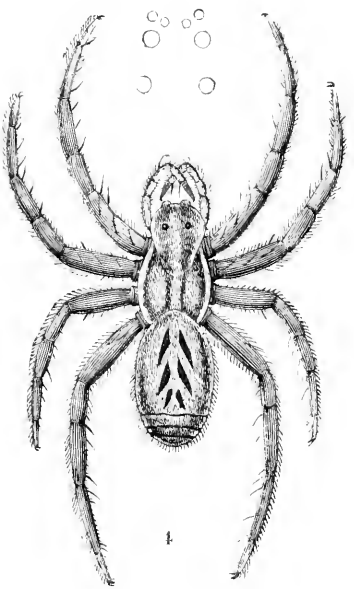
We think it decidedly the better plan to keep works of this nature unbound in *Solanders*, or book-boxes, and arranged according to the genera; but for the convenience of subscribers, who may be anxious to bind their copies, we think it best to state that parts 133 and 134, will contain the remainding species of Margarita, with a catalogue. Parts 135 and 136, Chilina, with a catalogue, and also a catalogue of Monoceros. Parts 137 and 138, with other subjects, a catalogue of the genus Neritina. All the subjects hitherto commenced, will then be as complete as we can make them at present.

G. B. S. Junr., begs leave to add, in conclusion, that no pains or expense will be spared to render the Conchological Illustrations increasingly worthy of the place it must necessarily occupy in the scientific literature of the country.

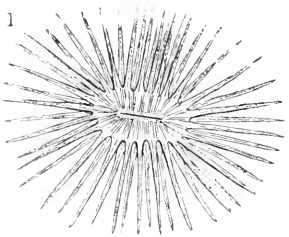
Specimens of the Wood-Engraving in the Volume for 1837, *of the New Series of the Magazine of Natural History.*

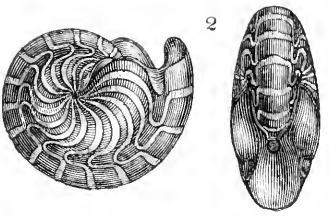


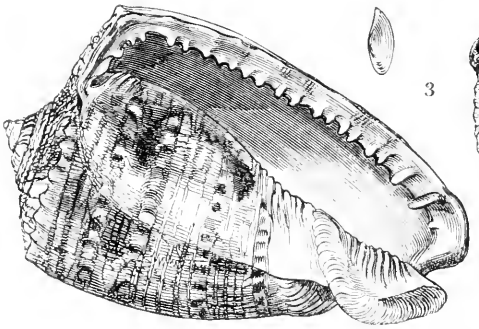


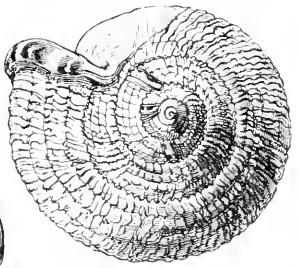


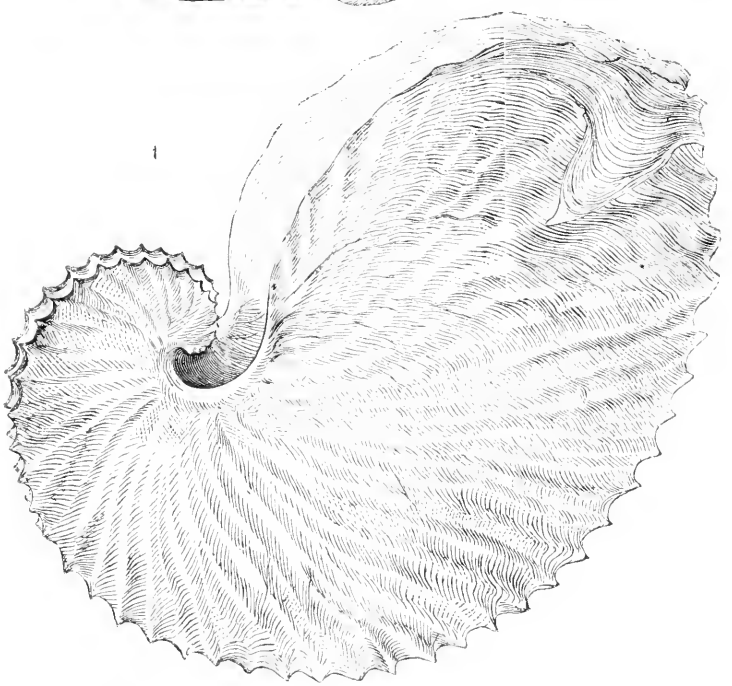
1. Cut illustrating the paper of Mr. Yarrell and Dr. Clarke, on the capture of the genus Hemiramphus, on the Suffolk coast.
2. Rev. W. T. Bree's observations on the Lunar Hornet Sphinx.
3. Communication of Viscountess Sidmouth, on a Fossil Crocodile.
4. Memoir of M. Leon Dufour on the Tarantula.



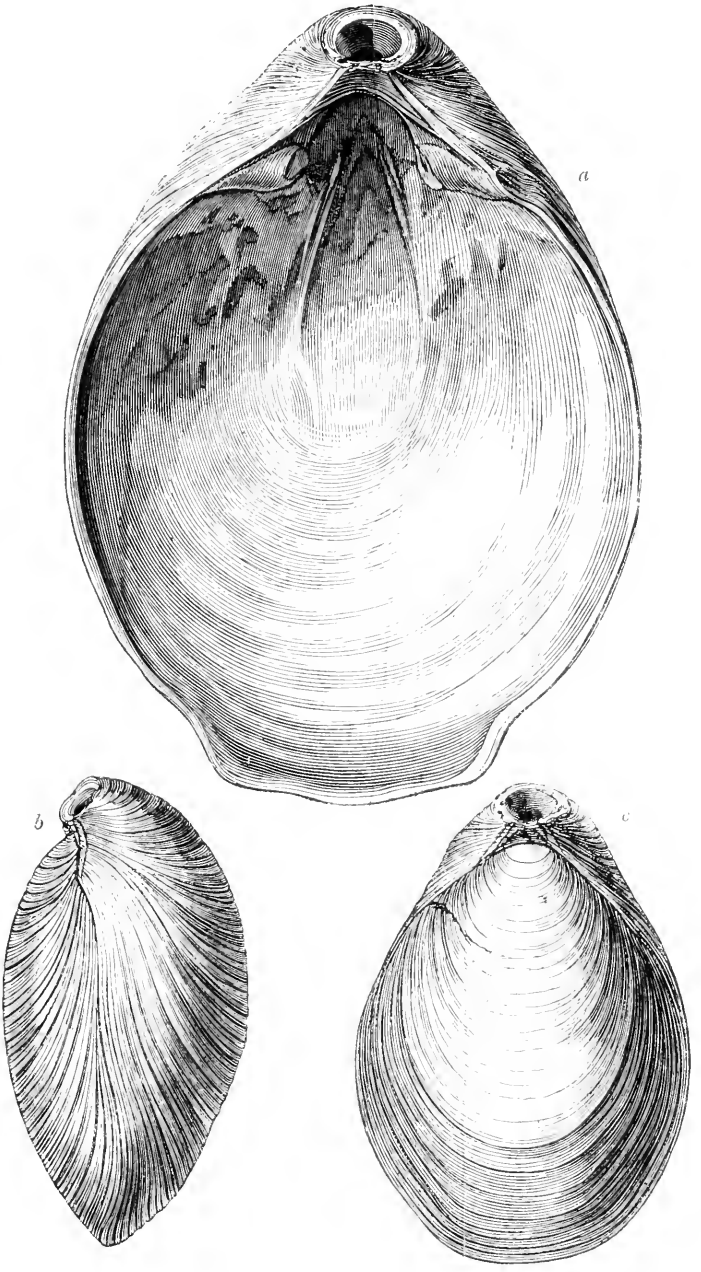








1. Mr. Harvey, on the animals of some Corals.
2. Mr. Charlesworth, on a form of Fossil Cephalopodous Shells, connecting the genera Nautilus and Ammonites.
3. Mr. Sowerby, on the proposed genus Cypræcassis.
4. Mr. Charlesworth, on the power which the animal of the Argonaut has of repairing breaches in its shell.



Mr. Charlesworth, on a gigantic Fossil Terebratula from the Coralline Crag.

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conducted by

EDWARD CHARLESWORTH, F.G.S., &c.
zoological assistant secretary to the zoological society.

with illustrations by JAMES DE CARLE SOWERBY, ESQ.

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