

SOME EOCENE MOLLUSCA, WITH DESCRIPTIONS OF NEW SPECIES

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LONDON is perhaps discredibly unique among the world's great cities by having below and all around it a large and interesting fauna of fossil mollusca which still is, to a great extent, undescribed, unfigured and, so, unknown. Recently, in preparing a geological description of several London excavations, my list of their fossils had to be blemished with several MS. names of species; since the materials for their study were assembled, the time seemed suitable for writing the following descriptions of them, with a few notes upon others already known.

Genus CUSPIDARIA Nardo, 1840

Genotype (original), *Tellina cuspidata* Olivi, RECENT

1. CUSPIDARIA INFLATA (J. de C. Sowerby). (Figs. 1, 2, 3, 4)

Nucula inflata J. de C. Sowerby, 1827, p. 103, pl. 554, fig. 2.*Neaera rostratissima* (Edwards MS.) Newton, 1891, p. 91.*Neaera lamellosa* (Edwards MS.) Newton, 1891, p. 90.

Distribution.—Widespread but uncommon in the lower and middle parts of the London clay of the London basin and at Bognor but not known to occur in the Hampshire basin.

Sowerby figured juveniles of the species which, like those usually found, are truncated. This can be seen from the blunt and fractured appearance of the rostral end. Fig. 4 shows a complete specimen of the size most commonly found. The rostrum bears two or three rays near the dorsal margin. The sculpture varies; typically (fig. 4) the concentric lines are close, fine and unequal but in other forms (fig. 2) they are regular, relatively distant, with a simulation of lamellae. F. E. Edwards labelled this form *lamellosa*, a name which is preoccupied by Sars, but there is no specific difference here, because several specimens give a transition from the widely-spaced lines to the closer sculpture of the type. The original of fig. 2 has strongly marked rostral rays, but this development is not constantly associated with the distant concentric lines. Fig. 1 shows one of the few known forms to which Edwards gave the MS. name of *rostratissima*. They are exceptionally large and very tumid, with a conspicuously long rostrum. Mere size, although it suggests inquiry, is not a specific character nor, by analogy with the living *C. cuspidata* (Olivi), is the relative length of the rostrum. A careful inspection of the growth lines of *rostratissima* shows that the outline of the typical *inflata* (fig. 4) is found upon it at an early stage of growth. The sculpture in fig. 1 is typical, faint continuations of the rostral rays are visible and I conclude that this is a large *inflata*. When searching for the growth-line contour of the smaller

form, one must look at the large shell, not sideways in the plane of illustration but obliquely over the umbo and thus one sees that the shell grows obliquely outwards. Refer to fig. 3, which is a diagram of *Cuspidaria* seen from the rostral end; the valves grow obliquely outward in relation to their central plane, A having moved to B, at maturity. This explains the remarkable tumidity of the adult shell and the presence upon it of the curious, naked sunken escutcheon (E, fig. 3), clearly seen in fig. 1, for this is really the covering of a gap left by the rotation of the direction of growth, which is not simply outward but also forward away from the rostral end. *Aloidis* [= *Corbula*] has a similar alteration of growth-direction, but an abrupt one accompanied, in many species, by sudden changes of sculpture and of contour. Since here the earlier stage is far too large, relatively to the whole shell, for any probability of a larval stage or prodissoconch, some physiological explanation is desirable.

2. *CUSPIDARIA TRIRADIATA* nov. sp. (Figs. 5, 6)

Neacra triradiata (Edwards MS.) Newton, 1891, p. 91.

Holotype.—B.M., L.74204, London Clay, Stanwell reservoir near Staines, A. G. Davis collection, fig. 5, 7.0 mm. long (incomplete) \times 4.25 mm. high. *Paratype*.—From the same locality, fig. 6.

Distribution.—Rare in the London Clay at Stanwell reservoir and Haverstock Hill.

A moderately tumid species gradually attenuated at the rear into a carinated rostrum. The concentric sculptured lines are close and regular, bending sharply at the rostral carina towards the dorsal margin. Three curved rays (1, 2, 3, of figs. 5 and 6) traverse the shell from the umbo, 2 and 3 being closer than 1 and 2. Supplementary rays, slighter than the main ones, vary in number; the paratype is chosen for showing four of them, while the holotype has only one. A specimen from Haverstock Hill which has only a part of the shell preserved, shows that the three main rays are visible on the pyritic internal cast.

At least eleven subgeneric names have been proposed for the description of Recent *Cuspidaria*. Their accurate use requires a knowledge of the hinge which is invisible in all the London Clay specimens because they are entirely filled with iron pyrites.

Genus *TURBONILLA* Risso, 1826

Genotype (Monterosato, 1884), *Turbonilla costulata* Risso,
PLEISTOCENE

3. *TURBONILLA SUBTERRANEA* nov. sp. (Figs. 7, 8)

Chemnitzia Wetherell MS. for figs. 7 and 8 of an unpublished plate of Highgate fossils engraved by J. de C. Sowerby.

Turbonilla tenuiplica (Edwards MS.) Newton, 1891, p. 182, non Deshayes.

Turbonilla sulcata and var. *clarendonensis* (Edwards MS.) Newton, 1891, p. 182.

Holotype.—B.M., G.65545, London Clay, Highgate Wood [Finchley], Edwards collection, fig. 8, 9.0 mm. long (incomplete) \times 3.5 mm. max. diameter. *Paratype*.—From the same locality and collection, fig. 7.

Distribution.—Uncommon in the London Clay of the Highgate district¹, Willesden, Colney Hatch, Syon Hill (Brentford), Tolworth, Sheppey, Clarendon and Portsmouth Dock (*Lingula*-sands).

The description of a new species, while giving the characters common to all known individuals of it, should show how it differs from similar species of the same genus. I am unable to do this in words to my own satisfaction, but after comparing these London Clay shells with others like them occurring in the Eocene of Western Europe they seem to constitute a distinct species, so I will refer the reader to the figures and describe the considerable variation.

The outline of the whorls varies from flat to convex, the latter form only having broad, oblique varices, as in the holotype (fig. 8). The ribs are straight, strongest on the flat-sided whorls, always most prominent toward the apex of the shell and crossed by six spirals per whorl, which are variously salient and have a variable development of intercalated threads between them. Many specimens show a considerable effacement of the sculpture, the ribs almost vanish and the spirals appear as faint incisions with many intercalations: the paratype (fig. 7) is an example of this extreme. *T. edwardsi* Glibert is a comparable species commonly found at Barton where, at a single horizon, it shows much variation. Flat-sided whorls are associated with strong spirals and straight ribs without varices. Convex whorls have slightly oblique ribs with broad varices. These two conditions may be found in one individual as its earlier and later states, while an effacement of sculpture at maturity is variable in both forms. Guided by this variation of what, obviously, is one abundant species at Barton, one can see that the uncommon London Clay shells which might with difficulty be separated into two species are really varieties of one. *T. subterranea* and *T. edwardsi* display parallel variations at different geological times; this suggests inherent varietal tendencies rather than a trend of any evolutionary significance.

¹ All the Highgate specimens are filled up to the aperture with pyrites and do not look as if they came from the sandy top beds of the London Clay at the Archway: they probably are from the stiff clay of a lower level.

Genus ACRILLA H. Adams, 1860

Genotype (original), *Scalaria acuminata* (G. B. Sowerby), RECENT

4. ACRILLA CYMAEA nov. sp. (Fig. 9)

Foratiscala ? *cymaea* (Edwards MS.) Newton, 1891, p. 214.*Holotype*.—B.M., G.65547, London Clay, Potters Bar, Edwards collection, fig. 9, 24.0 mm. long \times 9.0 mm. max. diameter.*Distribution*.—Uncommon in the middle of the London Clay in the Highgate district, at Hampstead, Muswell Hill, Chalk Farm, Potters Bar, Whetstone, Syon Hill (Brentford), Worcester Park, Stanwell reservoir (near Staines), and Sheppey².

A species broader than the typical forms of the genus. The axial lamellae, 32 upon the penultimate whorl, are the predominant feature of the sculpture, their edges being crimped or serrated by the spirals which do not cross them. Very fine growth lines are visible between the lamellae. The spirals, with some fine intercalations, are closer near the sutures than in the centre of the whorl. The base is sharply angulated at a broad, rounded band, not crossed by the axial lamellae. These continue radially upon the base, which is covered with very fine, close, spiral lines. The edge of the columellar border does not project from the base and there is no trace of an umbilicus.

De Boury in Cossmann, 1912, p. 61, mentions *cymaea* under *Foratiscala*, but it shows no sign of the umbilicus characteristic of that genus. He ascribes it to the Thanetian of Clarendon, but it is unknown from that locality which is wholly in the London Clay.

5. ACRILLA WETHERELLII (Edwards) (Fig. 10)

Scalaria Wetherellii Edwards, in Lowry 1866, pl. 4.*Foratiscala* (?) *wetherelli* (Edwards MS.) Newton, 1891, p. 215.*Neotype*.—B.M., G.65548, London Clay, Potters Bar, Edwards collection, fig. 10, 33.5 mm. long (incomplete) \times 16.0 mm. max. diameter.*Distribution*.—Rare in the middle London Clay of the Highgate district, Potters Bar and Stanwell reservoir near Staines.

A species of proportions similar to the preceding one but considerably larger. The rounded spirals form the predominant feature of the sculpture; there are three fine ones at the rear of each whorl and then six stronger bands. The subordinate axial

² Sheppey is an exception to this species, being confined to the middle of the London Clay, for the top of the formation furnishes the fossils of Sheppey cliffs, but the whole molluscan fauna there has a facies persistence with a continuance of stiff clay sedimentation, replaced at this horizon around London by sandy clay with a different fauna.

lamellae, prolonged at the rear beyond the suture, are numerous and close; they are looped across the spirals and hardly project above them. The slightly convex base is obtusely but distinctly angulated at a narrow band not crossed by the lamellae, which continue as fine rays upon the base where they are crossed by very fine spiral lines. There is no trace of an umbilicus.

De Boury, on a label left with this species at the British Museum, wrote ? *Littoriniscala*. There is a resemblance to that genus which, however, has much finer and closer axial lamellae which are not prolonged at the rear beyond the suture, while the base is more convex and less clearly delimited from the rest of the whorl than in *A. wetherellii*.

Genus MATHILDA Semper, 1865

Genotype (original), *Turbo quadricarinatus* Brocchi, PLIOCENE

6. MATHILDA SORORCULA nov. sp. (Fig. 17)

Scalaria sororcula Wetherell MS. on an unpublished plate of Highgate fossils by J. de C. Sowerby, fig. 10.

Holotype.—B.M., G.65551, London Clay, Highgate, Wetherell collection, fig. 17, 8.25 mm. long (incomplete) × 4.0 mm. max. diameter. This is the original of Sowerby's unpublished figure.

Distribution.—In the upper third of the London Clay, below the sandy beds, in the Highgate district, at Muswell Hill (well); Hampstead (well), Holloway, New Malden, Tolworth, Sheppey, Syon Hill (Brentford), Bracknell; uncommon everywhere.

The apex is unknown and likely to remain so, because all the pyritized fossils found with this species are always corroded at the apex. The strongly convex whorls bear five major spiral bands, the three front ones being much stronger than the two at the rear: between these are intercalated bands which appear first at the front of the whorl, where they tend to equal the major bands. The base is covered with fine spiral lines and defined, at a very blunt angulation, by a spiral band which is covered at the suture. The slender axial lamellae are numerous, about as far apart as the major spirals and almost straight, their apparent curvature being an effect of perspective on a convex surface. These axials are very faintly continued upon the base. The aperture, which is not well-preserved, is certainly holostome; the columella is slightly bent to the right and covered by a very narrow free border which is reflected over a distinct umbilical chink. The junction between the columellar border and the outer lip is sharply angulated.

Comparable but distinct species are the Auversian *M. costellata* (Deshayes) and the Cuisian *M. baylei* de Boury, of the Paris basin and *M. tripartita* v. Koenen from the Lattorian of N. Germany.

Genus ORTHOCHETUS Cossmann, 1889

Genotype (original), *Cerithium leufroyi* Deshayes, EOCENE

7. ORTHOCHETUS CHARLESWORTHI (Prestwich). (Figs. 11, 12)

Cerithium charlesworthi Prestwich, 1854, p. 412, in part.

Prestwich (*loc. cit.*) wrote: "I give this name to a beautifully sculptured *Cerithium*, figured, but not described by Mr. Charlesworth in 1849, amongst some illustrated Barton specimens (card, fig. *f*). At Barton it is an extremely rare species, but it is very common and characteristic at Sheppey and Southend" [in the London Clay]. The card³ is one of a series issued annually from York, to subscribers, by E. Charlesworth: the figure *f* upon it clearly represents a shell which is known to occur very rarely at Barton and not elsewhere. By the reference to a published figure the name *charlesworthi* must be restricted to this Barton species which is distinct from the well-known London Clay fossil which Prestwich had principally in mind when he proposed the name.

The original of the Charlesworth illustration cannot now be found, so a *neotype* is illustrated in fig. 12, B.M., 72022, Barton Beds, Barton, Edwards collection.

The spire forms a very regular elongated cone divided by the prominent, rounded, spiral band adjoining a linear and very inconspicuous suture. Two subordinate spirals divide each whorl into three equal parts. The axial sculpture consists of numerous straight riblets producing a rectangular network as they cross the spirals. Fig. 11, which illustrates the essentials of the aperture, is drawn from a photograph of a complete Barton specimen formerly seen in the Godwin collection. The columella bears a prominent, oblique plication and is then continued into a straight, canaliculated beak. A reference to fig. 12 shows that the plication is partly masked by a narrow, reflected columellar border, with several oblique lines on the outside of the shell.

Cossmann was amply justified in creating a new genus for that remarkable shell *Cerithium leufroyi* and in feeling doubtful of its true position amongst the Cerithidae. Since he could find only two Upper Cretaceous species to associate with it, the present one and the following are welcome additions to our knowledge of the group.

8. ORTHOCHETUS ELONGATUS nov. sp. (Figs. 13, 14, 15)

This familiar but remarkable London Clay fossil has hitherto appeared in published lists and collections as *Cerithium*, *Lovenella* or *Newtoniella charlesworthi*, but, as just explained, that name must be restricted to another species from the Barton Beds.

³ My copy of it formerly belonged to Prestwich.

Holotype.—B.M., G.65549, London Clay, Whetstone, Edwards collection, fig. 14, 30.0 mm. long (incomplete) \times 10.0 mm. max. diameter.

Distribution.—In the London Clay at Southend and Sheppey (common), Holland Cliff (near Clacton), the Highgate district, Haverstock Hill, Primrose Hill, Willesden, Boreham Wood, Hadley, Potters Bar, Whetstone, Whitechurch, Cockfosters (tube railway), Wimbledon, New Malden, Worcester Park, Whitton (near Twickenham), Stanwell reservoir (Staines) and Bracknell. In the London district it is a characteristic fossil of the middle of the London Clay, with a few rare specimens found 100 feet above the base of the formation.

The usually convex whorls of the long, gently tapering spire are crossed by four raised spirals, the front one being sometimes concealed by the preceding whorl. The axial riblets, which are thinner than the spirals, are slightly concave in the direction of growth. These two elements of the sculpture produce a regular rectangular network. The columella bears a strong, oblique plication (fig. 14) which is covered by a reflected columellar border with associated oblique, external lines, as in the preceding species. The variation of this species is illustrated by figs. 13 and 15, representing specimens from the horizon and locality of the holotype, which is the dominant form. In both these the axial riblets are much closer than in the type, while the four spiral bands are differently arranged. In fig. 13 there is an apparent approximation to *O. charlesworthi* but although the front spiral is prominent, there is an almost equal spiral at the rear (adjoining the suture), which is absent from the Barton species. *O. charlesworthi* has a much broader spire than *elongatus* and much straighter riblets.

All the numerous London Clay specimens are filled with pyrites and have broken apertures, but in some cases sufficient is preserved to show that the species is congeneric with *O. charlesworthi* whose true nature is revealed by the unique aperture shown in fig. 11. Without this guide, *O. elongatus* would be taken for an enormous *Cerithiella*.

Genus CERITHIELLA Verrill, 1882

Genotype, *Cerithium metula* Loven, RECENT

[= *Lovenella* Sars, 1878 non Hincks, 1868 : = *Newtoniella* Cossmann, 1893.]

9. CERITHIELLA CLOACINA nov. sp. (Fig. 16)

The specific name alludes to the excavations for sewage works, where the holotype was found.

Holotype.—B.M., G.65540, London Clay, Sewage works at Whitton, near Twickenham, A. G. Davis collection, fig. 16, 13.5 mm. long (incomplete) \times 4.0 mm. max. diameter.

Distribution.—In the middle of the London Clay at Hornsey, Whittton, Brentford, and Stanwell reservoir (Staines); rare.

The whorls of the long, slightly conical spire are traversed by three smooth, spiral bands, one close to the rear suture. While the whorl contour as a whole is convex by the projection of two of the spirals, the three spaces between the bands are distinctly concave and covered with very minute spiral threads. The axial sculpture, seen only by a lens, is of close, fine lines in the concavities between the spirals. A subordinate, fourth spiral is covered by envelopment and appears only on the last whorl. The base of the shell is sharply contracted beyond the sutural line and, in the aperture, the columella ends in an oblique fold next to a very short, twisted canal.

Typically, *Cerithiella* has raised, axial riblets subordinate to the spirals which, generally, are three in number. The minute axial threads of the present species resemble those of the allied genus *Seila* which, however, has very inconspicuous sutures quite unlike the sunken suture line which *cloacina* shares with other species of *Cerithiella*. A similar combination of characters is found in a few Eocene species of the Paris basin, such as *Cerithium textile* Deshayes which Cossmann placed in his *Newtoniella* (= *Cerithiella*) from its general aspect.

10. PSEUDONEPTUNEA CURTA (J. Sowerby). (Fig. 18)

This common and widely distributed London Clay species includes some forms separated by Edwards in his collection, their MS. names appearing in Newton's 1891 List:—

"*Pisania*" *dubia* Edwards MS. for internal casts, usually pyritic. By some peculiar mode of mineralization they often retain distinct traces of the external sculpture, although the substance of the shell has disappeared⁴.

"*Pisania*" *gradata* Edwards MS. non J. Sowerby and "*Pisania*" *sublamellosa* Edwards MS. non Deshayes, for a form of *curta* prevailing in the London Clay of the Hampshire basin. It is narrower than the type, the whorls are more regularly convex and the spire less turreted, while the ribs tend to fade away on the last whorl of adults.

? *Chrysodomus turritus* Edwards MS. for two poor London Clay shells from Potters Bar.

A new light is thrown upon this species by an accidentally fractured specimen (fig. 18) from the lower London Clay of Alum Bay (I.o.W.). In section, the upper part of the shell is seen to have two distinct layers with a space between them filled with spongy material. The inner layer is convex towards the interior of the

⁴ This superposition of the external sculpture upon an internal cast is frequently found in pyritized gasteropoda in the London Clay and is liable to cause misunderstandings of them.

shell so that an internal cast of it would be concave. This peculiar condition disappears towards the penultimate whorl where, however, the inner layer persists as a simple lining of the outer shell. One's first thought is that this is some abnormality of an individual, but it is found in every one of the numerous specimens I have examined. There was no need to section them, for in a sufficient number of this common species the upper part is corroded away so that the concavity of the internal cast can be seen. In some cases the concavity persists upon the penultimate whorl, in others it is confined to the apex but these differences are not associated with any of the varieties of external form, nor are they characteristic of areas or horizons. We can now interpret those strange internal casts from the London Clay (*dubia* Edw. MS.) in which a very convex last whorl is preceded by very concave spire whorls—they are inner moulds of *P. curta*.

11. "FUSINUS" WETHERELLI Wrigley, 1925. (Fig. 19)

When I described this species a complete specimen of it was not known, so a fragmentary paratype was chosen to supplement the holotype by showing the liration inside the outer lip. Recently the excavations for a tube railway extension from Highgate to Finchley have brought to light, from the London Clay, the specimen illustrated by fig. 19. The fracture of this shell is ancient, the parts being held together by a filling and backing of iron pyrites. The lirations inside the outer lip are borne upon a thickening of the shell.

Genus ANCILLA Lamarck, 1799

Genotype (monotypic), *Ancillaria candida* Lamarck, RECENT

12. ANCILLA ATREBATUM nov. sp. (Fig. 21)

The specific name is from the Atrebates who dwelt in the district of the holotype in Roman times.

Holotype.—B.M., G.65543, London Clay, Aldershot, fig. 21, 9.0 mm. long (incomplete) \times 3.25 mm. max. diameter.

Distribution.—Rare in the London Clay at Highgate (probably below the sandy beds), Chalk Farm (tunnel), Fortis Green, Aldershot, Whitton (near Twickenham), Wokingham. Over thirty juveniles in a septarium from the London Clay *Turritella*-bed at Alum Bay seem to belong to this species.

The long narrow shell has a conical spire entirely covered with enamel, the appearance of sutures in fig. 21 arising from a partial decortication. A wide zone in the middle of the last whorl is bare of enamel and bounded in front by two grooves. The growth lines are bent back here with an U-shaped projection at the rear groove, which would appear as a denticle upon the outer lip, if that were

perfect. In the aperture, the columella is twisted, covered with a thick callus and scored in front by several oblique plications. The front of the aperture is widely notched, the increments of this feature being seen externally upon a thickly enamelled zone which has a central groove.

This species resembles *Ancilla arenaria* Cossmann from the Cuisian of the Paris basin and better preserved material from the London Clay may establish an identity. Cossmann placed his *arenaria* in *Sparella* Gray which he used as a section of *Ancilla* having a labial denticle. Since this denticle is also present in *Eburna* it seems to be a family character which does not indicate the close affinity of a section.

12. ELLOBIUM⁵ sp. (Fig. 20)

Eocene and Oligocene Ellobiinae are exceedingly rare in England. Edwards, in 1852, described *Pedipes glaber* from Barton and *Melampus tridentatus* from the Headon beds: both were unique examples and no more have since been found. A defective specimen found in the Lutetian shell-bed at Southampton Dock may belong to this family, but, since all the characters of the aperture are missing, the attribution is doubtful. Recently, in the London Clay at Stanwell reservoir, near Staines, Mr. D. Curry found the shell which is illustrated by fig. 20. It is almost entirely an internal cast in iron pyrites, with a little of the inner layer of the shell remaining but, happily, characteristic columellar plications are preserved which leave no doubt of the affinities of the species. The shell was umbilicated. The cast is strongly compressed in the plane of illustration and this must have been the original form of the shell, for associated pyritous casts of numerous gasteropoda show no trace of compression during fossilization. *Ellobium* is used *sensu lato*, for the internal denticulations of the outer lip are not preserved, so one cannot be sure of its exact genus. This may be *Pythiopsis cimex* (Deshayes), a species of similar size and compression from the French Thanetian and Cuisian deposits.

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See over for figures.

⁵ *Ellobium* Röding, 1789 = *Auricula* Lamarck.

EXPLANATION OF FIGURES

All the figured specimens are in the collections of the Geological department of the British Museum (Natural History). Their registration numbers are given with "B.M." prefixed, when they are not already stated in the text.

- FIG. 1.—*Cuspidaria inflata* (J. de C. Sowerby). [= *C. rostratissima* Edwards MS.] London Clay, Potters Bar. B.M., L.74202. Natural size.
- FIG. 2.—*Cuspidaria inflata* (J. de C. Sowerby). [= *C. lamellosa* Edwards MS.] London Clay, Muswell Hill. B.M., 73067. Thrice natural size.
- FIG. 3.—Diagram of the growth of *Cuspidaria*.
- FIG. 4.—*Cuspidaria inflata* (J. de C. Sowerby). London Clay, Primrose Hill. B.M., L.74203. Natural size.
- FIG. 5.—*Cuspidaria triradiata* nov. sp. Holotype. Thrice natural size.
- FIG. 6.—*Cuspidaria triradiata* nov. sp. Paratype. London Clay, Stanwell reservoir, near Staines. B.M., L.74205, D. Curry collection. Thrice natural size.
- FIG. 7.—*Turbonilla subterranea* nov. sp. Paratype. London Clay, Highgate Wood. B.M., G.65546. Thrice natural size.
- FIG. 8.—*Turbonilla subterranea* nov. sp. Holotype. Thrice natural size.
- FIG. 9.—*Acrilla cymaea* nov. sp. Holotype. Natural size.
- FIG. 10.—*Acrilla wetherelli* (Edwards). Neotype. Natural size.
- FIG. 11.—*Orthochetus charlesworthi* (Prestwich). Barton beds, Barton. Aperture, from a photograph. Natural size.
- FIG. 12.—*Orthochetus charlesworthi* (Prestwich). Neotype. Natural size.
- FIG. 13.—*Orthochetus elongatus* nov. sp. London Clay, Whetstone. B.M., G.65552. Natural size.
- FIG. 14.—*Orthochetus elongatus* nov. sp. Holotype. Natural size.
- FIG. 15.—*Orthochetus elongatus* nov. sp. London Clay, Whetstone. B.M., G.65550. Natural size.
- FIG. 16.—*Cerithiella cloacina* nov. sp. Holotype. Natural size and with the aperture enlarged.
- FIG. 17.—*Mathilda sororcula* nov. sp. Holotype. Thrice natural size.
- FIG. 18.—*Pseudoneptunea curta* (J. Sowerby). Lower London Clay, Alum Bay (I. of Wight). B.M., G.65541. Twice natural size.
- FIG. 19.—"*Fusinus*" *wetherelli* Wrigley. London Clay, Highgate-Finchley tube railway. B.M., G.65542. Natural size.
- FIG. 20.—*Ellobium* sp. London Clay, Stanwell reservoir, near Staines. B.M., G.65544, D. Curry collection. Twice natural size.
- FIG. 21.—*Ancilla atrebatum* nov. sp. Holotype. Thrice natural size.



