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A LIST OF

Type and Figured Specimens

— IN THE —

Geological Collection,

PREPARED BY ALFRED BELL.

CURATOR & SECRETARY:—FRANK WOOLNOUGH. F.R.Met S.

[*Reprinted from the Journal of the Ipswich and District Field Club, Vol. V., 1917.*]

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FOREWORD.

IT is a matter of convenience to Collectors, and to Curators of Museums especially, to know where Type and Figured Specimens are to be found, and as the Ipswich Museum is somewhat rich in these, especially in the local Crag Formation, the following list has been prepared.

The nucleus of the collection, which now numbers many thousands, was "A Fine Collection of Crag Shells," presented in 1847 by the Missis Alexander, of the Goldrood, Ipswich. Additions were subsequently made by Professor Henslow, Mr. Charlesworth, and others, but the largest acquisition came from the late Mr. Edward Packard from 1848 onwards, when nearly all the Suffolk pits were worked for the Phosphatic Nodules, called Coprolites, for the great industry which Messrs. Packard & Co. originated for the manufacture of Artificial Manures for Agricultural purposes. An assidious collector through this period was the Rev. Henry Canham, Rector of Waldringfield, with whom was associated Mr. Alfred Bell (the compiler of this list), and upon the removal of the Rev. Canham to another living in Yorkshire, his entire collection was purchased and presented by Sir Richard Wallace, who was then President of the Museum.

Another liberal contributor was Mr. F. W. Harmer, F.G.S., F.R.Met.S., of Norwich, who has made a special study of the Pliocene Mollusca. Mr. Harmer published in 1914-15 two descriptive volumes, profusely illustrated, supplementing those previously published by Mr. Searles Wood and his son. The system of classification and the nomenclature by Mr. Harmer is that now adopted for the Museum Collection.

FRANK WOOLNOUGH.

A LIST OF TYPE AND FIGURED SPECIMENS

IN THE

GEOLOGICAL GALLERY, IPSWICH MUSEUM.

Prepared by ALFRED BELL; terminology and bibliographic details revised by C. P. CHATWIN, F.R.M.S., Librarian of the Geological Society of London, and P. G. H. BOSWELL, D.Sc., Professor of Geology in the University of Liverpool.

IN addition to a fairly representative general series of geological specimens, the Museum is very rich in examples of local interest, many of them figured or referred to in various memoirs and monographs. A list of these, together with notes on rare, or notable specimens, may be useful to students, and for works of reference hereafter.

ABBREVIATIONS used are as follows:—

A.M.N.H.	-	Annals and Magazine of Natural History, London.
B.M. Cat.	-	Catalogue of Fossil Mammalia in the British Museum, 1885-7.
Brit. Foss. Mam.		History of British Fossil Mammalia and Birds. R. Owen, 1846.
Brit. Assoc. Rep.		Reports of the British Association for the Advancement of Science.
Crag Moll.	-	Crag Mollusca and Supplements, S. V. Wood, Palæontographical Society, London. Vol. I., 1848; Vol. II., 1851; Suppt. I., 1872; Suppt. II., 1879; Suppt. III., 1882.
Geol. Mag.	-	Geological Magazine, London.
Journ. Ips. F.C.	-	Journal of the Ipswich and District Field Club.
Journ. Linn. Soc.		Journal of the Linnean Society, London.
Pl. Vert.	-	Vertebrata of the Pliocene Deposits of Britain. E. T. Newton, Gen. Mem. Geol. Surv. U.K., 1891.
Pl. Moll.	-	Pliocene Mollusca. F.W. Harmer, Palæontographical Society. Part 1, 1914. Part 2, 1915.
Proc. Geol. Assoc.		Proceedings of the Geologists' Association, London.
Proc. Malac. Soc.		Proceedings of the Malacological Society, London.
Q.J.G.S.	-	Quarterly Journal of the Geological Society, London.
Rep. Yorks. Phil. Soc.		Report of the Yorkshire Philosophical Society.

Where no reference is given to figures the specimens are only referred to as being in the Museum Collections, Ipswich.

The earliest reference to the fossils in the Ipswich Museum appears to be in a notice by Edw. Charlesworth, in the Magazine of Natural History, N.S., vol. I., p. 225, 1837: "Notice of the teeth of *Carcharias megalodon* occurring in the Red Crag of Suffolk," wherein the writer says "specimens are also in the Ipswich Museum."

R. Owen, in a paper on Red Crag Mammals, Q.J.G.S., vol. XII., 1856, p. 217, figured several species in the collections of Mr. W. C. Maclean (Woodbridge) and Mr. G. Ransome (Ipswich), amongst them a broken rostrum of a ziphoid whale already figured by the Rev. W. B. Clarke, A.M.N.H. (ii.), vol. VIII., p. 207. Prof. Henslow also supplied Owen with others, one of which, now in the Museum, was afterwards figured in the "British Fossil Mammalia." It would be interesting to know where these specimens are now, and also the source of the many vertebrate remains already in the Museum when the Canham collection was acquired.

CRAG.

Marine Vertebrata.

CETACEA.

Balæna primigenia van Beneden. Right tympanic. **Lydekker,** Q.J.G.S. XLIII. (1887), fig. 1, p. 9. B.M. Cat. V. (1887), p. 21, fig. 8 (woodcut). Red Crag. Suffolk.

B. (Balænula) balænopsis van Beneden. Right tympanic. **Lydekker,** Q.J.G.S. XLIII. (1887), p. 10. Red Crag. Woodbridge.

Megaptera affinis (van Beneden). Right and left tympanics. **E. T. Newton,** Pl. Vert. (1891), p. 69. Red Crag. Suffolk.

M. minuta (van Beneden). Left tympanic. **Lydekker,** Q.J.G.S. XLIII. (1887), p. 11, pl. 2, fig. 5. **E. T. Newton.** Pl. Vert. (1891), pl. 6, fig. 7. B.M. Cat. V. (1887), p. 34. Cor. Crag. Sutton.

Balænoptera definita (Owen). Cervical vert. **Lydekker,** Q.J.G.S. XLIII. (1887), p. 11. **E. T. Newton,** Pl. Vert. (1891), p. 61. Red Crag. Suffolk. Right tympanic. **Lydekker,** Q.J.G.S. XLIII. (1887), p. 11, pl. 2, fig. 3. B.M. Cat. V. (1887), p. 34. Red Crag. Suffolk.

Balænoptera borealina van Beneden. Left tympanic. **Lydekker,** Q.J.G.S. XLIII. (1887). p. 12. B.M. Cat. V. (1887), p. 39. Red Crag. Suffolk.

Cetotherium brevifrons (van Beneden). Axis vertebra and a doubtful tympanic. **Lydekker,** Q.J.G.S. XLIII. (1887), p. 12. B.M. Cat. V. (1887), p. 46. Red Crag.

Homocetus villersi Du Bus. Teeth (probably). **Lydekker,** Q.J.G.S. XLIII. (1887), p. 14. Red Crag. Suffolk.

Hyperoodon (? rostratus Müller). Right periotic. **Lydekker,** Q.J.G.S. XLIII. (1887), p. 14, pl. 2, fig. 6. **E. T. Newton.** Pl. Vert. (1891), p. 69, pl. 8, fig. 4. B.M. Cat. V. (1887), p. 63. Red Crag. Suffolk.

Choneziphius packardi Lankester. Rostrum, Q.J.G.S. XXVI. (1870), p. 502, pl. 33, figs. 1-4. Red Crag. Shotley. **TYPE.**

Mesoplodon floris E. T. Newton. Rostrum, Q.J.G.S. XLVI. (1890), p. 448, pl. 18, fig. 7. Red Crag. Foxhall. **TYPE.**

M. floweri Flower ex Canham MS. **Flower,** Cat. Vert. Coll. Surg., Lond. (1884), pt. 2, p. 562.

M. longirostris ? Cuvier. Red Crag. Walton-on-the-Naze.

Squalodon antwerpiensis van Beneden. Molar teeth. **Lydekker,** Q.J.G.S. XLIII. (1887), p. 15. **Lankester,** Q.J.G.S. XXVI. (1870), p. 512.

Orca citoniensis Capellini. Tooth. **Lydekker,** Q.J.G.S. XLIII. (1887), p. 16, pl. 2, fig. 10. **E. T. Newton,** Pl. Vert. (1891), p. 76, pl. 7, fig. 4. B.M. Cat. V. (1887), p. 80. Red Crag. Suffolk.

[There is in the Collection a large series of cetacean teeth, rostra, otoliths and bones, including some probably unrecorded as British species.]

CARNIVORA.

Trichechus (Trichecodon) huxleyi Lankester. Tusk. Journ. Linn. Soc. (Zool.) XV. (1880), p. 144; and Trans. Linn. Soc. II. (1881), p. 213. Red Crag. Trimley. **TYPE.**

SIRENIA.

Halitherium canhami Flower. Cranium. Q.J.G.S. XXX. (1874), p. 1, pl. 1. B.M. Cat. V. (1887), p. 7. Red Crag. Foxhall. **TYPE.**

TERRESTRIAL VERTEBRATA.

RODENTIA.

Castor veterior Lankester. Incisor. **E. T. Newton,** Pl. Vert. (1891), p. 50, pl. 5, fig. 13, 14, 15. Red Crag. Sutton.

CARNIVORA.

Felis pardoides Owen. Lower right molar. Brit. Foss. Mam. (1846), p. 169, fig. 66. **E. T. Newton,** Pl. Vert. (1891), p. 5, pl. 1, fig. 1. Red Crag. Newbourn. **TYPE.**

Hyaena striata Zimmerman. Right upper carnassial. A. & R. Bell, Proc. Geol. Assoc. (1871), Vol. II., p. 185. **Lydekker,** Q.J.G.S. XLII. (1886), p. 364, fig. 1. B.M. Cat. V. (1887), p. 315, fig. 49. **E. T. Newton,** Pl. Vert. (1891), p. 7, pl. 1, fig. 9, 10. Red Crag. Trimley St. Mary.

Hyaenarctos sivalensis Falconer & Cautley. Right upper pre-molar. **Flower,** Q.J.G.S. XXXIII. (1877), p. 534 (woodcut). **Lydekker,** B.M. Cat. I. (1885), p. 155, fig. 22. Red Crag. Waldringfield. **TYPE.**

Lutra sivalensis (Falconer & Cautley). Portion of right ramus of lower jaw. **Lydekker,** Palæontologia Indica, ser. 10, Vol. II. (1884), p. 195, pl. 45, fig. 3. Miocene. Siwalik Hills, India.

UNGULATA.

Cervulus dicranoceros Kaup. Portion of antler. **E. T. Newton,** Pl. Vert. (1891), p. 24, pl. 4, fig. 9. Red Crag. Sutton.

[The Cervidæ, including *Cervus suttonensis* Boyd Dawkins, and others, are well represented by portions of antlers and teeth.]

Coryphodon eocænus? Owen. **W. H. Flower,** Q.J.G.S. XXX. (1874), p. 6, **E. T. Newton,** Pl. Vert. (1891), p. 41. Nodule bed.

Elephas meridionalis Nesti. Part of pre-molar. **E. T. Newton,** Pl. Vert. (1891), p. 46. Red Crag. Falkenham.

Mastodon arvernensis Croizet & Jobert. Two penultimate milk teeth. **Lydekker,** Q.J.G.S. XLII. (1886), p. 365. B.M. Cat. IV. (1886), p. 54.

M. longirostris Kaup. Lower pre-molar. **Lydekker,** Q.J.G.S. XLII. (1886), p. 365. Fragment of molar. **Lankester,** Q.J.G.S. XXVI. (1870), p. 509, pl. 34, fig. 4. Owen, in Q.J.G.S. XII. (1856), p. 223, also refers to the crown of a molar and an atlas vertebra of this species in the Museum.

Rhinoceros incisivus Kaup. Upper pre-molar. **E. T. Newton,** Pl. Vert. (1891), p. 38, pl. 5, fig. 2. Red Crag. ? Foxhall.

R. schleiermacheri Kaup. Upper pre-molar. **E. T. Newton,** Pl. Vert. (1891), p. 39, pl. 5, fig. 4. Red Crag. Waldringfield.

Sus antiquus Kaup. Last upper molar; ditto lower molar. **E. T. Newton,** Pl. Vert. (1891), p. 35, pl. 3, figs. 11, 12. B.M. Cat. II. (1885), p. 268. **Lydekker,** Q.J.G.S. XLII. (1886), p. 366.

Sus sp. Incisor. **E. T. Newton,** Pl. Vert. (1891), p. 35. Red Crag. Suffolk.

Tapirus priscus Kaup. Six molar teeth in Canham Collection. **Lankester,** Q.J.G.S. XXVI. (1870), p. 510.

[The collection contains a very good series of mammalian remains from the Upper Eocene phosphorites of Southern France, the Miocene of the Siwalik Hills, India, and of local bones and teeth of Mammoth, Rhinoceros, and others from the Pleistocene of the Orwell Valley and Stoke Tunnel.]

AVES.

Diomedea sp. Lydekker. Right metatarsus and phalangeal bone. Q.J.G.S. XLII. (1886), p. 366, fig. 2, B.M. Cat. (1891), Fossil Birds, p. 190, fig. 42 (as *D. anglica*). **E. T. Newton,** Pl. Vert. (1891), p. 85, pl. 9, figs. 2, 3 (as *Diomedea* sp.). Sand above Red Crag. Foxhall. **TYPE.**

Mr. Gerrard, of the British Museum, assigned the specimens to the living bird *Diomedea exulans*.

A fine molar of *Rhinoceros* found with these bones was in the Canham Collection. The late W. Davies, of the British Museum, referred it to *R. etruscus*. The sands, I think, are later than the decalcified Red Crag sands, and are of Icenian or Chillesford age. The specimen was referred to also by Lydekker, Q.J.G.S. XLII. (1886), p. 367.

PISCES.

The Collection contains a good series of Fish remains from the London Clay, including some fine palates and teeth of *Gyrodus*, *Phyllodus*, *Pisodus*, *Pycnodus*, *Sphærodus*, *Edaphodon*, *Myliobatis*; and among the sharks, *Carcharodon*, *Cetorhinus* and *Notidanus*, derived from the nodule bed at the base of the Crag.

INVERTEBRATA.

ARTHROPODA.

CRUSTACEA.

The Collection is not very rich in this group. The most important is the perfect carapace of a Spider Crab (*Maia*), and some undetermined fragments and chelæ of perhaps *Lithodes*, and *Pagurus* from Ramsholt. The Common Lobster (*Homarus vulgaris*) should be looked for, as Major Moore, of Felixstowe, found fragments at Sutton; and a good example is

preserved in the Moot Hall, Aldeburgh, from the Coralline Crag of that locality.

Among the Cirripedia are some fine groups of *Balanus concavus* Darwin, *Coronula barbara* Darwin, and a whale barnacle from the Red Crag at Waldringfield, that may be *C. diadema* Parkinson. At present it is unique in the Crag.

ECHINODERMA.

ECHINOIDEA.

Temnechinus woodi (Agassiz).

E. Forbes, in Tertiary Echinodermata (Pal. Soc., 1852), p. 8, refers, without figuring, to a form of *Temnechinus* "presenting the general shape of *T. excavatus*, with most of the characters of *T. melocactus*....." A. Bell, Rep. York Phil. Soc. (1897), p. 8. "The Ipswich Mus. Coll. contains several fine examples. Should they ultimately prove to be distinct, they might be known as *T. forbesii*." Coralline Crag. Ramsholt.

Spatangus regina Gray, **E. Forbes,** Tertiary Echin. (Pal. Soc., 1852), p. 14, pl. 2, fig. 2. Coralline Crag. Ramsholt. See also J. W. Gregory, Proc. Geol. Assoc. XII. (1891), p. 17.

Echinus esculentus Linné. J. W. Gregory, Proc. Geol. Assoc. XII. (1891), p. 33. Cor. Crag. Near Orford.

Strongylocentrotus cotteaui Desor. A. Bell. York. Phil. Soc. (1897), p. 9.

[A fine specimen from Aldeburgh measures 33 mm. in height and 55 mm. in breadth. A smaller one from Orford is in the Ipswich collection. It is a very scarce species.]

[I would here refer to a very perfect specimen of a crag echinoderm, *Clypeaster*, allied to *C. marginata*, 114 mm. × 114 mm. × 5 mm. in dimensions, found in the large Crag pit at Aldeburgh, and now in the Moot Hall. At present it is unique.]

COELENTERA.

ANTHOZOA.

Cryptangia woodi Edwards and Haime. One of the finest specimens of this scarce coral, obtained by Canham from the Coralline Crag, Ramsholt, is notable on account of its size and the many corallites embedded in the porous mass. Another coral, a *Balanophyllia*, is remarkable for its pedunculate growth, as usually the corals of this group have spreading bases.

MOLLUSCA.

GASTROPODA.

Helix hortensis Müller. **F. W. Harmer,** Pl. Moll. (1914), p. 16, pl. 1, fig. 4. Red Crag. Butley.

Pyramidula rysa (S. V. Wood). **Kennard & Woodward,** Proc. Malac. Soc. III. (1890), p. 190. Red Crag. Waldringfield.

Cochlicopa (*Zua*) *lubrica* (Müller). **S. V. Wood,** Crag Moll. Suppt. I. (1872), p. 187. II., p. 38, pl. 4, fig. 10. **F. W. Harmer,** Pl. Moll. (1914), p. 19. Red Crag. Butley.

Pupa muscorum Linné. **Kennard & Woodward,** Proc. Malac. Soc. III. (1890), p. 194. Red Crag. Butley.

Succinea putris Linné. **Kennard & Woodward,** Proc. Malac. Soc. III. (1890), p. 195. Red Crag. Butley.

Melampus fusiformis, var. *elongata* S. V. Wood. Crag Moll. Suppt. II. (1879), p. 38, pl. 3, fig. 15. Red Crag. Butley. **TYPE.**

Voluta luctatrix Solander. **S. V. Wood,** Crag Moll. Suppt. I. (1872), p. 7, pl. 6, fig. 14. Red Crag. Waldringfield.

Voluta nodosa? J. Sowerby. **S. V. Wood,** *op. cit.*, p. 6, pl. 5, fig. 6. Red Crag. Waldringfield.

Mitra fusiformis (Brocchi). **S. V. Wood,** *op. cit.*, p. 8, pl. 5, fig. 3. Red Crag. Waldringfield.

Terebra canalis S. V. Wood. **S. V. Wood,** *op. cit.*, p. 8, pl. 10, fig. 1. Red Crag. Waldringfield.

Semicassis (*Cassis*) *saburon* (Bruguière). **S. V. Wood,** *op. cit.*, p. 10, pl. 6, fig. 1. Red Crag. Waldringfield.

Cassidaria bicatenata J. Sowerby. **S. V. Wood,** Crag Moll. Suppt. I. (1872), p. 11, pl. 6, fig. 2. Red Crag. Waldringfield.

C. bicatenata J. Sowerby var. *canhami* A. Bell. A.M.N.H. (4) VII. (1871), p. 356. **F. W. Harmer,** Pl. Moll. (1914), p. 59, pl. 2, fig. 14. Red Crag. Waldringfield. **TYPE.**

Nassa consociata S. V. Wood. Crag Moll. Suppt. II. (1879), p. 4, pl. 4, fig. 13. Red Crag. Waldringfield. **TYPE.**

N. reticosa (J. Sowerby) var. *lineata* F. W. Harmer. Pl. Moll. (1914), p. 63, pl. 3, fig. 17, 18. Red Crag. Butley. **TYPE.**

N. reticosa var. *cancellata* F. W. Harmer. *op. cit.* pl. 3, fig. 19. Red Crag. Butley. **TYPE.**

Nassa limata (Chemnitz). **S. V. Wood,** Crag Moll. Suppt. II. (1879), p. 2, pl. 1, fig. 6. (as *Nassa prismatica.*) Cor. Crag. Sutton.

[Mr. Harmer thinks the shell figured by Wood is *Nassa limata* (Chemnitz), and refers it to his figure in Pl. Moll., p. 69, pl. 4, fig. 1, 2.]

Nassa lamellilabra Nyst var. *elegantula* S. V. Wood, MS.. **F. W. Harmer,** Pl. Moll. (1914), p. 85, pl. 4, fig. 14-16. **S. V. Wood,** Crag Moll., Suppt. I. (1872), p. 13, pl. 6, fig. 7, (as *Nassa pulchella* Andrzejowski.) Cor. Crag. Gedgrave. **TYPE.**

Desmoulea conglobata (Brocchi). **S. V. Wood,** Crag Moll. Suppt. I. (1872), p. 15; Q.J.G.S. XXXIII. (1877), p. 119. Red Crag. Sutton, Waldringfield.

Buccinum undatum Linné, var. *flexuosa* Jeffreys. **F. W. Harmer,** Pl. Moll. (1914), p. 93, pl. 6., fig. 5. Red Crag. Waldringfield.

B. undatum var. *crassa* King. **F. W. Harmer,** *op. cit.* p. 94, pl. 7, fig. 1, 2. Red Crag. Waldringfield.

Liomesus (*Buccinum*) *tomlinei* (S. V. Wood). Crag Moll. Suppt. I. (1872), p. 175, addendum plate, fig. 11. Red Crag. Waldringfield. **TYPE.**

Liomesus (*Buccinum*) *nudum* (S. V. Wood). Crag Moll. Suppt. II. (1879), p. 1, pl. 1, fig. 1. Cor. Crag. Sutton. **TYPE.**

Murex canhami S. V. Wood. Crag Moll. Suppt. I. (1872), p. 30, pl. 7, fig. 14. Red Crag. Waldringfield. **TYPE.**

Purpura tetragona (J. Sowerby). **F. W. Harmer,** Pl. Moll. (1914), p. 116, pl. 9, fig. 6. Cor. Crag. Ramsholt.

Triton heptagonum (Brocchi). **F. W. Harmer,** *op. cit.* p. 120, pl. 12, fig. 6, 7. Cor. Crag. Boyton. Red Crag. Foxhall.

Ocinebra (*Murex*) *tortuosa* (J. Sowerby), var. *boytonensis* F. W. Harmer. *op. cit.* p. 125, pl. 12, fig. 8. Red Crag. Boyton. **TYPE.**

Anomalosipho belli F. W. Harmer. *op. cit.* p. 151, pl. 15, fig. 13. Red Crag. Butley. **TYPE.**

Beringius turtoni (Bean). **S. V. Wood,** Crag Moll. Suppt. I. (1872), p. 22, pl. 1, fig. 11. **F. W. Harmer,** Pl. Moll. (1914), p. 154, pl. 15, fig. 3. Red Crag. Waldringfield.

Beringius pseudo-turtoni (S. V. Wood). **S. V. Wood,** Crag Moll. Suppt. II. (1879), p. 8, pl. 2, fig. 1, pl. 4, fig. 1. Red Crag. Waldringfield.

Volutopsis largillierti (Petit de la Saussaye). **S. V. Wood,** Crag Moll. Suppt. I. (1872), p. 21, pl. 5, fig. 14* (as *Trophon norvegicus* Chemnitz). **F. W. Harmer,** Pl. Moll. (1914), p. 153, pl. 15, fig. 2. Red Crag. Waldringfield

Neptunea despecta Linné, var. *subantiquata* Maton & Rackett. **F. W. Harmer,** Pl. Moll. (1914), p. 163, pl. 25, fig. 2. Icenian Crag. Brandeston.

Atractodon elegans (Charlesworth). **S. V. Wood,** Crag Moll. Suppt. I. (1872), p. 22, pl. 2, fig. 6. Red Crag. Felixstowe.

Another example in the Canham Collection is in the matrix. This is a true Crag shell, most of the other specimens having been washed ashore.

A shell from the Coralline Crag is figured by Wood. Suppt. I., add. pl., fig. 13, under this name, but is certainly not this species. Unfortunately it is now rapidly disintegrating. Cor. Crag. Sutton.

Borsonia suffolciensis (A. Bell, MS.). F. W. Harmer *non* Bellardi. **S. V. Wood,** Crag Moll. Suppt. II. (1879), p. 21, pl. 3, fig. 1 [as *Borsonia prima* A. Bell]. **F. W. Harmer,** Pl. Moll. (1915), p. 214.

Pseudotoma intorta (Brocchi) var. *morreni* de Koninck. **S. V. Wood,** Crag Moll. Suppt. II. (1879), p. 16, pl. 2, fig. 6. **F. W. Harmer,** Pl. Moll. (1915), p. 213, pl. 26., fig. 16. Red Crag. Waldringfield.

P. intorta var. *nodifera* Lamarck. **S. V. Wood,** Crag Moll. Suppt. I. (1872), p. 33, pl. 7, fig. 6. Red Crag. Waldringfield.

Clavatula interrupta (Brocchi). **S. V. Wood,** *op. cit.*, p. 32, pl. 5, fig. 1. **F. W. Harmer,** Pl. Moll. (1915), p. 210, pl. 26, fig. 20. Red Crag. Waldringfield.

Raphitoma senilis (S. V. Wood). Crag Moll. Suppt. I. (1872), p. 43, pl. 5, fig. 5, and another in Suppt. II. (1879), p. 20, pl. 3, fig. 2. **F. W. Harmer,** Pl. Moll. (1915), p. 264, pl. 30, fig. 3. Red Crag. Waldringfield. **TYPE.**

Drillia sigmoidea (Bronn) var. *pliomagna* Sacco. **F. W. Harmer,** Pl. Moll. (1915), p. 226, pl. 27, fig. 26. Red Crag. Waldringfield.

Drillia icenorum (S. V. Wood) var. *elongata* F. W. Harmer. **S. V. Wood,** Crag Moll. Suppt. I. (1872), p. 32, pl. 6, fig. 4 (as *Pleurotoma coronata*? Bellardi). **F. W. Harmer,** Pl. Moll. (1915), p. 221. pl. 27, fig. 18. Red Crag. Waldringfield. **TYPE.**

Drillia incrassata (Dujardin) var. *miominor* (?) Sacco. **F. W. Harmer,** *op. cit.* p. 223, pl. 27, fig. 30. Red Crag. Waldringfield.

Pleurotoma oblonga Ren. Wood refers an example in the Canham Collection to this. Crag Moll. Suppt. I. (1872), p. 180, but does not figure it. Red Crag. Waldringfield.

[It may be the same species as the *Drillia brocchii* (Bonelli), figured in Pl. Moll. (1915), p. 219, pl. 27, fig. 20, 21.]

Bela gigantea (Mörch). **A. Bell,** A.M.N.H. (4) VII., p. 357 (1871). as *Pleurotoma violacea* Mighels var. *gigantea*. **S. V. Wood,** Crag Moll. Suppt. I. (1872), p. 45, pl. 6, fig. 9 (as *Pleurotoma arctica* Adams). Red Crag. Waldringfield.

[A perfect specimen from the York Museum has been figured by Mr. F. W. Harmer, Pl. Moll. (1915), pl. 32, fig. 24.]

Bela pyramidalis (Ström). **F. W. Harmer,** Pl. Moll. (1915), p. 295, pl. 32, fig. 1, 2. Red Crag. Waldringfield and Butley.

Bela trevelyana (Turton). **F. W. Harmer,** Pl. Moll. (1915), p. 294, pl. 32, fig. 32. Red Crag. Butley.

Cancellaria umbilicaris? (Brocchi). **S. V. Wood,** Crag Moll. Suppt. I. (1872), p. 182, add. pl., fig. 10. Red Crag. Waldringfield.

Solarium vagum S. V. Wood. **S. V. Wood,** Crag Moll. Suppt. I. (1872), p. 85, pl. 7, fig. 29. Red Crag. Waldringfield.

Calliostoma conuloides (Lamarck) var. *laevigata* J. Sowerby. **S. V. Wood,** Crag Moll. Suppt. II. (1879), p. 34, pl. 4, fig. 20 (as *Trochus zizyphinus* Linné, var.) Cor. Crag. Sutton.

Dentalium entalis Linné. **S. V. Wood,** Crag Moll. Suppt. I. (1872), p. 187, add. pl., fig. 12. Cor. Crag. Near Orford.

LAMELLIBRANCHIA.

Pecten westendorpianus Nyst. **S. V. Wood,** Crag Moll. (1848–51), p. 323. (*Pecten maximus* Linné var. *larvatus* Wood), and Suppt. I. (1872), p. 106, pl. 8, fig. 1. Red Crag. Waldringfield.

Pecten (*Peplum*) *septemradiatus* Chemnitz var. *dumasi* Payraudeau. **A. Bell,** A.M.N.H., p. 353 (1871). **S. V. Wood,** Crag Moll. Suppt. I. (1872), p. 106. Red Crag. Foxhall.

Ostrea princeps S. V. Wood. Crag Moll. Vol. II. (1851), p. 17. Red Crag.

The Ipswich Collection contains several forms of the *princeps* group, which are now under examination, in addition to some other examples of this group.

Mytilus edulis Linné var. *galloprovincialis* Lamarck. **S. V. Wood,** Crag Moll. Suppt. II. (1879), p. 42, pl. 6, fig. 9a. Red Crag. Sutton.

Pectunculus pilosus Linné. **S. V. Wood,** Crag Moll. Suppt. I. (1872), p. 116. Red Crag. Waldringfield.

Chama gryphoides Linné var. *gryphina* Lamarck. **S. V. Wood,** Crag Moll. Suppt. II. (1879), p. 45, pl. 5, fig. 1. Red Crag, Waldringfield.

Pholas (Zirfæa) brevis S. V. Wood. **S. V. Wood,** Crag Moll. Suppt. I. (1872), p. 164, pl. 1, fig. 24. Red Crag. Waldringfield.

Pholas (Zirfæa) intermedea S. V. Wood. Crag Moll. Suppt. II. (1879), p. 48, pl. 5, fig. 2. Red Crag. Waldringfield. **TYPE.**

POST EOCENE.

Suffolk Box-Stones.

MOLLUSCA.

Rostellaria dentata Grateloup. **Lankester,** Country Life, Dec. 26th, 1914, woodcut.

Semicassis saburon (Bruguière). **Lankester,** Q.J.G.S. XXVI. (1870), p. 502, pl. 34, fig. 8.

Semicassis sulcosa (Lamarck). **Lankester,** Q.J.G.S. XXVI. (1870), p. 502, pl. 34, fig. 9.

Conus dujardini Deshayes. **Lankester,** Q.J.G.S. XXVI. (1870), p. 502, pl. 34, fig. 5.

Voluta siemensi? Boll. **Lankester,** Q.J.G.S. XXVI. (1870), p. 532, pl. 34, fig. 6, as *auris-leporis*.

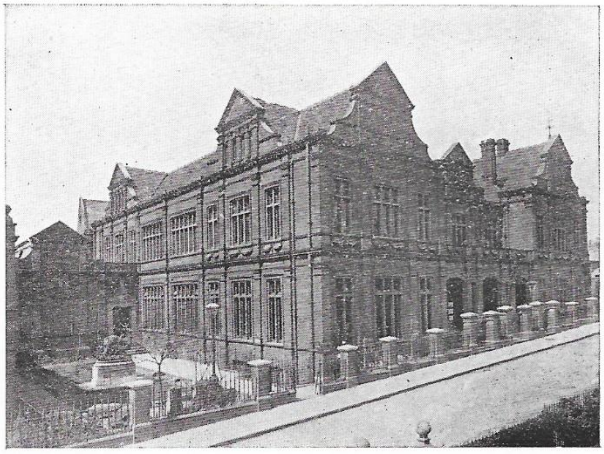
Sipho major A. Bell. Journ. Ips. F.C. III. (1911). p. 9. **TYPE.**

Cardium cf. *erinaceum* Brongniart. **Lankester,** Country Life, Dec. 26th, 1914, woodcut.

Cardium subdecorticatum A. Bell. Journ. Ips. F.C., vol. III. (1911), p. 9. **TYPE.**

Isocardia lunulata Nyst. **Lankester,** Q.J.G.S. XXVI. (1870), p. 502, pl. 34, fig. 10.

Venus (Ventricola) multilamella Lamarck var. **Lankester,** Q J.G S. XXVI. (1870), p. 502, pl. 34, fig. 7 (as a large *Venus*).



Museum Buildings, High Street.