Catalogue of the Cretaceous fossils in the Brighton Museum, presented by Henry Willett, Esq.

Contributors

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CATALOGUE

OF THE

CRETACEOUS FOSSILS

IN THE

BRIGHTON MUSEUM.

PRESENTED BY

HENRY WILLETT, ESQ.

BRIGHTON:
WILLIAM J. SMITH, 43, NORTH STREET.
1871.

PREFACE.

This Collection of Sussex Chalk Fossils is the result of the loving labour of the leisure hours of ten years.

My love of Natural History was directed into this channel through the casual acquaintance (when quite a boy) of the late GIDEON MANTELL, ESQ., F.G.S., LL.D. When, in 1841, I came to live at Brighton, I found that his valuable and interesting Collection had been removed to the British Museum.

While the great Natural Storehouse of extinct Animal Forms still remained, the Fossils daily discovered in the large Chalk Quarries round Lewes were destroyed as worthless, because there was no one to care for them.

Regretting that so many objects of beauty and interest should not be redeemed from destruction, I devoted my pocket-money and spare time to the amusement of (1) Inducing the workmen to observe and lay aside for me everything the chalk contained that was not a flint;

and (2) To collecting and developing the treasures thus obtained.

I use the word "treasures" advisedly ; for had I been so inclined, I could have disposed of the Collection for a considerably larger sum of money than it had cost me ; but I preferred to present it to the Museum of this Town, in the hope that it would not only be a Local Record of Fossil Remains of the neighbourhood, but that its Exhibition might induce other Young Men to direct some of their spare hours in the intervals of active business to its study, and thereby to share the same pleasures, and find the same advantages in the pursuit, that I have done.

These advantages are neither small nor few ; for while I admit, on a casual glance, there is nothing very attractive in a chalk fossil, yet the delight of discovering some *new* relic of Creative Power hitherto unknown to Science is as great to the discoverer as that of a new planet or comet is to the astronomer ; while it surpasses the joy of a gold-digger at finding a "nugget," inasmuch as he has no fear that any one will steal it.

The pleasure of a Collector in meeting with a fossil fish in a chalk stone, is not surpassed by that of an angler who has hooked a living one ; and the enjoyment of developing the form of a beautiful fossil,—such as a Pentacrinite or Echinus,—from its entombing chalk matrix, is similar to what an artist or sculptor experiences as he sees his

conception grow daily into visible reality ; while, to crown all, there are no sad regrets at the amusement having caused unnecessary suffering to the weaker objects in Creation, none of which have cause to lament that their brief day of life has been prematurely shortened.

The pursuit developed in me a habit of early rising ; it blessed me with the health which usually follows vigorous exercise in the open air ; and it made me acquainted with men of culture and refinement, who, in many instances, have grown to be firm and fast friends.

One word of caution I must give to young Collectors. There is a danger lest, in the greed of collecting, there should grow up a jealousy of those who have been more successful : and a watch must be set against the folly of fancying that, because you have fortunately discovered a new fossil, you may assume airs of personal importance as if you were its creator. But these are weaknesses which belong to human nature, and are not peculiar to the study of this or any other science.

To be a happy and successful Student, one must be *humble* and *reverent;* and if the inspection of this Collection should help one young man to find his pleasure, and to spend his spare time in this direction, rather than to waste it in billiards or idleness, it will not have been formed nor presented in vain.

I should be deficient in due recognition of kind and

patient assistance, if I omitted to thank (for the aid rendered in the nomenclature and arrangement of this Catalogue) my friend, WILLIAM BOYD DAWKINS, ESQ., F.G.S., the Professor of Owen's College, Manchester, whose position is a proof of what may be done by any one who can combine high personal character with persevering and intelligent effort. Without his aid the Catalogue could not have attained its present form and accuracy.

HENRY WILLETT.

Arnold House,

Brighton,

January, 1871.

NOTICE.

The Fossils are arranged according to the System laid down in PROFESSOR OWEN'S "Palæontology."

The following Abridgements have been used throughout :—

u. c., upper chalk.
m. c., middle chalk.
l. c., lower chalk.
c. m., chalk marl.

Underneath the Table Cases are specimens of the existing Species, to illustrate the affinities of their fossil analogues.

In Case 12 there is a series of Minerals from the Chalk, and a small collection of the objects around which Flint is generally accumulated.

CATALOGUE

OF

CRETACEOUS FOSSILS.

Case 1.

TORTOISES AND TURTLES.

Province—Vertebrata.

Class—Reptilia.

Order—Chelonia.

Character—Trunk ribs broad, flat, united by sutures, and forming with the vertebræ and sternum a stout bony case, into which the head, tail, and limbs can usually be withdrawn; no teeth; external nostril single (Owen).

Range—From the Portlandian epoch to the present day.

1 Chelone c. m., *Clayton*

Sp. foss. marine turtle; fragment of scapulo-clavicle, carapace, and rib.

2 Chelone c. m., *Clayton*

Sp. foss. marine turtle; scapulo-clavicle.

3 Chelone l. c., *Maidstone Taylor Coll.*

Sp. foss. marine turtle; fragment of carapace.

4 Chelone c. m., *Clayton*

Sp. foss. marine turtle; median plates of carapace.

5 Chelone c. m., *Clayton*

Sp. foss. marine turtle; anterior portion of plastron.

6 Chelone c. m., *Clayton*

Sp. foss. marine turtle; vertebra.

7 Chelone

Sp. foss. marine turtle; ilium, hip-bone.

8 Chelone

Sp. foss. marine turtle; lower mandible.

LIZARDS.

Order—Lacertilia.

Character—Vertebræ, with centra hollow in front, and with a single transverse process on each side: ribs with one head only; sacral vertebræ not more than two; external nostrils two (Owen.)

Range—From the Triassic Age to the present day.

9 Coniosaurus crassidens (Owen) c. m., *Clayton*

Sp. foss. thick-toothed lizard; right ramus of lower jaw, with vertebræ; type specimen.

10 Coniosaurus crassidens (Owen) m. c., *Falmer*

Sp. foss. thick-toothed lizard; vertebræ.

11 Coniosaurus crassidens (Owen) c. m., *Clayton*

Sp. foss. thick-toothed lizard; twelve consecutive dorsal vertebræ; type of order.

12 Mosasaurus gracilis (Owen) u. c., *Offham*

Sp. foss. slender-tooth marine lizard; part of lower jaw, with teeth; type of order.

13 Mosasaurus gracilis (Owen) u. c., *Offham*

Sp. foss. slender-toothed marine lizard; body of lumbar vertebra; type of order.

14 Mosasaurus gracilis (Owen) u. c., *Offham*

Sp. foss. slender-toothed marine lizard; fragments of vertebræ, one of which, a lumbar vertebra, is a type of order.

15 l. c., *Southeram*

New sp. foss. marine reptile; fragment of dorsal vertebra; closely allied in its form to the preceding.

16 l. c., *Clayton*

Sp. foss. marine reptile; coracoid bone.

17 Leidon anceps (Owen) u. c., *Brighton*

Sp. foss. smooth-toothed giant lizard; type tooth of order.

18 Leidon anseps (Owen) u. c., *Norwich*

Sp. foss. smooth-toothed giant lizard; teeth.

WINGED LIZARDS.

Order—Pterosauria.

Character—The two forelegs adapted for flight, by the elongation of the antibrachium and fifth digit; vertebræ with centra hollowed in front; cervicals not more than eight; sacrum small; head large; jaws long, and armed with teeth; bones hollow, and traversed by air as in birds (Owen).

Range—From Lias to Chalk.

19 Pterodactylus Cuvieri (?) c. m., *Newtimber*

Sp. foss. gigantic flying reptile; portion of shaft of radius.

20 Pterodactylus Cuvieri (?) c. m., *Newtimber*

Sp. foss. gigantic flying reptile; portion of wing-bone, showing the pneumatic foramen for the admission of hot-air into the cavity of the bone.

21 Pterodactylus Cuvieri (?) c. m., *Newtimber*

Sp. foss. gigantic flying reptile; fragment of bone, shewing the dense texture and thinness of the bone.

FINNED LIZARDS.

Order—Sauropterygia (Owen).

Character—Teeth simple, in distinct sockets of premaxillary and premandibular bones; maxillaries larger than premaxillaries; limbs adapted for swimming, and possessed of five digits only.

Range—From Trias to Chalk.

22 Polyptychodon interruptus (Owen) m. c., *Lewes*

Sp. foss. great marine reptile, with folds on its teeth.

23 Polyptychodon interruptus (Owen)

Sp. foss. great marine reptile, with folds on its teeth ; fragments of three teeth.

24 Polyptychodon interruptus (Owen) m. c., *Falmer*

Sp. foss. great marine reptile, with folds on its teeth ; tooth of enormous size.

25 Polyptychodon interruptus (Owen) l. c., *Glynde*

Sp. foss. tooth different in many respects from the preceding.

26 Polyptychodon interruptus (Owen) l. c., *Glynde*

Sp. foss. tooth.

27 Polyptychodon continuus (Owen) l. c., *Houghton Pit*

Sp. foss. great marine reptile, with folds on its teeth ; a tooth.

28 Plesiosaurus l. c., *Southeram*, *Lewes*

Sp. foss. long-necked marine lizard ; vertebra.

29 Plesiosaurus l. c., *Southeram*, *Lewes*

Sp. foss. long-necked marine lizard ; vertebra.

30 Plesiosaurus figured by Prof. (Owen) m. c., *Sedlescomb*

Sp. foss. long-necked marine lizard ; tooth.

31 Plesiosaurus (?) m. c., *Malling*

Sp. foss. long-necked marine lizard ; fragment of bone.

32 Plesiosaurus (?) l. c., *Clayton*

Sp. foss. long-necked marine lizard ; fragment of bone.

FISH-FINNED REPTILES.

Order—Icthyopterygia.

Character—Two nostrils in front of the orbits, which are very large, and contain sclerotic plates ; limbs natatory, with more than five digits ; teeth implanted in a common alveolar groove.

Range—From Trias to Chalk.

33 Icthyosaurus campylodon (Owen) l. c., *Dover*, *Kent*

Short-necked marine lizard ; teeth.

34 Icthyosaurus campylodon (Owen) l. c., *Dover*

Short-necked marine lizard ; teeth.

35 Icthyosaurus campylodon (Owen) l. c., *Dover*

Short-necked marine lizard ; vertebra.

36 Icthyosaurus campylodon (Owen) l. c., *Dover*

Short-necked marine lizard ; vertebræ and ribs.

Case 2a.

HARD-FINNED FISHES.

Order—Acanthopteri.

Character—Skeleton, ossified ; fins, with one or more of the first rays without joints, or inflexible ; ventral fins, generally beneath or in advance of the pectorals ; swim-bladder without air-duct.

Range—

37 Pomognathus eupterygius (Ag) l. c., *Southeram*, *Lewes*

Two fishes, preserved head to head, one of which has lost the latter half of its body ; type of order.

38 Beryx radians (Ag) c. m., *Glynde*

A perfect specimen ; the inflexible anterior spines of the dorsal fin and the posterior jointed ones are beautifully preserved, and are eminently typical of the order.

39 Beryx radians (Ag) c. m., *Southeram*

Anterior half of body.

40 Beryx radians (Ag)

Portion of the body, and cast.

41 Beryx radians (Ag) c. l., *Glynde*

Body.

42 Beryx radians (Ag) m. c., *Malling*

Head and spinal column.

43 Beryx microcephalus c. m., *Southeram*

The fish, docked of its tail.

44 Beryx microcephalus — c. m., *Glynde*
Anterior portion of body.

45 Beryx superbus (Ag)
Fragments of head and body.

46 Beryx superbus — c. m., *Southeram*
Spinal column and scales.

47 Beryx ornatus (Ag) — m. c., *Malling*
Body of fish, docked of its tail.

48 Beryx ornatus (Ag) — m. c., *Malling*
Head, and portion of body.

49 Beryx ornatus (Ag) — l. c., *Southeram*
Head.

50 Beryx ornatus (Ag) — m. c., *Malling*
Portion of head, and spinal column.

51 Beryx ornatus (Ag) — m. c., *Malling*
Anterior half of body.

52 Beryx ornatus (Ag) — l. c., *Southeram*
Head, and portion of spinal column.

53 Beryx ornatus (Ag)
Body, much contorted.

Case 2b.

54 Beryx ornatus (Ag) — m. c., *Malling*
Portion of body.

55 Beryx superbus — c. m., *Glynde*
Head, and anterior portion of body.

56 Beryx ornatus (Ag) (?) — u. c., *Brighton*
Body and head.

57 Beryx — u. c., *Brighton*
Portion of body.

58 Berycopsis elegans (Ag) c. m., *Clayton*
Anterior portion of body.

59 Osmerus (Ag) l. c., *Glynde*
Portion of body.

60 Osmerus (Ag) l. c., *Glynde*
Compressed head and body.

61 Osmiroides crassus (Dix) m. c., *Potter Coll.*, *Malling*
Head, in a most wonderful state of preservation; type of order.

62 Stenostoma pulchellum u. c., *Brighton*
Body.

63 Stenostoma pulchellum (?) u. c., *Brighton*

64 Homonotus dorsalis (Ag) m. c., *Malling*
Head, and anterior portion of the body; type of order.

65 Enchodus halocyon (Ag) u. c., *Brighton*
Head, and portion of spinal column.

66 Enchodus halocyon (Ag) (?)
Tooth.

67 Enchodus halocyon (Ag) u. c., *Brighton*
Tooth.

68 Enchodus halocyon (Ag) l. c., *Glynde*
Tooth.

69 Enchodus halocyon (Ag) (?)
Tooth.

70 Enchodus halocyon (Ag) m. c., *Malling*
Fragments of skull.

71 c., *Southeram*
Tooth; sp.

72 c. m., *Glynde*
Lower jaw; sp.

73 c. m., *Clayton*
Lower jaw; sp.

74 l. c., *Glynde*
Lower jaw, and fragments of upper jaw and skull ; specimen.

75 l. c., *Glynde*
Lower jaws ; sp.

76 (Ag) l. c., *Glynde*
Lower jaws ; sp.

77 l. c., *Clayton*
Head ; sp.

78 c. m., *Clayton*
Jaw ; sp.

79 Tomognathus mordax (Ag) l. c., *Clayton*
Head.

80 Tomognathus mordax (Ag) c. m., *Southeram*
Head.

81 Tomognathus leiodon (Ag) c. m., *Clayton.*
Head.

82 Saurocephalus c. m., *Glynde*
Rostrum.

83 Saurocephalus striatus (Ag) c. m., *Glynde*
Left lower jaw.

84 Saurocephalus lanciformis (Ag) c. m., *Newtimber*
Tooth.

85 Saurocephalus striatus (Ag) c. m., *Newtimber*
Tooth.

86 Saurocephalus lanciformis (Ag) c. m., *Glynde*
Tooth.

87 Saurocephalus lanciformis (Ag) c. m., *Clayton*
Tooth.

88 Saurocephalus striatus (Ag) c. m., *Clayton*
Lower jaw ; type of order.

Case 2c.

89 Saurocephalus lanciformis (Ag) — c. m., *Newtimber*
Tooth.

90 Saurocephalus lanciformis (Ag) — c. m., *Malling*
Left vomer.

91 Belonostomus cinctus (Ag) — m. c., *Malling*
Lower jaw ; type of order.

92 Belonostomus cinctus (Ag) — u. c., *Brighton*
Left ramus.

93 Belonostomus cinctus (Ag) — l. c., *Southeram*
Left lower jaw ; type of order.

94 — m. c., *Malling*
Left ramus, and bones of the head ; sp.

95 Hypsodon Lewisiensis (Ag) — c. m., *Glynde*
Lower jaws.

96 Hypsodon Lewisiensis (Ag) — m. c., *Offham*
Vertebræ.

97 Hypsodon Lewisiensis (Ag) — l. c., *Burham*
Left dentary.

98 Cœlorhynchus cretacius (Ag) — c. m., *Clayton*
Portion of rostrum.

99 Cœlorhynchus cretaceus (Ag) — c. m., *Clayton*
Portion of skull and rostrum.

100 — m. c., *Houghton*
Crushed head of fish ; specimen.

101 Tetrapterus minor (Ag) — c. m., *Amberley*
Two fragments of rostrum.

102 (Ag) — c. m., *Amberley*
Caudal vertebræ.

103 Enchodus halocyon (Ag) — c. m., *Clayton*
Fragments of skull and spinal column (species same as No. 70, Case 2b.)

104 Microdon occipitalis (Ag) m. c., *Malling*
Skull, and anterior half of body; type of order.

105 c. m., *Amberley*
Portion of spinal column; specimen.

106 Beryx (?) u. c., *Brighton*
Anterior spines of dorsal fin.

107 u. c., *Brighton*
Intestine contaning coprolite of carnivorous fish; specimen.

108
Fragment of skull; sp.

109 Beryx (?) c. m., *Clayton*
Fragment of spinal column.

110 c. m., *Amberley*
Fragment of spinal column; sp.

110*a* c. m., *Amberley*
Fragment of spinal column; sp.

111 *Mr. Taylor's Coll.*
Left lower jaw; sp.

112 l. c., *Southeram*
Fossil ova; sp.

FISHES CLAD IN ARMOUR.

Order—Ganoidei.

Character—Skeleton sometimes osseous, sometimes cartilaginous; body covered with enamelled bones; fins with a strong spine for the first ray.

Range—From Devonian to present day.

113 Dercetis elongatus (Ag) u. c., *Brighton*
Portion of head, and greater part of body.

114 Dercetis elongatus (Ag) l. c., *Southeram*
Portion of head, and greater part of body.

115 Dercetis elongatus (Ag) m. c., *Malling*
Head.

116 Dercetis elongatus (Ag) c. m., *Glynde*
Head.

117 Dercetis elongatus (Ag) c. m., *Glynde*
Portion of body.

118 Lophiostomus Dixoni (Ag) m. c., *Malling*
Scales, and fragments of jaw.

119 Lepidotus punctatus (Ag) *Kent*
Scale.

120 Prionolepis angustus (Ag) c. m., *Clayton*
Scale.

121 c. m. *Clayton*
Scale.

122 Gyrodus cretaceous (Ag) m. c., *Malling*
Portion of palate, with teeth; type of order.

123 Gyrodus (Ag) ch. m., *Glynde*
Remarkably fine maxillary, mandible, and vomer, with teeth.

124 Gyrodus (Ag) l. c., *Southeram*
Vomer.

125 Calamopleurus Anglicus (Dixon) c. m., *Amberley*
Scale.

126 Calamopleurus Anglicus (Dixon) l. c., *Southeram*
Scale.

127 Calamopleurus Anglicus (Dixon) l. c., *Southeram*
Scale.

128
Beautifully sculptured scale; sp.

Case 2d.

129 Pycnodus parallelus (Ag) l. c., *Southeram*

Fish, with teeth arranged in parallel lines; portion of palate, bearing teeth.

130 Pycnodus c. m., *Glynde*

Portion of palate, with teeth.

131 Microdon sp. u. c., *Brighton*

Palate, with teeth; type of order.

132 Microdon sp. m. c., *Malling*

Vomer, with teeth.

133 Macropoma Mantellii (Ag) m. c., *Malling*

Fish, with large gill covers. This remarkably fine specimen is perfect, with the exception of the dorsal fin and the spines of the tail. Underneath it, in the same block, is the skeleton of another fish, lying obliquely. See

134 Macropoma Mantellii (Ag) *Malling*

Head, and portion of the body; latter half of body.

135 Macropoma Mantellii (Ag) *Malling*

View of internal portion of the posterior half of body. In the anterior part of this specimen the swim-bladder is preserved, and is shown by the chocolate-coloured scutiform mass underlying the cast of the spinal column.

136 Macropoma Mantellii (Ag) l. c., *Southeram*

Head.

137 Macropoma Mantellii (?) (Ag) l. c.,

Coprolites.

138 Macropoma Mantellii (?) (Ag)

Coprolites.

139 Macropoma Mantellii (?) (Ag)

Coprolites.

Case 2e.

BONY-JAWED FISHES.—CHIMÆROIDS.

Order—Holocephali.

Character—Bony jaws, traversed and enclosed by dental plates; skeleton cartilaginous; body covered with hard enamelled granules; fins generally with a strong spine for the first ray; ventrals abdominal; a single external gill aperture (Owen). These fish are represented by the chimera, the king of herrings, and by two species living now in the Australian and Chinese seas.

Range—From Oolitic Period to present day.

140 Ischyodus Agassizi — c. m., *Amberley*
Suspensory spine.

141 — c. m., *Amberley*
Dorsal spine; sp.

142 — c. m., *Glynde*
Dorsal spine; sp.

143 Edaphodon Mantellii (Buckland) — c. m., *Glynde*
Right lower mandible.

144 Edaphodon Mantellii (Buckland) — c. m., *Clayton*
Lower mandible.

145 Edaphodon Mantellii (Buckland) — l. c., *Southeram*
Premaxillaries.

146 Edaphodon Mantellii (Buckland) — c. m., *Glynde*
Fragment of upper jaw.

147 Edaphodon Mantellii (Buckland) — c. m., *Clayton*
Right lower mandible.

148 Edaphodon — c. m., *Southeram*
Perfect mandible.

SHARKS AND RAYS.

Order—Plagiostomi.

Characters—Skeleton cartilaginous, or partially ossified; body covered with small enamelled granules; gill apertures, five or more; no swim bladder; intestine with a spiral valve.

Range—From Upper Silurian to present day.

149 Plethodus expansus (Dixon) m. c., *Malling*
Fragment of osseous representative of tooth; type of order.

150 Plethodus expansus (Dixon) c. m., *Clayton*
Fragment of osseous representative of tooth.

151 Plethodus expansus (Dixon) c. m., *Newtimber*
Fragment of osseous representation of tooth.

152 Plethodus expansus (Dixon) c. m., *Glynde*
Perfect specimen of osseous representation of tooth.

153 Plethodus oblongus (Dixon) c. m., *Clayton*
Tooth, or rather osseous representative; type of order.

154 Plethodus minor (Dixon) c. m., *Clayton*
Osseous representative of tooth.

155 Chimeroid l. c., *Southeram*
Skull; sp.

156 Chimeroid c. m., *Clayton*
Portion of spine; sp.

157 c. m. *Southeram*
Fossil spawn (?); sp.

158 Otodus appendiculatus (Ag) c. m., *Glynde*
Shark, with two accessory cusps in each tooth; vertebræ and teeth.

159 Otodus appendiculatus (Ag) c. m. *Glynde*
Vertebræ and teeth.

160 Otodus appendiculatus (Ag) *var. loc.*
Teeth.

161 Otodus appendiculatus (Ag)
Tooth imbedded in flint.

162 Otodus superbus
Teeth ; sp.

163 c. m., *Clayton*
Vertebræ of shark ; sp.

164 l. c., *Amberley*
Shark vertebra ; sp.

Case 2f.

165 Oxyrhina crassidens (Dixon) m. c., *Lewes*
Thick-toothed shark ; vertebræ and teeth.

166 Oxyrhina crassidens (Dixon) m. c., *Lewes*
Teeth.

167 Lamna raphiodon (Ag) m. c., *Lewes*
Teeth.

168 Lamna acuminata (Ag) m. c., *Lewes*
Tooth.

169 c. m.,
Vertebræ series ; type of order.

170 Acrodus (allied to) *Norwick*
Tooth ; sp.

171
Tooth ; sp.

172
Tooth ; sp.

173
Tooth ; sp.

174
Tooth ; sp.

175
Tooth ; sp.

176
Tooth ; sp.

177 Corax falcatus (Ag) u. c., *Brighton*

Teeth.

178 Notidanus microdon (Ag) c. m., *Glynde*

Teeth.

179 u. c., *Brighton & Clayton*

Portion of jaw, covered with shagreen; sp.

180 c. m., *Amberley*

Vertebræ covered with shagreen; specimen.

181 Cestracion canaliculatus (Ag) u. c., *Brighton*

Teeth, and shagreen.

182 Cestracion canaliculatus (Ag)

This valuable specimen correlates the teeth, spine, and vertebræ, which had been assigned to three distinct species, and shows that they really belong to one and the same animal, the greater part of the skeleton underlying the tail of Macropoma Mantellii, No. 133. The teeth and shagreen of the jaws are visible under the tail of the above-mentioned fish, while about the middle of the chain of vertebræ the dorsal spine is preserved in its normal position.

183 Sp. c. m., *Clayton*

Head, with shagreen and spinigerous granules and teeth; remarkably fine specimen.

Case 2g.

184 Ptychodus decurrens (Ag) *(fig. Dixon)* l. c., *Southeram*

Teeth, in their natural position, cemented together with peroxide of iron; type of order.

185 Ptychodus decurrens (Ag) c. m., *var.*

Teeth.

186 Ptychodus latissimus (Ag) m. c., *Malling*

Fossil shark, allied to that of Port Jackson; palate and teeth; the teeth are remarkable for their beauty, and for the power which the ridges give them of seizing and crushing shells.

187 Ptychodus latissimus (Ag) u. c., *Brighton*

Worn out tooth.

188 Ptychodus latissimus (Ag) (?)
Perfect tooth.

189 Ptychodus superbus (Ag) c. m., *Clayton*
Rays of fin.

190 Ptychodus superbus m. c., *Malling*
Rays of fin.

191 Ptychodus superbus l. c., *Southeram*
Rays of fin.

192 Ptychodus superbus c. m., *Clayton*
Rays of fin.

193 Ptychodus superbus l. c., *Southeram*
Rays of fin.

194 Ptychodus latissimus (Ag) u. c., *Malling*
Most magnificent series of teeth, 217 in number.

Case 2h.

195 Ptychodus latissimus (Ag)
Cast of tooth found in Suffolk; the original is in Mr. Wetherall's Collection.

196 Ptychodus latissimus (?) u. c., *Kent*
Tooth.

196*a* Ptychodus (Ag) u. c., *Brighton*
Teeth.

197 Ptychodus mammillaris (Ag) m. c., *Malling*
Group of teeth.

198 Ptychodus mammillaris (Ag) *Warminster*
Group of teeth.

199 Ptychodus mammillaris (?) c. m., *Glynde*
c, m., *Sedlescombe*

200 Ptychodus decurrens.

201 Ptychodus — m. c., *Malling*
Rays of fin.

202 Ptychodus — c. m., *Clayton*
Rays of fin, with vertebræ ; type of order.

203 Ptychodus — c. m., *Glynde*
Rays of fin.

204 Ptychodus polygyrus (Ag) — u. c., *Charlton*
Tooth.

205 Ptychodus rugosus (Ag) — u. c., *Chalton*
Teeth.

206 Ptychodus Altior (Ag) — u. c.,
Teeth.

207 Ptychodus depressus (Dix) — u. c.,
Teeth.

208 Acrodus cretaceus (Eg) — c. m., *Southeram*
Tooth.

209 Acrodus Illingworthii (Eg) — c. m., *Southeram*
Group of teeth ; type of order.

210 Antodus Agassizi (Dix) — c. m., *Glynde*
Tooth ; type of order.

Wall Case 8.

SHELL FISH.

Province—Mollusca.
Class—Cehalopoda.
Order—Tetrabranchiata.
Character—Branchiæ, or gills four.
Range—From Upper Cambrian to present day.

1 Ammonites Rhotomagensis (Sharp) — c. m., *Clayton*
2 Ammonites Rhotomagensis (Sharp) — c. m., *Clayton*
3 Ammonites Rhotomagensis (Sharp) — c. m., *Clayton*

4 Ammonites Rhotomagensis (Sharp) c. m., *Clayton*
5 Ammonites Rhotomagensis (Sharp) c. m., *Clayton*
6 Ammonites Rhotomagensis (Sharp) c. m., *Clayton*
7 Ammonites Rhotomagensis (Sharp) c. m., *Clayton*
8 Ammonites Rhotomagensis (Sharp) c. m., *Clayton*
9 Ammonites Rhotomagensis (Sharp) c. m., *Clayton*
10 Ammonites Rhotomagensis (Sharp) c. m., *Clayton*
11 Ammonites Rhotomagensis (Sharp) c. m., *Clayton*
12 Ammonites Rhotomagensis (Sharp) c. m., *Clayton*
Containing a univalve shell.
13 Ammonites Austeni (Sharp) c. m., *Clayton*
Type of order.
14 Ammonites Wolgari (Sharp) c. m., *Clayton*
Type of order.
15 Ammonites Wolgari (Sharp) c. m., *Clayton*
Cast.
16 Ammonites falcatus (Sharp) c. m., *Clayton*
Grey chalk of Clayton tunnel; type of order.
17 Ammonites falcatus (Sharp) c. m., *Clayton*
18 Ammonites varians (Sharp) c. m., *Clayton*
19 Ammonites Rhotomagensis (Sharp) m. c., *Lewes*
20 Ammonites Coupei (Sharp) m. c., *Lewes*
21 Ammonites Coupei (Sharp) m. c., *Lewes*
22 Ammonites Coupei (Sharp) m. c., *Lewes*
23 Ammonites
24 Ammonites
25 Ammonites navicularis (Sharp)
26 Ammonites navicularis (Sharp)
27 Ammonites sp.
28 Ammonites sp. m. c., *Sedlescombe*
29 Ammonites sp.

30 Ammonites navicularis (Sharp)
31 Ammonites varians (?)
32 Ammonites sp.
33 Ammonites sp.
34 Ammonites sp.
35 Ammonites goupillianus (Sharp); also A. Rhotomagensis
36 Ammonites sp.
37 Ammonites falcatus (?)

Wall Case 9.

38 Ammonites Lewisiensis — u. c., *Rottingdean*
Fragment of enormous shell, showing the ramifications of the partition walls of the chambers.

39 Ammonites Lewisiensis — l. c., *Clayton*
Smaller specimen of the same species as 38, showing the ramifications of the partition walls in a better state of preservation.

40 Ammonites Lewisiensis — m. c., *Malling*
41 Ammonites sp. — m. c., *Malling*
42 Ammonites sp. — m. c., *Malling*
43 Ammonites catinus

Case 8.

44 Nautilus Fleurisianus — c. m., *Clayton*
45 Nautilus lævigatus (Sharp) — m. c., *Lewes*
46 Nautilus elegans (Sharp) — m. c., *Lewes*
Section showing partitions.
47 Nautilus elegans (Sharp) — c. m., *Clayton*
48 Nautilus elegans (Sharp) — c. m., *Clayton*
49 Nautilus elegans (Sharp) — c. m., *Clayton*

50	Nautilus Deslongchampsiansus (d'Orb)	c. m., *Clayton*
51	Nautilus sp. Young.	c. m., *Clayton*
52	Nautilus expansus (Sharp)	c. m., *Clayton*
53	Nautilus sp.	c. m., *Clayton*
54	Nautilus sp.	c. m., *Clayton*
55	Turrilites Mantellii (Sharp)	c. m., *Clayton*
56	Turrilites Mantellii (?) (Sharp)	c. m., *Clayton*
57	Turrilites tuberculatus (Sharp)	c. m., *Clayton*
58	Turrilites tuberculatus (Sharp)	c. m., *Clayton*
59	Turrilites tuberculatus (Sharp)	c. m., *Clayton*
60	Turrilites Bergeri (Sharp)	c. m., *Clayton*
61	Turrilites costatus (Sharp)	c. m., *Hamsey*
62	Turrilites costatus (Sharp)	c. m., *Hamsey*
63	Turrilites costatus (Sharp)	
64	Turrilites costatus (Sharp)	
65	Turrilites costatus (Sharp)	
66	Turrilites Scheuchzerianus (Sharp)	
67	Turrilites Scheuchzerianus (Sharp)	c. m., *Hamsey*
68	Turrilites sp.	
69	Turrilites sp.	
70	Scaphites striatus (Mant)	c. m., *Clayton*
71	Scaphites striatus (Mant)	c. m., *Clayton*
72	Scaphites striatus (Mant)	c. m., *Clayton*
73	Scaphites striatus (Mant)	c. m., *Clayton*
74	Scaphites striatus (Mant)	c. m., *Clayton*
75	Scaphites striatus (Mant)	c. m., *Clayton*
76	Scaphites costatus (Mant)	c. m., *Clayton*
77	Scaphites costatus (Mant)	c. m., *Clayton*
78	Scaphites costatus (Mant)	c. m., *Clayton*

79 Hamites (?) c. m., *Clayton*
Probably a Nautilus Deslongchampsiansus crushed.
80 Hamites (?) c. m., *Clayton*
Probably Ammonites Navicularis crushed.
81 Hamites (?) c. m., *Clayton*
Probably A. Navicularis crushed.
82 Hamites attenuatus (Buck) c. m., *Clayton*
83 Hamites attenuatus (?) (Mant) } c. m., *Clayton*
Angustus attenuatus (Dixion) }
84 Hamites attenuatus (?) (Mant) c. m., *Clayton*
85 Hamites attenuatus (?) (Mant) c. m., *Clayton*
86 Hamites attenuatus (?) (Mant) c. m., *Clayton*
87 Hamites attenuatus (?) (Mant) c. m., *Clayton*
88 Hamites attenuatus (?) (Mant) c. m., *Clayton*
89 Hamites attenuatus (?) (Mant) c. m., *Clayton*
90 Ancyloceras sp. c. m., *Clayton*
91 Bacculites Faujasii c. m., *Clayton*
92 Bacculites bacculoides (Mantel) c. m., *Clayton*
93 Bacculites Faujasii c. m., *Clayton*
94 Bacculites Faujasii c. m., *Clayton*
95 Bacculites Faujasii c. m., *Clayton*
96 Bacculites Faujasii c. m., *Clayton*
97 Bacculites Faujasii c. m., *Clayton*
98 Bacculites Faujasii c. m., *Clayton*
99 Bacculites Faujisii c. m., *Clayton*
100 Bacculites sp. c. m., *Clayton*
101 Bacculites (?) c. m., *Clayton*
Chamber of.
102 Belemnitella mucronata (d'Orb) c. m., *Clayton*
103 Belemnitella mucronata (d'Orb) c. m., *Clayton*
104 Belemnitella mucronata (d'Orb) c. m., *Clayton*

105 Belemnitella mucronata (d'Orb) — u. c., *Brighton*
106 Belemnitella mucronata (d'Orb) — u. c., *Brighton*
107 Belemnitella mucronata (d'Orb) — u. c., *Brighton*
108 Belemnitella mucronata (d'Orb) — u. c., *Brighton*
109 Belemnitella plena (Sharp) — c. m., *Newtimber*
110 Belemnitella — c. m., *Newtimber*
111 Belemnitella Baudouini (Sharp) — c. m., *Newtimber*
112 Belemnitella quadrata (Sharp) — c. m., *Newtimber*
113 Belemnitella sp. — c. m., *Newtimber*
Lanceolata.
114 Belemnitella sp. — c. m., *Newtimber*
115 Belemnitella sp. — c. m., *Newtimber*
116 Belemnitella sp. (?) — u. c., *Brighton*
117 Rhyncolites sp.
Beak of cuttle-fish or other cephalopod.
118 Rhyncolites sp. — c. m., *Clayton*
119 Rhyncolites sp. — c. m., *Clayton*

Case 9.

Province—Mollusca.
Class—Gasteropoda.

120 Dentalium difforme (Dixon) — c. m., *Clayton*
121 Dentalium, cast — m. c., *Malling*
122 Rostellaria Parkinsoni — c. m., *Newtimber*
123 Aporrhais stenopterus (Dixon) — c. m., *Clayton*
124 Pterocera — c. m., *Clayton*
125 Pterocera — l. c., *Glynde*
126 Pterocera — c. m., *Clayton Tunnel*
127 Pterocera — c. m., *Clayton Tunnel*

128 Pterocera — c. m., *Clayton Tunnel*
129 Pterocera — c. m., *Clayton Tunnel*
130 Rostellaria Dupiniana (d'Orb) — c. m., *Clayton Tunnel*
131 Cassidaria inserta (Dixon) — c. m., *Newtimber*
Dolium nodosum
Type of order.
132 Cerithium (?) — u. c., *Malling*
133 Cerithium (?) — u. c., *Malling*
134 Cerithium ornatum — u. c., *Malling*
135 Scalaria compacta (Dixon) — c. m., *Clayton Tunnel*
136 Solarium ornatum (Fitton) — c. m., *Clayton Tunnel*
137 Solarium catenatum (Dixon) — c. m., *Glynde*
138 Solarium ornatissimum (?) — c., m., *Clayton*
139 Solarium Martinianum (?) (d'Orb) — c. m., *Clayton*
140 Solarium dentatum (d'Orb) — c. m., *Clayton*
141 Solarium dentatum (?) — c. m., *Clayton*
142 Cirrhus, cast — c. m., *Clayton*
143 Avellana incrassata (d'Orb) — c. m., *Clayton*
144 (?) — c. m., *Clayton*
145 Turritella (?) — c. m., *Clayton*
146 (?) — c. m., *Clayton*
147 (?) — c. m., *Shul*
148 Avellana (?)
149 Turritella (?) — m. c., *Malling*
150 (?) Trochus — c. m., *Glynde*
151 (?) — c. m., *Clayton*
152 Trochus gibbula — c. m., *Clayton*
153 Turbo — c. m., *Clayton*
154 Turbo — c. m., *Clayton*
155 (?) — c. m., *Clayton*

156 Turbo gemmatus — m. c., *Malling*
157 Turbo gemmatus — m. c., *Malling*
158 Turbo gemmatus — m. c., *Malling*
In flint.
159 Trochus linearius — c. m., *Clayton Tunnel*
160 Trochus linearius — c. m., *Clayton Tunnel*
161 (?) Cirrhus — m. c., *Malling*
162 Pleurotomaria reticulata — c. m., *Clayton Tunnel*
This shell is indistinguishable from those in the Oxfordian and Kimmeridgean zones.
163 Pleurotomaria Cassiniana (?)(d'Orb) — c. m., *Clayton Tnl.*
164 Pleurotomaria — m. c., *Malling*
165 Pleurotomaria perspectiva — m. c., *Malling*
166 Pleurotomaria perspectiva — c. m., *Newtimber*
167 Pleurotomaria perspectiva — c. m., *Southeram*
168 Pleurotomaria perspectiva — c. m., *Clayton*
169 Pleurotomaria perspectiva — u. c., *Brighton*
170 Pleurotomaria perspectiva — u. c., *Brighton*
171 Pleurotomaria perspectiva — c. m., *Clayton*
172 Pleurotomaria perspectiva — m. c., *Malling*
173 Pleurotomaria perspectiva — c., *Wilts*
174 Pleurotomaria perspectiva — *Wiltshire*
175 Pleurotomaria (cirhus) depressa — m. c., *Lewes*
u. c., *Brighton*

Province—Mollusca.
Class—Lamellibranchiata.

176 Teredo amphisbœna (Dix) — m. c., *Malling*
177 Teredo amphisbœna (Dix) — c. m., *Clayton*
178 Teredo amphisbœna (Dix) — m. c., *Malling*
179 Teredo amphisbœna (Dix) — u. c. *Brighton*

180	Teredo amphisbœna (Dix)	u. c., *Sotheram*
181	Teredo amphisbœna (Dix)	u. c., *Sotheram*
182	Teredo amphisbœna (Dix)	u. c., *Sotheram*
183	Teredo amphisbœna (Dix)	u. c., *Brighton*
184	Teredo amphisbœna (Dix)	c. m., *Glynde*
185	Pholadomya	c. m., *Southeram*, *Lewes*
186	Cardium Cenomanense	c. m., *Clayton Tunnel*
187	Cardium Cenomanense	
188	Cardium Cenomanense	
189	(?)	
190	(?)	
191	(?)	
192	(?)	
194	(?)	
195	(?)	
196	(?)	
197	(?)	c. m., *Clayton Tunnel*

Case 5.

198	Arca	c. m., *Clayton Tunnel*
199	Arca	c. m., *Dover*
200	Arca	c. m., *Clayton*
201	Arca	c. m., *Clayton*
202	Arca	c. m., *Clayton*
203	Isocardium	c. m., *Clayton*
204	Isocardium	c. m., *Glynde*
205	(?)	c. m., *Clayton*
206	(?)	c. m., *Newtimber*
207	(?)	c. m., *Clayton*

208	(?)	c. m., *Clayton*
209	(?)	c. m., *Clayton*
210	Corbis rotundata (d'Orb)	c. m., *Clayton*
211	Corbis cordiiformis	c. m., *Clayton*
212	Cyprina	u. c., *Brighton*
213	Lima spinosa	*Localities varying*
214	Lima Hooperi	c. m., u. and l., *Clayton*
215	Lima aspera	u. c., *Brighton*
216	Lima parallelum (?) intermedia (?)	c. m., *Clayton*
217	Lima, fragment	c. m., *Clayton*
218	Lima Royeriana (?) (d'Orb)	c. m. *Glynde*
219	Lima semisulcata (Desh)	c. m., *Clayton*
220	Spondylus fimbriatus (dianchora)	u. c., *Brighton*
221	Spondylus fimbriatus	u. c., *Brighton*
222	Spondylus fimbriatus	c. m., *Glynde*
223	Spondylus latus	u. c., *Seaford*
224	Spondylus latus	u. c., *Brighton*
225	Spondylus latus	u. c., *Brighton*
226	Spondylus Gibbosus	u. c., *Brighton*
227	Spondylus Gibbosus	flint, *Brighton*
228	Spondylus superbus	u. c., *Seaford*
229	Lima (?) granosa (Dix) plicatula (?)	c. m., *Newtimber*
230	Pecten æquicostatus (d'Orb)	flint,
231	Pecten æquicostatus (d'Orb)	flint,
232	Pecten æquicostatus (d'Orb)	m. c., *Malling*
233	Pecten quinquecostatus (d'Orb)	m. c., *Malling*
234	Pecten quinquecostatus (d'Orb)	l. c., *Clayton*
235	Pecten quinquecostatus (d'Orb)	c. m., *Newtimber*
236	Pecten quinquecostatus (d'Orb)	c. m., *Newtimber*
237	Pecten quinquecostatus (d'Orb)	c. m., *Newtimber*

238	Pecten quinquecostatus (d'Orb)	c. m., *Newtimber*
239	Pecten quinquecostatus (d'Orb)	c. m., *Clayton*
240	Pecten quinquecostatus (d'Orb)	c. m., *Clayton*
241	Pecten quinquecostatus (d'Orb)	
242	Pecten quinquecostatus (d'Orb)	(?)
243	Pecten nitida	u. c., *Brighton*
244	Pecten nitida (Dix)	u. c., *Brighton*
245	Pecten nitida (?) (d'Orb)	u. c., *Brighton*
246	Pecten nitida (?) (d'Orb)	u. c., *Brighton*
247	Pecten nitida (?) (d'Orb)	u. c., *Brighton*
248	Pecten nitida (?) (d'Orb)	u. c., *Brighton*
249	Pecten nitida (?) (d'Orb)	u. c., *Brighton*
250	Pecten nitida (?) (d'Orb)	u. c., *Brighton*
251	Pecten orbicularis (laminosa) (Mant)	c. m., *Clayton*
252	Pecten orbicularis	c. m., *Clayton*
253	Pecten orbicularis	c. m., *Newtimber*
254	Pecten orbicularis	c. m., *Newtimber*
255	Pecten orbicularis	c. m., *Newtimber*
256	Pecten nitida	u. c., *Brighton*
257	Pecten orbicularis	c. m., *Glynde*
258	Pecten orbicularis	c. m., *Glynde*
259	Pecten (?)	c. m., *Glynde*
260	Pecten nitida	c. m., *Glynde*
261	Pecten orbicularis	c. m., *Glynde*
262	Pecten nitida	
263	Pecten (Mant)	c. m., *Clayton*
264	Pecten	(?)
265	Pecten Dujardini	m. c., *Houghton*
266	Pecten (?)	m. c., *Houghton*
267	Pecten Dujardini	m. c., *Houghton*

268	Pecten (?)	c. m., *Newtimber*
269	Pecten (?)	c. m., *Clayton*
270	Pecten	u. c., *Brighton*
271	Pecten Beaveri	c. m., *Clayton*
272	Pecten Beaveri	c. m., *Glynde*
273	Pecten Beaveri	c. m., *Glynde*
274	Pecten Beaveri	*Newtimber*
275	Pecten Beaveri	c. m., *Glynde*
276	Pecten Beaveri	c. m., *Glynde*
277	Pecten Beaveri	c. m., *Clayton*
278	Pecten Beaveri	(?)
279	Pecten Beaveri	(?)
280	Pecten Beaveri	(?)
281	Pecten Beaveri	(?)
282	Pecten Beaveri	c. m., *Clayton*
283	Pecten Beaveri	c. m., *Glynde*
284	Plicatula inflata	c. m., *Southeram*
285	Plicatula inflata	(?)
286	Plicatula inflata	(?)
287	Plicatula inflata	(?)
288	Dianchora lata	c. m., *Clayton*
289	Exogyra Rauliniana (ostrea) (d'Orb)	c. m., *Clayton*
290	Exogyra Rauliniana	c. m., *Clayton*
291	Exogyra Rauliniana	c. m., *Clayton*
292	Exogyra Rauliniana	c. c., *Seaford*
293	Exogyra Rauliniana	m. c., *Southeram*
294	Exogyra Rauliniana	c. m., *Clayton*
295	Exogyra Rauliniana	c. m., *Clayton*
296	Exogyra Rauliniana	c. m., *Clayton*

297 Ostrea (Oyster) u. c., *Brighton*
Spat.

298 Ostrea u. c., *Brighton*
Spat.

299 Ostrea u. c., *Brighton*
Young.

300 Ostrea c. m., *Clayton*
Young.

301 u. c., *Brighton*

302 Ostrea u. c., *Southeram*
Young; the space between the valves is converted into flint.

303 Ostrea (?)
Young.

304 Ostrea u. c., *Brighton*
Young.

305 Ostrea m. c., *Lewes*
Young.

306 Ostrea c. m., *Amberley*
Young.

307 Ostrea m. c., *Lewes*
Young.

308 Ostrea m. c., *Lewes*
Young.

309 Ostrea u. c., *Brighton*
Young.

310 Ostrea
Young.

311 Ostrea c. m., *Clayton*
Young.

312 Ostrea
Young.

313 Ostrea m. c., *Lewes*
Young.

314 Ostrea
About two years old.
315 Ostrea — m. c., *Lewes*
316 Ostrea — m. c., *Lewes*
317 Ostrea — m. c., *Lewes*
318 Ostrea — m. c., *Lewes*
About three years old.
319 Ostrea — m. c., *Lewes*
Three years old.
320 Ostrea — m. c., *Lewes*
From three to four years old.
321 Ostrea Coulonii — m. c., *Lewes*
322 Ostrea — m. c., *Lewes*
323 Ostrea
324 Ostrea vesicularis
325 Ostrea
326 Ostrea frons — c. m., *Dover*
327 Ostrea frons — c. m., *Clayton*
328 Ostrea carinata
329 Ostrea carinata — c. m., *Newtimber*
330 Gryphæa columba
331 Gryphæa columba

Case 6.

332 Inoceramus concentricus
332*a* Inoceramus Brogniarti — m. c., *Malling*
Group of shells.
333 Inoceramus Brogniarti — l. c., *Southeram*
334 Inoceramus Brogniarti — l. c., *Southeram*
335 Inoceramus Crispii — u c., *Brighton*

336 Inoceramus Crispii — u. c., *Brighton*

337 Inoceramus Cuvieri — m. c. *Malling*

338 Inoceramus sulcatus — m. c., *Southeram*

339 Inoceramus Cuvieri — m. c., *Malling*

340 Inoceramus Cuvieri — m. c., *Southeram*

341 Inoceramus digitatus — u. c., *Brighton*

342 Inoceramus pinniformis, N. S. — u. c., *Brighton*

343 Inoceramus pinniformis, N. S. — u. c., *Brighton*
Young.

344 Inoceramus Websteri — m. c., *Lewes*

345 Inoceramus mytiloides — *Warminster*

346 Inoceramus mytiloides — (?)

347 Inoceramus mytiloides — (?)
Variety according to Mantell.

348 Inoceramus
Cast in flint.

349 Inoceramus
Cast in flint.

350 Inoceramus
Cast in chalk.

351 Inoceramus
Young.

352 Inoceramus — m. c., *Malling*
Hinge of.

353-4 Inoceramus — m. c., *Malling*
Right and left valves ; portion of hinge.

355 Inoceramus — flint,
Cast of hinge.

356 Inoceramus — flint,
Cast of hinge in flint.

357 Inoceramus — u. c., *Brighton*
Portion of hinge.

358 Inoceramus — u. c., *Brighton*
Fragment of shell.

359 Inoceramus — flint, *Brighton*
Cast of shell, with cast of borings in flint.

360 Inoceramus — flint, *Brighton*
Cast of shell, with cast of borings in flint.

361 Inoceramus
Cast of shell, with cast of borings in flint.

362 Inoceramus — c. m., *Clayton*

363 Inoceramus — (?)
Fragment of shell

364 Inoceramus — (?)
Fragment of shell.

365 Avicula pectinata — u. c., *Woolwich, Kent*

366 Avicula pectinata — (?)
Cast.

367 Avicula pectinata — c. m., *Clayton*
Cast.

368 Pinna decussata — *Brighton*
Cast in flint.

369 Pinna decussata — c. m., *Newtimber*
Both valves of shell.

370 Gervillia — (?)

371 Modiola quadrata — c. m., *Clayton*

372 Anomia — c. m., *Clayton*

373 (?) — c. m., *Clayton*

374 Hippurites — c. m., *Folkestone*

375 Hippurites Moretoni — m., c., *Malling*
Lower valve.

376 Hippurites Moretoni — m. c., *Amberley*
Lower valve.

377 Sp. *Ashwell Cambs*
378 Sp. m. c., *Southeram*

Case 6.

Province—Mollusca.
Class—Brachiopoda.

1 Terebratula bulla
A series of specimens of various sizes.
2 Rhynconella gracilis
3 Terebratula
4 Terebratula
5 Rhynconella
6 Terebratula (?)
7 Rhynconella
8 Crania Ignabergensis
Belgian species.
9 Crania Parisiensis
10 Rhynconella latissima
11 Rhynconella plicatilis
12 Terebratulina gracilis
13 Terebratulina striata

Case 3a.

CRUSTACEANS.

Province—Articulata.
Class—Crustacea.
Order—Podophthalmata.
Character—Articulated animals with eyes supported on stalks.

1 Enoploclytia Sussexiensis (Mant) l. m., *Clayton*
Fossil cray-fish; body and tail perfect; type of order.
By the fracture of the matrix, the internal bone of the jaw is plainly visible.

2 Enoploclytia Sussexiensis (Mant) c. m., *Clayton*
Head, thorax, and claws.

3 Enoploclytia Sussexiensis (Mant) c. m., *Glynde*
Claws.

4 Enoploclytia Sussexiensis (Mant) c. m., *Clayton*
Fragment of claw.

5 Enoploclytia Sussexiensis (Mant) c. m., *Clayton*
Secondary claw.

6 Enoploclytia Sussexiensis (Mant) c. m., *Clayton*
Claw.

7 Enoploclytia Sussexiensis (Mant) c. m., *Glynde*
Young individual; docked of its tail.

8 Enoploclytia Sussexiensis (Mant) c. m., *Glynde*
Claw.

9 Enoploclytia Sussexiensis (Mant) c. m., *Glynde*
Claw.

10 Enoploclytia Sussexiensis (Mant) c. m., *Glynde*
Leg.

11 Enoploclytia Sussexiensis (Mant) c. m., *Glynde*
Claw.

12 Enoploclytia Sussexiensis (Mant) c. m., *Glynde*
Crushed superior plate of thorax.

13 Enoploclytia Leachii (Mant) u. c., *Brighton*
Fossil craw-fish; two claws interlocked, showing the animal had been suddenly entombed and had convulsively clasped it claws.

14 Enoploclytia Leachii (Mant) u. c., *Brighton*
Two claws.

15 Enoploclytia Leachii (Mant) u. c., *Brighton*
Two claws, anteuna, and a portion of the head and thorax.

16 Enoploclytia Leachii (Mant) u. c., *Brighton*
Head, thorax, and two claws.

Case 3b.

17 Enoploclytia Leachii (Mant) u. c., *Brighton*
Two claws, legs, and portion of thorax and tail.

18 Enoploclytia sp.
Body and legs in one block of chalk ; two claws in another.

19 Enoploclytia sp. (? Sussexiensis) u. c., *Brighton*
Claw.

20 Enoploclytia (? Sussexiensis)
Two claws

21 Enoploclytia Leachii u. c.,
Tail.

22 Mesostylus
Fragment of claw.

23 Sp.
Fossil cray-fish, nearly perfect.

24 Sp.
Leg and claw of crustacean.

25 Sp.
Claw and foot jaws.

26 Sp.
Fragments.

27 Mesostylus Faujasii (Brong) c. m., *Clayton*
Fossil crab ; claw.

28-29 Sp.
Two fragments.

30 Sp. c. m., *Clayton Tunnel*
Fragment.

31 Grapsus (?) c. m., *Clayton*
Claw (?)

32 Sp. c. m., *Clayton Tunnel*

Fragment.

33 Mesostylus (?) c. m., *Glynde*

Superior portion of carapace of crab.

34 Sp. u. c. *Brighton*

Fragment of crustacean.

Order—Cirripedia; Family Lepadidæ.

Characters—Peduncle flexible, and provided with muscles; scuta furnished only with an adductor vessel; other valves, when present, not united into an immovable ring (Darwin).

35 Scalpellum angustum (Darwin) m. c., *Southeram*

Carina-ziphidium (Dix)

(Geology and Fossils of Sussex, Table xxviii., *fig.* 9*)*

One of valves.

36 Scalpellum lineatum (Darwin) l. c., *Southeram*

Carina; one of the valves.

37 Scalpellum maximum (Darwin) m. c., *Lewes*

Carina; one of the valves.

38 Scalpellum maximum (Darwin) m. c., *Malling*

Scutum; one of the valves.

39 Pollicipes glaber (Darwin) u. c., *Brighton*

Turgum; one of the valves.

40 Loricula pulchella m. c., *Malling*

Ossicles.

41 Loricula pulchella (Sow)

Two valves and ossicles of barnacle.

Case 4.

Province—Annulata.
Class—Annelida.
Order—Serpulacea.

1	Serpula plexus (Dix)	u. c., *Brighton*
2	Serpula plexus (Dix)	m. c., *Malling*
3	Serpula annulata (Dix)	c. m.,
4	Serpula annulata (Dix)	u. c., *Brighton*
5	Serpula annulata (Dix)	
6	Serpula sp.	m. c., *Lewes*
7	Serpula sp.	
8	Serpula sp.	l. c., *Southeram*
9	Serpula sp.	u. c., *Brighton*
10	Serpula sp.	u. c., *Brighton*
11	Serpula sp.	u. c., *Brighton*
12	Serpula sp.	u. c., *Brighton*
13	Serpula sp.	u. c., *Brighton*
14	Serpula sp.	u. c., *Brighton*

Case 3c.

Province—Annuloida.
Class—Echinodermata.
Order—Asteridea.

1	Oreaster squamatus (Forbes) Fossil star-fish; type of order.	u. c., *Woolwich*
2	Oreaster bulbiferus (Forbes)	u. c., *Woolwich*
3	Oreaster pistilliformis	u. c., *Seaford*
4	Oreaster sp.	u. c., *Seaford*

5 Oreaster sp. u. c., *Brighton*

6 Oreaster sp. u. c., *Brighton*

7 Ophiura u. c., *Brighton*

8 Goniaster Mosaicus (Forbes) l. c., *Amberley*

9 Goniaster Smithii (Forbes) l. c., *Amberley*

10 Goniaster Smithii (Forbes) c. m., *Clayton Tunnel*
Type of order.

11 Goniaster Mosaicus (Forbes) c. m., *Amberley*
A remarkably fine specimen.

12 Goniaster Mosaicus (Forbes) c. m., *Amberley*

13 Goniaster sp. *Folkestone*

14 Goniaster Parkinsoni u. c., *Brighton*

15 Goniaster compactus (Forbes) m. c.,
Type of order.

Goniaster Combei (Dixon)

16 Goniaster Mantellii (Forbes) m. c., *Lewes*

17 Goniaster uncatus (Forbes) u. c., *Woolwich*

18 Goniaster uncatus (Forbes) u. c.,

19 Goniaster uncatus (Forbes) u. c., *Lewes*

20 Goniaster Parkinsoni (Forbes) u. c., *Lewes*

21 Goniaster Hunteri (Forbes) u. c., *Woolwich*

22 Goniaster sp. u. c., *Brighton*

23 Goniaster sp. u. c., *Brighton*

Case 3f.

24 Marsupites u. c., *Brighton*

25 Oreaster u. c., *Seaford*

26 Oreaster bulbiferus

27 Goniaster sp. u. c., *Seaford*

28 Oreaster — u. c., *Brighton*
Casts of ossicles in flint.

29 Goniaster sp. — u. c., *Brighton*
Cast of ossicles in flint.

30 Goniaster sp. — u. c., *Brighton*
Ossicles imbedded in flint.

31 Oreaster — u. c., *Seaford*
Fragment.

32 Ophiura serrata — l. c., *Folkestone*
Remarkably fine specimen, nearly perfect.

Case 3d.

Order—Echinidea.

33 Cyphosoma variolaris (Desm) — u. c., *Woolwich*
34 Cyphosoma variolaris (Desm) — m. c., *Lewes*
35 Cyphosoma variolaris (Desm) — m. c., *Lewes*
36 Cyphosoma variolaris (Desm) — m. c., *Lewes*
37 Cyphosoma variolaris (Desm) — u. c., *Woolwich*
38 Cyphosoma variolaris (Desm) — m. c., *Lewes*
39 Cyphosoma variolaris (Desm) — m. c., *Lewes*
40 Cyphosoma variolaris (Desm) — u. c., *Woolwich*
41 Cyphosoma Milleri — u. c., *Brighton*
42 Cyphosoma Milleri — m. c., *Malling*
43 Cyphosoma (?) — m. c., *Malling*
44 Cyphosoma (?) — c. m., *Folkestone*
45 Cyphosoma (?) — c. m., *Glynde*
46 Cyphosoma (?) — c. m., *Glynde*
47 Cyphosoma (?) — c. m., *Clayton*
48 Cyphosoma (?) — m. c., *Lewes*

49 Cyphosoma (?)
Cast.

50 Cyphosoma (?)
Cast.

51 Salenia personata (Defr) — c. m., *Glyde*

52 Salenia scutifera (Defr) — u. c., *Seaford Cliff*

53 Salenia personata (Defr) — u. c., *Seaford Cliff*

54 Echinopsis pusillus — u. c., *Seaford Cliff*

55 Glypticus Koninckii — l. c., *Southeram*

56 (?) — u. c., *Woolwich*

57 (?) — m. c., *Malling*

58 (?) — m. c., *Malling*

59 (?) — m. c., *Malling*

60 Cidaris Bowerbankii (Forbes) — c. m., *Newtimber*

61 Cidaris Dixoni (Wright) — c. m., *Clayton*
Perfect spine ; type of order.

62 Cidaris (? Bowerbankii) — c. m., *Newtimber*
Spine, figured.

63 Cidaris subvesiculosa (d'Orb) — l. c., *Southeram*

64 Cidaris clavigera (Konig) — u. c., *Woolwich*
A remarkably fine specimen, with the spines attached.

65 Cidaris clavigera (Konig) — u. c., *Woolwich*

66 Cidaris Bowerbankii (Konig) — l. c., *Dover*

67 Cidaris clavigera (Konig)
Spine.

Cidaris sceptrifera
Test.

68 Cidaris clavigera
Spine.

69 Cidaris clavigera
Spine.

70 Cidaris clavigera
Spine.
71 Cidaris clavigera
Spine.
72 Cidaris clavigera
Spine.

Case 3e.

73 Cidaris sceptrifera (Mant) u. c., *Woolwich*
74 Cidaris sceptrifera (Mant) u. c., *Woolwich*
75 Cidaris sceptrifera (Mant) u. c., *Woolwich*
76 Cidaris sceptrifera (Mant) u. c., *Woolwich*
77 Cidaris sceptrifera (Mant) u. c., *Woolwich*
78 Cidaris sceptrifera (Mant) u. c., *Woolwich*
79 Cidaris sceptrifera (Mant) u. c., *Woolwich*
80 Cidaris sceptrifera (Mant) u. c., *Woolwich*
81 Cidaris sceptrifera (Mant) u. c., *Woolwich*
82 Cidaris dissimilis (Forbes) u. c., *Brighton*
83 Cidaris perornata (Forbes) u. c., *Houghton*
Test. and spines.
84 Cidaris dissimilis (?) (Forbes) m. c., *Malling*
Test. and spines.
85 Cidaris perornata (Forbes) u. c., *Brighton*
Test. imbedded in flint.
86 Cidaris (?) (Forbes (?)
Spines.
87 Cidaris perornata (Forbes) u. c., *Woolwich*
88 Cidaris perornata (Forbes)
Spines.
89 Cidaris serrata (Wright) m. c., *Malling*
Test. and spines; type of order.

90 Cidaris sulcata — l. c., *Southeram*
Test. and spines.
91 Cidaris hirudo — l. c., *Alfriston*
Test. and spines.
92 Cidaris sulcata — m. c., *Burpham*
93 Cidaris (probably perornata) — *Brighton*
Cast in flint.
94 Cidaris (?)
95 Echinus granulosus (Munster) — m. c., *Malling*
96 Galerites castanea (Brong) — u. c., *Brighton*
97 Galerites subuculus (Leske) — l. c., *Glynde*
98 Galerites cylindrica (Lamark)
99 Galerites cylindrica (Lamark)
100 Galerites cylindrica (Lamark)
101 Galerites cylindrica (Lamark)
102 Galerites cylindrica (Lamark)
103 Galerites cylindrica (Lamark)
104 Galerites cylindrica (Lamark)
105 Galerites cylindrica (Lamark)
106 Galerites — *Woolwich*

Case 4.

107 Galerites — c. m., *Clayton*
Group of tests.
108 Galerites
Group of tests.
109 Galerites subrotundus — m. c., *Lewes*
110 Galerites — m. c., *Lewes*
111 Galerites — *Lewes*
Cast in flint.

112 Galerites albogalerus (Klein) m. c., *Malling*
A series, showing variations in form.
113 Galerites
114 Galerites
115 Galerites
116 Galerites
117 Galerites
118 Spatangus coranguinum
A series, showing various modifications of size and form.
119 Ananchytes pallula (Lamaık)
120 Ananchytes subglobosus (Leske) l. c.,
121 Ananchytes ovata
A series.

Case 3f.

Order—Crinoidea.

122 Marsupites Milleri u. c., *Burpham*
123 Marsupites Milleri u. c., *Burpham*
124 Marsupites Milleri u. c., *Burpham*
125 Marsupites Milleri u. c., *Burpham*
126 Marsupites Milleri u. c., *Burpham*
127 Marsupites Milleri u. c., *Burpham*
128 Marsupites Milleri u. c., *Burpham*
129 Marsupites lævigatus u. c., *Brighton*
Very fine specimen, with the arms attached.
130 Marsupites lævigatus u. c., *Burpham*
131 Marsupites lævigatus u. c., *Burpham*
132 Marsupites lævigatus u. c., *Burpham*
133 Marsupites lævigatus u. c., *Brighton*

134 Marsupites — u. c., *Brighton*

Vase of arms.

135 Pentacrinus — m. c., *Malling*

New species, figured by Dixon; this unique specimen shows nearly the whole of the head, and a great part of the stem.

136 Pentacrinus — m. c., *Malling*

Portion of stem.

137 Pentacrinus — m. c., *Houghton*

Portion of stem.

138 Pentacrinus — m. c., *Houghton*

Portion of stem.

139 Pentacrinus — m. c., *Houghton*

Portion of stem.

140 Pentacrinus — *Dr. Mantell's Coll.*

Portion of stem.

141 Pentacrinus — c. m., *Clayton*

Portion of stem.

142 Pentacrinus — c. m., *Glynde*

Portion of stem.

143 Pentacrinus — m. c., *Houghton*

Portion of stem.

144 Pentacrinus — m. c., *Houghton*

Crushed mass of ossicles of the head.

145 Pentacrinus — m. c., *Houghton*

Crushed mass of ossicles of the head.

146 Bourguetocrinus — u. c., *Brighton*

Fragments of roots by which the animal was moored to its resting-place.

147 Bourguetocrinus

148 Bourguetocrinus

149 Bourguetocrinus

150 Bourguetocrinus

151 Bourguetocrinus

152 Bourguetocrinus

153 Bourguetocrinus

A fine series of the ossicles of the stem and head, belonging probably to two or three distinct species.

Case 4.

154 Bourguetocrinus *Coll. and arranged by Dr. Mantell*

Continuation of the preceding series.

Case 4.

Class—Anthozoa.

1	Parasmilia centralis	u. c., *Brighton*
2		
3	Parasmilia centralis	m. c., *Lewes*
4	Parasmilia centralis	m. c., *Lewes*
5	Parasmilia centralis	u. c., *Brighton*
6	Parasmilia centralis	
7	Parasmilia centralis	u. c., *Kent*
8	Parasmilia cultrata	u. c., *Brighton*
9	Parasmilia cultrata	u. c., *Brighton*
10	Parasmilia cultrata	u. c., *Brighton*
11	Parasmilia cultrata	u. c., *Brighton*
12	Parasmilia cultrata	c. m., *Clayton Tunnel*
13	Diblasus grevensis	u. c., *Brighton*
14	Diblasus grevensis	c. m., *Amberley*
15	Diblasus grevensis	c. m., *Clayton Tunnel*

Case 4.

Class—Polyzoa.

1	Tamenea cretacea Figured by Dixon	u. c., *Seaford*
2	Holostoma contingens Fig.	u. c., *Brighton*
3	Homœosolen ramulosum	u. c., *Brighton*
4	Desmeopora semicylindrica (Dixon)	u. c. *Seaford*
5		u. c., *Seaford Cliff*
6		u. c , *Woolwich, Kent*
7		u. c., *Brighton*
8		u. c., *Brighton*
9		u. c., *Brighton*
10		u. c., *Brighton*
11	Desmeopora	u. c., *Seaford Cliff*
12	Alecto ramea (Dixon)	u. c., *Brighton*
13	Alecto ramea (Dixon)	u. c., *Brighton*
14	Alecto ramea (Dixon)	u. c., *Brighton*
15	Petalopora pulchella	u. c., *Seaford*
16	Petalopora pulchella	u. c., *Seaford*
17	Petalopora pulchella	u. c., *Seaford*
18	Petalopora pulchella	u. c., *Seaford*
19	Diastopora Sowerbii	u. c., *Brighton*
20	Diastopora Sowerbii	u. c., *Brighton*
21	Petalopora pustulosa	u. c., *Seaford*
22	Diastopora arboresens (Daubigny, Pl. 638)	u. c., *Seaford*
23		u. c., *Seaford*
24		u. c., *Brighton*

25		u. c., *Seaford*
26		u. c., *Brighton*
27		u. c., *Seaford*
28		u. c., *Brighton*
29	Flustra urelagans (Dixon)	u. c., *Seaford*
30	Flustra urelagans (Dixon)	u. c., *Seaford*
31	Flustra urelagans (Dixon)	u. c., *Seaford*
32	Reptomulticava (d'Orbigny)	u. c., *Brighton*
33	Reptomulticava (?) (d'Orbigny)	u. c., *Brighton*
34	Reptomulticava (?) (d'Orbigny)	u. c., *Brighton*
35	Reptomulticava (?) (d'Orbigny)	u. c., *Seaford*
36	Reptomulticava (?) (d'Orbigny)	u. c., *Seaford*
37	Reptomulticava (?) (d'Orbigny)	u. c., *Seaford*
38		u. c., *Seaford*
39		u. c., *Seaford*
40		m. c., *Lewes*
41		u. c., *Brighton*
42	Axogaster cretacea (Dixon)	u. c., *Seaford*
43	Filicrisina (d'Orbigny, C.P.L. 709)	m. c., *Lewes*
44	Semimulticlausa variabilis (d'Orb, Pl. 767)	u. c., *Brighton*
45	Lunulites (d'Orb)	u. c., *Worthing*
46	Lunulites (d'Orb)	u. c., *Worthing*
47	Lunulites (d'Orb)	u. c., *Brighton*
48	Lunulites (d'Orb)	u. c., *Worthing*
49		u. c., *Brighton*
50		u. c., *Seaford*
51		u. c., *Seaford*
52		
53		u. c., *Seaford Cliff*
54		l. c., *North Stoke, near Arundel*

55 l. c., *North Stoke, near Arundel*
56 l. c., *Glynde*

Case 4.

FOSSIL SPONGES.

Class—Protozoa.

1 Paramoudra Minima — m. c., *Lewes*
2 Paramoudra Minima — m. c., *Lewes*
3 Paramoudra Minima — c. m., *Southeram*
4 Paramoudra Minima — u. c., *Brighton*
5 Paramoudra Minima
6 Paramoudra Minima — m. c., *Lewes*
7 Paramoudra Minima — u. c., *Brighton*
8 Paramoudra Minima — m. c., *Lewes*
9 Paramoudra Minima — m. c., *Lewes*
10 Paramoudra Minima — u. c., *Brighton*
11 Paramoudra Minima — u. c., *Brighton*
12 Paramoudra Minima
13 Paramoudra Minima
14 Paramoudra Minima — l. c., *Southeram*
15 Paramoudra Minima — u. c., *Brighton*
16 Paramoudra Minima — u. c., *Brighton*
17 Paramoudra Maxima — u. c., *Norwich*
18 Paramoudra Maxima — u. c., *Norwich*

Case 3g.

19 Spongia — m. c., *Malling*

20	Brachiolites digitatus	c. m., *Clayton*
21	Brachiolites	c. m., *Clayton*
22	Brachiolites	c. m., *Glynde*
23	Brachiolites	c. m., *Glynde*
24	Brachiolites elegans	m. c., *Malling*
	Stem enveloped in flint.	
25	Brachiolites	m. c., *Malling*
26	Brachiolites tubulata	m. c., *Malling*
27	Brachiolites tubulata	m. c., *Malling*
28	Brachiolites labrosus	c. m., *Amberley*
29	Brachiolites	m. c., *Malling*
30	Brachiolites	(?)
31	Brachiolites	m. c., *Malling*
32	Brachiolites	(?)
33	Brachiolites convolutus	m. c., *Malling*
34	Brachiolites angularis	m. c., *Malling*
35	Brachiolites racemosus	u. c., *Brighton*
36	Brachiolites	m. c., *Malling*
37	Cephalites guttatus	m. c., *Malling*
38	Cephalites guttatus	m. c., *Malling*
39	Cephalites capitatus	c. m., *Clayton*
40	Cephalites longitudinalis	m. c., *Malling*
41	Brachiolites angularis	u. c., *Brighton*
42	Brachiolites angularis	
43	Brachiolites angularis	m. c., *Glynde*
44	Brachiolites angularis	m. c., *Glynde*
45	Cephalites bullatus	l. c., *Glynde*
46	Cephalites catenifer	m. c., *Malling*
47	Cephalites longitudinalis	m. c., *Malling*
48	Cephalites paradoxus	m. c., *Malling*

49 Cephalites constrictus — c. m., *Clayton*
50 Cephalites constrictus — l. c., *Glynde*
51 Cephalites constrictus — l. c., *Glynde*
52 Cephalites compressus
53 Brachiolites angularis — *Brighton*, c. m., *Clayton*
54 Cephalites — *Brighton*

Case 3h.

55 Ventriculites — m. c., *Lewes*
In flint.
56 Ventriculites tenuiplicatus — m. c., *Lewes*
In chalk.
57 Ventriculites tenuiplicatus — m. c., *Lewes*
In chalk.
58 Ventriculites decurrens — m. c., *Lewes*
In chalk.
59 Ventriculites — m. c., *Lewes*
Showing root, in chalk.
60 Vertriculites — c. m., *Glynde*
In chalk.
61 Ventriculites impressus — c. m., *Glynde*
In chalk
62 Ventriculites impressus — m. c., *Lewes*
In chalk.
63 Ventriculites — m. c., *Lewes*
64 Ventriculites
Showing root, in flint.
65 Ventriculites — m. c., *Lewes*
Cast, in chalk.

66 Ventriculites — m. c., *Lewes*
67 Ventriculites — m. c., *Lewes*
68 Ventriculites — u. c., *Brighton*
69 Ventriculites
Root, in flint.
70 Ventriculites
Root, in flint.
71 Ventriculites
Root, in flint.
72 Ventriculites — m. c., *Malling*
In chalk.
73 Ventriculites — m. c., *Malling*
In chalk.
74 Ventriculites — m. c., *North Stoke*
In chalk.
75 Ventriculites impressus — m. c., *Malling*
76 Ventriculites — m. c., *Malling*
77 Ventriculites — m. c., *Malling*
78 Ventriculites bicomplicatus — c. m., *Clayton Tunnel*
79 Ventriculites — c. m., *Clayton Tunnel*
80 Cephalites capitatus — u. c., *Brighton*
81 Ventriculites — m. c., *Malling*
82 Ventriculites — m. c., *Malling*
83 Ventriculites — m. c., *Malling*
84 Ventriculites

Case 10.

85 Ventriculites radiatus — m. c., *Lewes*
Encased in flint.

86	Ventriculites radiatus Encased in flint.	m. c., *Lewes*
87	Ventriculites impressus (?)	*Heytesbury*
88	Ventriculites impressus (?)	
89	Ventriculites impressus (?)	*Heytesbury*
90	Ventriculites impressus (?)	*Heytesbury*
91	Ventriculites impressus (?)	*Heytesbury*
92	Ventriculites impressus (?)	*Heytesbury*
93	Ventriculites impressus (?)	*Heytesbury*
94	Ventriculites impressus (?)	*Heytesbury*
95	Ventriculites impressus (?)	*Heytesbury*
96	Ventriculites impressus (?)	*Heytesbury*
97	Ventriculites	*Heytesbury*
98	Ventriculites	*Heytesbury*
99	Ventriculites	*Heytesbury*
100	Ventriculites	*Heytesbury*
101	Ventriculites	*Heytesbury*
102	Ventriculites	*Heytesbury*
103	Ventriculites	*Heytesbury*
104	Ventriculites	*Heytesbury*
105	Ventriculites	*Heytesbury*
106	Ventriculites	*Heytesbury*
107	Ventriculites	*Heytesbury*
108	Ventriculites	*Heytesbury*
109	Ventriculites	*Heytesbury*
110	Ventriculites simplex	m. c., *Malling*
111	Ventriculites simplex	m. c., *Malling*
112	Ventriculites simplex	m. c., *Malling*
113	Cephalites	m. c., *Malling*
114		m. c., *Southeram*

115		
116		m. c., *Malling*
117	Ventriculites	
118	Ventriculites cavatus	
119	Ventriculites radiatus	*Heytesbury, Wilts*
120		u. c., *Brighton*
121		(?)
122		*Wiltshire*
123		(?)
124		u. c., *Brighton*
125	Ventriculites Root of.	
126	Coscinopora perforata	u. c., *Brighton*
127	Coscinopora perforata	u. c., *Brighton*
128		(?)
129	Coscinopora perforata	
130	Coscinopora perforata	
131		m. c., *Amberley* Cast of sponge in sulphide of iron.
132		m. c., *Amberley* Cast of sponge in sulphide of iron.
133	Choanites Imbedded in flint.	m. c., *Southeram*
134	Choanites Imbedded in flint.	
135		(?)
136	Choanites Konigi	m. c., *Houghton*
137	Choanites Konigi	*Brighton Beach*
138	Choanites Konigi	*Brighton Beach*
139	Choanites Konigi	*Brighton Beach*

140 Choanites Konigi — *Brighton Beach*

141 Choanites Konigi

Case 7.

142

143

144

145

146

147 Alcyoniform body (?)

Section of mass of chalk that probably owes its form to the presence of an alcyoniform creature.

148 Alcyoniform body

Closely resembling No. 147, is placed underneath Table Case 29; part of it has been converted into iron pyrites (sulphide of iron).

149 Alcyoniform body

Apex of.

150 Alcyoniform bodies

Casts of.

The rest of this Case is filled with a series of casts of sponges in flint, that are for the most part covered with a coating of chalcedony; the more beautiful Brighton pebbles consists of the section of a sponge and its chalcedonic covering.

Case 10.

WAIFS FROM THE LAND, IN CHALK.

1 Fragment of fossil drift-wood — *Lewes*

Imbedded in flint.

2 Fragment of fossil drift-wood — *Brighton*

Imbedded in flint.

3 Fragment of fossil drift-wood — m. c., *Malling*

Imbedded in flint.

4 Fragment of fossil drift-wood (?)
Imbedded in flint.

5 Fragment of fossil drift-wood (?)
Imbedded in flint.

6 Fragment of fossil drift-wood *Lewes*
Imbedded in flint.

7 Fragment of fossil drift-wood *Lewes*
Imbedded in flint.

8 Fragments of wood u. c., *Brighton*
Perforated by teredo shells; which prove that it was drifted before it was imbedded in chalk.

9 Fragments of wood c. m., *Clayton Tunnel*
Perforated by teredo shells.

10 Fragments of wood l. c., *Southeram*
Perforated by teredo shells.

11 Fragments of wood m. c., *Malling*
Perforated by teredo shells.

12 Fragments of wood u. c., *Brighton*
Perforated by teredo shells.

13 Fragment of wood u. c., *Brighton*
Imbedded in chalk.

14 Coniferæ l. c., *Glynde*
(?) Fragments of needles of pines.

15 Coniferæ m. c., *Malling*
(?) Fragments of needles of pines.

16 Coniferæ l. c., *Glynde*
(?) Fragments of needles of pines.

Drift-stones, carried probably by seaweed, possibly by ice, from the shore into the ocean, at the bottom of which the chalk was formed. They all consist of paleogoic rocks, such as may be found in the Channel Islands, the opposite coast of France, Devonshire, Wales, or Scotland.

17 Large pebble of quartzite m. c., *Houghton*
Rounded by the waves, and bearing on its water-worn surface shells and polyzoa; among the former is a valve of spondjlus latus.

18 Fragment of quartz — l. c., *North Stoke*

19 Fragments of quartz — c. m., *Clayton*

Partly encrusted with green sand; it bears an oyster on its surface.

20 Pebble of Lydian stone — c. m., *Clayton*

21 Pebble — c. m., *Clayton*

22 Clay slate — l. c., *North Stoke*

23 Clay slate — l. c., *North Stoke*

24 Clay slate — l. c., *Lewes*

25 Pebble — l. c., *Lewes*

26 Trappean pebble — l. c., *Lewes*

27

Case 12.

MINERALS IN CHALK.

A series of Specimens showing various minerals found in Chalk, and different forms assumed by Flint.

1 Various forms of iron pyrites (sulphide of iron)

2 A fragment of nodule of iron pyrites, containing selenite — l. c., *Ditchling*

Very rare.

3 Interior of sea-urchin, partially changed into sulphide of iron

4 Various forms assumed by carbonate of lime when crystallized

5 Websterite, or subsulphate of alumina

A series of specimens showing the various modes of silicafication.

(A fine series of this rare mineral is deposited under Table Case 2a, b.)

6 The inner whorls of an ammonite covered with and converted into flint

It is a remarkable instance of the frequent obliteration of structure caused by silicafication; had not the rest of the ammonite been found, it would have been impossible to prove that this had ever formed part of a shell.

7 Banded flint
8 Banded flint
9 Flint formed round a mass of wood
10 Flint formed round sponge
11 Flint formed round sponge
12 Flint accumulated round sea-urchin (ananchytes ovata)
13 Flint accumulated round sea-urchin (ananchytes ovata)
14 Spondylus spinosus imbedded in flint.

The shells and sea-urchins most probably were covered with flint, because they were first of all overgrown with sponges.

15 Fragmacone of belemnite perforated by cliona, and covered with flint
16 Flints stained with peroxide of iron
17 Flints stained with peroxide of iron
18 Flints stained with peroxide of iron
19 Flint stained with peroxide of manganese and iron, which assumes a moss-like form
20 Fragment of flint illustrating conchoidal fracture

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