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J. S. Gray

SYNOPSIS

OF

THE CONTENTS

OF THE

BRITISH MUSEUM.



FORTY-FOURTH EDITION.

LONDON:

PRINTED BY

G. WOODFALL AND SON, ANGEL COURT, SKINNER STREET.

1842.

THE present Synopsis is merely intended for the use of Persons who take a cursory view of the Museum. The following is a list of the more ample descriptions of several parts of the Collection, most of which may be purchased at the Museum, and of Messrs. Longman and Co., Payne and Foss, W. Pickering, and D. Colnaghi.

- Description of the Ancient Terracottas, by T. Combe, 1810, 4to. £1 11s. 6d.
----- Marbles, Pt. 1, by the same, 1812, 4to. £1 5s.
----- Part 2, 1815, 4to. £2 12s. 6d.
----- Part 3, 1818, 4to. £1 10s.
----- Part 4, 1820, 4to. £2 2s.
----- Part 5, by E. Hawkins, 1826, 4to. £1 1s.
----- Part 6, by C. R. Cockerell, 1830, 4to. £2 2s.
----- Part 7, by E. Hawkins, 1835, 4to. £2 2s.
----- Part 8, by the same, 1839, 4to. £3 3s.
- Veterum Populorum et Regum Numi qui in Museo Britannico adservantur, ed. Taylor Combe, 1814, 4to. £4 4s.
- Catalogue of the Anglo-Gallic Coins, by Edward Hawkins, 1826, 4to. £1 4s.
- Nummi Veteres in Museo R. P. Knight asservati, ab ipso ordine geographico descripti, 1830, 4to. £1 15s.
- Catalogue of Printed Books, by H. Ellis, and Rev. H. H. Baber, 1813—1819, 7 vol. 8vo. £4 4s.
- , Vol. 1, folio, 1841, 18s. sheets; 20s. boards.
- the Cottonian MSS. by J. Planta, 1802, fol.
- Harleian MSS. by H. Wanley and Rev. R. Nares, 1808, 3 vol. fol. With a 4th Vol. of Index.
- MSS. of the King's Library, by D. Casley, 1734, 4to.
- MSS. heretofore undescribed, by Rev. S. Ayscough, 1782, 2 vols. 4to.
- MSS. formerly F. Hargrave's, by H. Ellis, 1818, 4to. 12s.
- Lansdowne MSS. by F. Douce and H. Ellis, 1819, fol.
- Fac Simile of the Codex Alexandrinus, 3 vol. fol. £18.
- Catalogue of the Geographical and Topographical Collection attached to the Library of King George III. 1829, 2 vol. 8vo. £1 4s.
- Catalogue of the Arundel Manuscripts, fol. 1834. £1 8s.; or with coloured Plates, £4 14s. 6d.
- Burney MSS. fol. 1840, 18s.; or with coloured Plates, £3 3s.
- Index to the Arundel and the Burney MSS. fol. 1840, 15s.
- Catalogus Codicum Manuscriptorum Orientalium qui in Museo Britannico asservantur. Pars Prima, codices Syriacos et Carshunicos amplectens. fol. 1838. 12s.
- Description of the Greek Papyri in the British Museum. Part 1. 1839, 4to. 10s.
- Select Papyri in the Hieratic Character, Plates I—XXXIV. fol. 1841. £1 1s.

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*IN the ENTRANCE COURT of the Museum, sheltered by the Colonnade,
are*

*The remains of a Canoe found in 1834 at South Stoke, in Sussex,
presented by the late Earl of Egremont;*

*A large wooden Idol from Otaheite, presented by Mr. W. Howard;
and*

*A sepulchral Stéle, with a few architectural fragments, part of the
Elgin Collection.*

*Near the steps of the main Building, fenced in, are placed the Skulls
and lower Jaws of the Spermaceti and Whalebone Whales, from the
North Sea; together with several bones of the Southern Whalebone
Whale, from the Cape of Good Hope.*

SYNOPSIS

OF THE

CONTENTS OF THE BRITISH MUSEUM.

THE FOUNDATION of the BRITISH MUSEUM originated with the will of Sir HANS SLOANE, who during a long period of practice as a physician had accumulated, in addition to a considerable Library of Books and Manuscripts, the largest collection of objects of Natural History and Works of Art of his time. These he directed should be offered after his death, which took place in 1753, to Parliament. The offer was accepted: and the Act of 26 Geo. II., which directed the purchase, also directed the purchase of the Harleian Library of Manuscripts; and enacted that the Cottonian Library, which had been given to the Government for public use in the reign of Will. III., should, with these, form one General Collection.

In the spring of 1754 the mansion in Great Russell Street, then known as Montagu House, was purchased as a repository for the whole. Between 1755 and 1759 the different Collections were removed into it, and it was determined that the new Institution should bear the name of the BRITISH MUSEUM.

Till the arrival of the Egyptian Antiquities from Alexandria, in 1801, Montagu House was competent to the reception of all its acquisitions. The Egyptian Monuments, most of them of too massive a character for the floors of a private dwelling, first suggested the necessity of an ad-

ditional building, rendered still more indispensable by the purchase of the Townley Marbles in 1805. A Gallery adequate to the reception of both was completed in 1807; after which, although the Trustees meditated, and had plans drawn for new buildings, none were undertaken till 1823, when, upon the donation from his Majesty King George IV. of the Library collected by King George III., the Government ordered drawings to be prepared for the erection of an entire new Museum, a portion of one wing of which was to be occupied by the recently acquired Library. This wing, on the Eastern side of the then Museum Garden, was finished in 1828; and the Northern, and a part of the Western compartment of a projected Square have been since completed. The Townley Gallery at present joins on to the centre of the Western compartment; and Montagu House, the old building of the Museum, continues to form the general front.

On entering the Gate of the Museum from Great Russell Street, a quadrangle presents itself, with an Ionic colonnade on the South side, and the main building on the North; the side buildings being allotted for the dwellings of the Officers.

The House itself measures two hundred and sixteen feet in length, and fifty-seven in height to the top of the cornice. The architect, Peter Puget, a native of Marseilles, and an artist of the first eminence in his time, was sent over from Paris by Ralph, first Duke of Montagu, for the sole purpose of constructing this splendid mansion. It was the repetition of a building first designed in 1674 by Dr. Hooke, which was destroyed by fire in 1686.

GROUND FLOOR.

THIS floor, consisting of sixteen rooms, originally contained the Library of Printed Books*, now removed to the North side of the New Square. These rooms are at present used as store and sorting rooms.

The Entrance Hall contains

A statue in marble of Shakspeare, by Roubilliac. *Bequeathed to the British Museum, after the death of his Widow, by David Garrick, Esq.*

A statue of the Hon. Anne Seymour Damer, holding in her hands a small figure of the Genius of the Thames. *Presented by the late Lord Frederick Campbell.*

A gilt figure of Gaudma, a Burmese idol; and the symbolical representation of his foot. *Both presented by Capt. Marryat, R.N.*

Against the pier between the iron Gates which lead to the staircase, is a statue of the late Sir Joseph Banks, by Chantrey. It represents him seated in an arm-chair, holding a scroll in his left hand. The figure is raised upon a marble pedestal. *Presented by the personal Friends, at whose expense the statue was made.*

On the other side of the pier, is a specimen of Hindoo sculpture, discovered in 1809, near the banks of the sacred river Nerbudda; a fragment, probably, of an ancient temple. *Presented by D. D. Inglis, Esq.*

Before the window on the left, adjoining the messenger's small room, is a Hippopotamus. *Presented by the Trustees of the Hunterian Collection of the Royal College of Surgeons.*

By the side of the staircase, in the passage leading to the Gallery of Antiquities, are three specimens of the genus Rhinoceros, from Southern Africa,—viz., R. Ketloa—R. Africanus, young—and R. Simus.

The landscapes and architectural decorations of the Great Staircase are by Jacques Rousseau, whose skill in perspective was held in high estimation. The paintings on the ceiling, representing Phaëton petitioning Apollo for leave to drive his chariot, are by Charles de la Fosse, who, in his time, was deemed one of the best colourists of the French school.

On the first landing-place, is a Llama from South America, where it is used as a beast of burthen. *Presented by Charles Darwin, Esq.*

Above the Llama is a specimen of the Stag (*Cervus elaphus*, Linn.). *Presented by the Earl of Derby.*

On the second landing-place are a Musk Ox, from Melville Island, and a Polar Bear; procured during the Arctic expeditions, and *presented by the Lords of the Admiralty.*

Over the Musk Ox is a specimen of the Striped Antelope of Penant, from the Cape of Good Hope; and on the Polar Bear's case, the Elk from Sweden. *Both presented by the Trustees of the Hunterian Collection.*

Between these animals stands the trunk of an arborescent Fern (*Al-sophila Brunoniana* of Wallich), forty-five feet in height, from the

* An Alphabetical Catalogue of this Library was printed in the year 1787, in two volumes folio; and another published, in seven volumes 8vo, 1813—1819, containing, as far as possible, the accessions to the latter year. A Catalogue of the Royal Library, given to the Museum in 1823, was printed in five volumes folio, and privately distributed, by order of his Majesty King George the Fourth. A new and more comprehensive Catalogue of the whole Library is preparing. One volume, comprising the Works under the letter A, has been published.

mountains to the eastward of Silhet in Bengal. *Presented by the East India Company.*

By the side of this is placed a transverse section of the stem of another arborescent Fern (*Dicksonia antarctica*). *Presented by W. J. Broderip, Esq.*

Also a specimen of a species of Palm (*Euterpe oleracea*, Mart.), native of South America. *Cultivated and presented by Messrs. Loddiges.*

On the upper landing-place are a male and female Giraffe, or Camelopard, from South Africa, *presented by W. J. Burchell, Esq.*; and a smaller Giraffe, *presented by the Trustees of the Hunterian Collection.* The last mentioned Giraffe was brought to England by Mr. Paterson, and is the first ever seen in this country.

HENRY ELLIS.

March 4, 1842.

UPPER FLOOR.

FIRST ROOM.

THE ceiling of this room, representing the fall of Phaëton, was painted by Charles de la Fosse.

The upright Cases round the room contain a series of artificial Curiosities from the less civilized parts of the world.

Case 1. Esquimaux dresses, from Winter Island; a whalebone net, used by the Esquimaux for laying under their beds; a wooden bowl; a cup and spoon made of the horns of the musk ox; a bone ornament, from Savage Island; some Esquimaux arms; a small basket; a pair of eye-shades formed of bone; a bow-string; a culinary vessel and lamp, cut out of stone. Over the Cases is placed a sledge from Baffin's Bay, which, together with the rest of these articles, was brought to England by Capt. Sir Edward Parry, in 1822.

Case 2. Esquimaux dresses from Point Hope; a steersman's cap, from West Georgia; men's boots, and an Esquimaux landing net, formed of whalebone, from Kotzebue Sound; a band, worn as a *maro*, from Egmont Island; a pair of women's boots, from Cape Thomson; a dart-thrower, from Point Barrow; and a richly carved paddle, from Otaheite.

Case 3. Various specimens of cloth, formed of the Paper Mulberry, from the Sandwich Islands, some of them with stamped patterns; a harpoon line, made of the skin of a Wallruss, and a sail of the intestines of the same animal, from Kotzebue Sound; two large teeth of the Wallruss, from Behring's Straits; a stone club used for bruising nuts, and three fine mats, from Egmont Island; a cap, ornamented with tufts of feather and hair; several bows and arrows, some of the latter tipped with obsidian and bone, from California; and a small harpoon, with a moveable tip, for spearing fish, from Point Barrow.

On the sides of these Cases, near the door, are placed three spears from Tongataboo, a spear from the interior of Chili, and a paddle from Egmont Island. Over these cases are several other spears, arrows, and harpoons, from the Pacific Ocean. These articles and those in Cases

No. 2 and 3, were collected during Capt. Beechey's voyage of discovery, A.D. 1825—1828.

Case 4. A seal-skin dress; a dog's harness for a sledge, and the handle of an instrument for throwing bird-darts, from the coast of Labrador; a pair of boots ornamented with leather of different colours, with divided toes; a leathern whip, and some arrows from the interior of Peru.

Case 5. A quiver formed of palm leaves, containing small poisoned arrows; a bag of netted twine, with bombax and some poisoned arrows from the Indians of the Marañon. *Presented by Lieut. Henry Lister Maw, R.N.* Various wampum belts, and a pair of eye-shades, formed of wood. *From the Sloane Collection.*

A straw hat, a *poncho*, or cloak, leggings, shoes, spurs, and stirrups. *From Chili. Presented by — Sinclair, Esq.*

A hammock, from Africa, *presented by H. Bright, Esq.*; and a pair of sandals, from Ashantee, *presented by Mr. Fenton.*

Case 6. A piece of cloth, $16\frac{1}{4}$ feet long by $7\frac{1}{4}$ feet wide, decorated with borders and various stellated patterns, produced by discharging the deep colour of the indigo; it is woven in narrow strips, each three inches wide. Another piece of cloth, formed of similar strips, but the check pattern produced in the weaving. A piece of very narrow cloth, of the original width before it is made up for use. From Africa. *Presented by Major Denham and Captain Clapperton.*

A Foulah cloak, formed of very narrow strips of cloth, a cap, and a musical instrument, from the neighbourhood of Sierra Leone. *Presented by J. Whitfield, Esq.*

A cap, made of a fine mat, from the Cape of Good Hope. *Presented by Captain Duncan, 1780.*

Several pieces of cloth formed of narrow strips on a white ground; a white cloth, painted with black patterns; two others made of different coloured stripes; and a single stripe formed of three different colours; a piece of very fine matting; a child's umbrella, or sun-shade, covered with various coloured and printed cottons, and stripes of woollen cloth, with a carved wooden top; an iron padlock and keys; four variously shaped earthenware tobacco-pipe heads; a small earthen pan, with a deeply notched edge; a small basket; a string of beads resembling spangles, formed from shells; a fly-flapper, made from hair; a shuttle and reel of thread belonging to the loom; a musical instrument; a leathern pouch, surrounded by stripes of leather, and worked with leather and cloth in different patterns; a short dagger, and a wooden handle and sheath, ornamented with brass; a pair of worked sandals; two arrows with steel heads; a large leathern cushion, and a stool of carved zesso wood. On the top of the Case is a loom for weaving the narrow cloth, used by the Africans. All from Ashantee. *Presented by T. E. Bowdich, Esq., and described in his Travels, p. 307, &c.*

Case 7. Two baskets made of a species of *juncus*; two water-baskets made of the bark of a birch; a bladder, containing a pigment used by the natives; a quiver, some arrows, and a bow; the rope of a canoe; a necklace formed of shells; and an axe, the iron of which was probably obtained from an English or American ship, from Terra del Fuego.

Case 8. A coat of mail formed of seven folds of horse skin, used by the Araucarian Indians on the west coast of South America, taken from

the body of an Indian who was shot by a party of Chilian Indians, sent to disperse an incursion of the native tribes; a pair of spurs; a couple of balls, united by a cord, which are used to destroy the wild animals; and a pair of rattles; all from the coast of Patagonia.

Over these Cases are two fishing spears from Terra del Fuego; a spear from the west coast of Australasia; a fish-gig from the South Sea Islands. Also a canoe, with its paddles, from Behring's Straits.

Presented by Capt. Beechey, R.N.

The whole of the contents of the Cases 7 and 8, and the spears over them, were collected by *Capt. P. P. King*, in his late voyage, and *presented by him* to the British Museum.

Case 9. Shelves 1 and 2. Vessels in various forms, from tombs of the aboriginal Peruvians. *Chiefly from the Sloane and Towneley Collections.*

Shelves 3, 4, 5. Various objects, chiefly collected in Mexico, and purchased at the sale of the Mexican Museum belonging to Mr. Bullock; they consist of small statues formed of various stones, and of rude workmanship; a mask of stone; two statues and five fragments of terracotta, found on the mountains of Tezeossingo, the pyramids of St. Taun de Toetiutican; an adze; a heart-shaped ornament of serpentine, with engraved characters resembling hieroglyphics; two vases of alabaster, one with the head and arms of a monkey sculptured on it, the other with the head, tail, and wings of a cock; a small terracotta statue of a sitting figure, similar to an Egyptian sphynx; a head of a boy in basalt; a small vase-shaped statue; an Azteek mirror, made of a large plate of obsidian, polished on both sides; a large double bottle of black earthenware, one of the bottles with the head of a dog, the other with that of a bird; a small earthen vessel in the form of a dog; several knives formed of obsidian, with two of the larger pieces from which they have been split; an incense-burner in the form of an owl; a bust of a female sculptured in lava, with a turreted head-dress, having some resemblance to the Isis of the Egyptians; another of a priest with a mitre-shaped cap decorated with jewels and a feather, and with long pendant ear-rings; the greater part of the body is covered by a large snake, its head being on the right side of the figure; the eyes of this bust were probably supplied by jewels; a statue of an Azteek princess in a sitting posture; her feet are bent under her, and her hands rest upon her knees; a small serpent idol, probably one of the Penates, or household gods*.

Case 10. Shelf 1. Cloth which enveloped the dead bodies of ancient Peruvians; cups, a harpoon, sling, fishing-line, fishes' eyes, basket, and Indian corn; from the tombs of children of the ancient Peruvians. The globular vessels were placed, with Indian corn, under the breasts of the dead bodies. *Presented by the Rev. W. V. Hennah, 1828.*

Shelves 3 and 4. Three mortars, silver images, and vessels; from the tombs of aboriginal Peruvians in the island of Titicaca. *Collected by J. Pentland, Esq., and presented by the Right Hon. the Earl Dudley.* Five earthen images, from tombs in Vera Cruz. *Presented by G. A. Princep, Esq., 1821.*

Shelf 2. Seven vessels from tombs of aboriginal Peruvians of mari-

* There are some other Mexican sculptures at present in the Ante Room, next the Elgin Marbles, which are too heavy to be exhibited here.

time provinces on the coast of the Pacific. One vase from Tiaquaucó. *Presented by the Earl Dudley, from Mr. Pentland's Collection.*

Shelf 5. Stone basin, ornamented with serpents; a smaller basin ornamented in the angles, at the outside, by four animals; a small vessel in the form of a Llama, from the Temple of the Sun at Cusco. *Presented by the Earl Dudley, from Mr. Pentland's Collection.* A vessel in the form of a human figure. *From the Sloane Collection, No. 404.*

The remaining Cases contain articles from the west coast of North America and the South Seas, chiefly *presented by Sir Joseph Banks, Captain James Cook, R.N., and Archibald Menzies, Esq.* Many of them are figured in Captain Cook's Voyages.

Case 11. Fishing implements from Nootka Sound and Oonalashka; harpoons; lines made of sinews, and of sea-weed (a species of *Fucus*), &c. Models of fishing-boats, &c.; waterproof fishing-jackets, made of the intestines of the whale, from Nootka Sound.—Several caps of wood, representing heads of beasts; a bird's head of wood, ornamented with feathers, &c.; a wooden coat of armour; birds made of wood, hollow, and containing stones, used as rattles; from Nootka and Oonalashka.

Case 12. Warlike implements, and various tools, clubs, adzes, &c.; Patoo-patoos of wood and bone, &c. Various domestic utensils from the same part of the coast. A screen made of the feathers of an eagle; knives; spoons; eating-bowls; bread made of the root of the Casada tree (a species of *Jatropha*), with an unprepared piece of the latter.—Caps of various shapes and colours, some with representations of the whale fishery; combs, &c.; from Nootka and Oonalashka.

Case 13. Baskets made in various parts of the west coast of North America.—Mattings, &c. The inner bark of a species of cypress (*CUPRESSUS thuyoides*) in its different stages of preparation, for making mats, articles of dress, &c.; a garment made of this bark by the natives of Banks's Island.

Case 14. Specimens of sculpture; imitations of the human form; masks, &c.

Cases 15 and 16. Otaheite winter and summer cloths, made of the bark of the paper mulberry (*Broussonetia*), and variously dyed.—A mourning dress; a breast-plate made of feathers, &c., used in war.

Case 17. Coarse mats for sails, &c. Basket-work and cordage.—Ornamental mats made of a kind of flag; a dancing apron, &c., from Otaheite.

Case 18. Fishing implements. Various utensils made of a basaltic stone; rasps made of shagreen; wooden pillows; adzes of a kind of jade called axe-stone, &c.—Ornamental carvings; cloth-beater; plaited hair; tattooing instruments; a planting spade made of a fragment of a shield; nose flutes; a bread fruit. Various stone adzes, hatchets, &c.

Cases 19 and 20. Large cloaks; aprons; helmets; hats; distorted human figures; &c., made of feathers. From the Sandwich Islands.

Case 21. Various specimens of mats and cloths; gorgets made of red seeds, &c. Cordage; slings; cloth-beaters; hair for ornamental head-dresses. Fishing-hooks made of bones and shells; saws made of sharks' teeth; and other tools. From the Sandwich Islands.

Case 22. Articles of ornament; bracelets made of boars' tusks,

and of tortoise-shell; assortment of shells and seeds, &c. Necklaces, and other ornaments. Coverings for the legs, composed of shells, seeds, and teeth, used in dancing; round mirrors made of a black slaty stone, which is wetted when used; quoits, weights, &c. From the Sandwich Islands. Small cloaks, a head-dress, and other ornaments made of feathers; a specimen of the species of creeper (*Certhia vestitaria*) which supplies the red feathers. Fans; wooden bowls supported by grotesque figures for ornament. Mostly from the Marquesas.

Case 23. Specimens of cloth, matting, and cordage. Basket-work, plain and ornamented; sun-screens,—ornamental basket-work; various pouches; a dancing-dress made of the fibres of the bark of cocoa-nuts.—From the Friendly Islands.

Case 24. Fishing implements, hooks, and various nets; models of canoes; adzes made of shelves; tattooing instruments; rasps, &c. Various articles of ornament; necklaces made of shells, seeds, &c.; combs; bracelets; kernels of a nut which, when burnt, yields a strong light. Aprons, and other ornaments, made of the thigh-bones of a small bird; nasal flutes; fly-flaps, a shuttle, &c. Various Cava bowls of wood, curiously carved; some earthen vessels, &c. From the Friendly Islands.

Case 25. Various specimens of matting and cordage, mostly made of the New Zealand hemp (*Phormium tenax*). Sundry woven articles; belts, &c. Fishing nets; hooks, cordage, &c. From New Zealand.

Case 26. Articles of ornament; combs, necklaces, &c. Specimens of carving in wood and bone; pipes, and other musical wind instruments. Warlike instruments; conchs used in war; clubs; saws made of sharks' teeth for dissecting the bodies of slain enemies; two human hands, being parts of the body of a slain enemy. Tools of various kinds, &c. Various wooden boxes, ornamented with carvings. Boat scoops, &c. From New Zealand.

In Case 26 is also a woman's bonnet, formed of tortoise-shell; from Navigators' Islands. It is composed of thin laminæ or plates of the shell, drilled and perforated, and then sewed or tied together. The back of this article has been decorated with portions of printed cotton. *It was presented in 1841, by her Majesty, together with the contents of Cases 33 and 34.*

CASES 33 AND 34 CONTAIN

OBJECTS FROM THE SOUTH SEA ISLANDS, PRESENTED BY HER MAJESTY, 1841.

CASE 33.

Contains specimens of native cloth, some used by females as girdles to incircle the waist, their only clothing in these Islands, of a maroon colour, or else cream white, with a pattern rudely delineated, representing crosses, stars, &c. Besides these are a shaggy white mat used for the same purpose made of fibre, and sleeping mats of rushes plaited to various degrees of fineness, from the islands of New Caledonia, Navigators' Islands, &c. At the top of the Case are various spears from New Caledonia, the Isle of Pines, &c.

CASE 34.

The upper part of this Case contains a short club, with conical and pointed head, from Tonga Island, and two others with heads in the shape of hawks' bills, from the Isle of Pines. At the side of the Case is another club. In the centre are bows and arrows from Euramengo or Erromango, and Navigators' Islands, and loops used in projecting spears from Navigators' Islands; beneath these are plumes of feathers and combs from the same locality; the leaf-shaped comb, and its companion, are from N. Hebrides, and the bamboo comb, for the back hair, from New Caledonia. The specimen of chiefs' hair, showing the mode in which it is worn by the natives, is from Navigators' Islands. Two fly-flaps, or fans of fibres, one stained black, from the same place, and a wood-smother, or plane, and two fans composed of fibres, one uncoloured, the other stained black, also from Navigators' Islands. A hatchet, with a celt-shaped blade, made from a piece of green jade, or nephrite, with a tobacco-pipe of wood from New Caledonia. In the lower division are two fishing lines and hooks, with artificial baits, from Navigators' Islands; a net, with broken shells instead of leads to sink it, and small bundles of the bark of a tree for floats, from New Caledonia. A wooden idol, the household god of a chief's family, from Navigators' Islands; and a jar, or vase of red earthenware, from Fidjee, or Feeje Island. At the sides of the Case are two clubs, one ornamented with a kind of native fringe of a red colour round the handle, and one spindle-shaped, from Tanna Island.

Over the Cases 11 to 14. Various missile weapons from different parts of the west coast of North America and the islands of the South Sea; harpoons, javelins, spears; a wooden shield; also various calabashes, some inclosed in wickerwork.

Over the Cases 18 to 20. Bows, arrows, quivers, drums, &c.

Round the Door opposite the Entrance. Various sorts of plain and carved clubs, maces, &c.

Over Case 21. A large Cava bowl; wooden pillows.

Over Case 23. A canoe composed of many pieces of wood sewed together, from Queen Charlotte's Island; various kinds of paddles, &c.

Over the Cases 25 and 26. A large wooden drum with lateral opening, made of the trunk of a tree; a wooden box, &c.

In the Window near the Entrance-door, are a *pacuna*, or tube for blowing the small poisoned arrows in Case 5; a bow of the Indians of the banks of the Ucayall; some spears made of palm wood and some of bow wood, and a bow from the Indians of the Marañon; and a wooden spear from the Napo. *Presented by Lieut. Henry Lister Maw, R.N.*

In the middle window of the Room, within a glazed frame, is one of the originals of *Magna Charta*, belonging to the Cottonian Library; at the side, there is an Engraving of it in fac-simile by Pine.

In the centre of the Room are two upright glazed Cases; one covers a Model of the middle part of the Bridge at Black Friars, with the frame work used in its construction, *presented in 1770 by the Bridge Committee of the City of London*; the other, Models of the Ships Victory and Mercury, *bequeathed in 1778 by Philip Denoyer, Esq.* Here is also an in-laid Indian Cabinet.

EDWARD HAWKINS.

April 20, 1842.

ROOMS II., III., IV.

Are devoted to Sir Joseph Banks's Herbarium, together with Sir Hans Sloane's and other collections of dried plants.

MAMMALIA SALOON.

The ANIMAL KINGDOM, the arrangement and distribution of which the collection is intended to illustrate, has been divided into four great divisions, characterized by their general form and organization; some, as for example, the divisions which include the largest animals, and which, from their apparent complexity, have been considered as the more perfect, are peculiar for being provided with hard parts to support their bodies and give attachment to their muscles, which give them great rapidity and certainty in their motions. They are generally provided with jointed members. In the *Vertebrated animals*, the hard part consists of an internal skeleton formed of bones united together by ligaments, allowing them to have motion one on the other; one series of these bones is always destined to protect the brain and bases of the nerves; hence the name of the group. The *Articulated animals*, on the contrary, have their bodies protected by a hard external skin, which is divided into rings which move one on the other and form an armour, as it were, to protect the flesh and nerves; to allow the body to increase in size, this hard skin is shed at different periods of their lives, a new one having been previously formed under it, which hardens on its being exposed to the air.

The animals of the other divisions are destitute of any jointed skeleton, being naked, or if protected they are only covered by a *shell* formed of the hardened excretions of the body, or by chalky matter deposited in the pores of the skin, or in the cells in the flesh of the body. They are divided into the molluscous animals, (*Mollusca*), which are generally free, gliding on a single central foot, with the head furnished with pairs of organs, and generally protected with a shell; while the radiated animals (*Radiata*) are so called because they have generally all their organs placed in rays round the digestive cavity, and supported by the calcareous matter which is deposited in the pores of the skin, or in the cells in the flesh of the body. This hard matter sometimes forms a solid mass, as in corals, and at others is in the form of variously shaped pieces placed side by side in the skin like tessellated pavement, arising from the chalky particles aggregating themselves as they are deposited round certain definite points.

The collection of ANIMALS is contained in two galleries, and for the convenience of exhibition is arranged in two series.—The *Vertebrated* animals and such as are kept in spirits are exhibited in the wall cases. The hard parts of the *Radiated*, *Annulose* and *Molluscous* animals, as shells, corals, sea eggs, starfish, crustacea and insects, are arranged in a series in the Table Cases of the several rooms.

The BEASTS or MAMMALIA form the first class of vertebrated animals, which may be characterized as warm-blooded animals, covered with hair, the females having peculiar organs which secrete milk for the nourishment of their young, which are born alive.

This class is divided into five orders, according to the forms of their teeth and modifications of their members, which are adapted to their different modes of life, and the kind of nourishment they are destined to subsist on: some being in the form of hands, others having clawed or hooped feet for walking, or fin-like paddles for moving in the water.

Some have three distinct kinds of teeth forming an uninterrupted series, as the *Primates*, which have a distinct opposable thumb on the fore extremities, and the *Feræ*, which are essentially carnivorous. Others have only two kinds of teeth, or if they have three, they are interrupted in their series; as the *Cete* or whales; the hooped quadrupeds, or *Ungulata*, which have large hoofs in the place of claws; and the *Glires*, which have claws and only two cutting teeth in each jaw. The FERÆ, CETE, and UNGULATA are in this Saloon; the PRIMATES and GLIRES being for the present placed (until the new rooms are built for them) in the third room of the Northern Zoological Gallery.

The second order of MAMMALIA, the rapacious beasts, or FERÆ, are characterized by having distinct and well defined cutting, canine, and grinding teeth, placed in a regular uninterrupted series. The feet are formed for walking, and furnished with claws; the thumbs of the front and generally of the hinder extremities being placed on the same line as the toes; their teats are placed on the abdomen, and the male organ is inclosed in a sheath.

This order is divided into several large families: some have six cutting teeth in each jaw, as the family of cats (*Felidæ*), and the bears (*Ursidæ*); and the rest have fewer or more than that number of cutting teeth, which are often of an anomalous shape, as the moles (*Talpidæ*), the kangaroos (*Macropidæ*), and the seals (*Phocidæ*).

The family of Cats (*FELIDÆ*, Cases 1—13) have three kinds of acutely lobed grinders. The carnivorous tooth is elongate with an internal lobe, and differently shaped from the tubercular grinders. The soles of the hind feet are often covered with hair, especially near the heel, when it is not applied to the ground in walking. Their head is roundish, and the end of their nose is slightly mobile.

The more carnivorous of these animals have only a single very small tubercular grinder in the upper jaw; their carnivorous tooth is large.

The carnivorous tooth of the milk series has a small central lobe instead of the large anterior internal lobe of the permanent series, and the carnivorous tooth of the latter series is behind the place of the one in the milk series, the situation of the latter being occupied by the hinder false grinder.

The tribe of Cats (*Felina*, Cases 1—7) have nearly equal legs, with five toes before and four behind, all armed with sharp retractile claws; their head is short and rounded, and they have four grinders above and three below. The lion (*Leo*) has the tip of the tail tufted, and the males are maned. The leopard (*Leopardus*) and cats (*Felis*) are maneless, and have an elongated cylindrical tail; the former have a round and the latter a long pupil. The lynxes, caracals, and chaus have short tails, and the ends of the ears pencilled like the squirrels. The hunting leopards (*Gueparda*) differ from the larger cats in being slender, higher on the legs, slightly maned, and having blunt claws.

The tribe of Hyenas (*Hyenina*, Case 8) have short hind legs and rather blunt claws. They have four toes on each foot, and five grinders

in the upper and four in the lower jaw, and a shortish muzzle, as the Hyena; some are brown and not banded when young.

The animals which generally live on carrion (*Necrophaga*) have one or two tubercular grinders in both the upper and lower jaw, and the carnivorous grinder is moderately sized.

The tribe of Civets (*Viverrina*, Cases 9—11) have an elongated compressed body with short legs; they have two tubercular grinders in the upper and one in the lower jaw, and the hinder one in the upper jaw is triangular transverse. The soles of their hind feet are often bald behind. Some, as the civets (*Viverra*), *Proteles* and *Prionodon*, have the toes quite free, the soles of the hind feet quite covered with hair, like the cats, the fur soft and the tail ringed. The genets (*Genetta*) have a narrow naked band to the heel. These are all confined to the Old World. The *Bassaris* of Mexico has the ringed tail and soft fur of the genet, but the soles of the heels are hairy. Others have rigid fur, their tails are not ringed, and the soles of their hind feet are more or less bald, as the ichneumon (*Herpestes*), the mungo (*Mungos*), the vansire (*Atilax*), *Ichneumia* and *Crossarchus*, which have five toes on each foot, and only differ in the form of the true grinders, and the number of the false grinders; the *Cynictis* has only four toes behind and five before; and the surricate (*Ryzæna*) has only four toes on each foot. In the others, the toes are short and partly webbed, the soles of the feet are nearly bald to the heel; their vent is simple with a bald secretory fold, between the thighs; their tail is often convolute, and the fur is soft with longer hairs, as the paradoxure (*Paradoxurus*), *Paguma*, *Hemigalea*, *Arctictis*, and *Cynogale*. These genera differ from one another in the form of the grinders. All the specimens of these genera (except *Paradoxurus binotatus* from Western Africa) are from India and the Islands of the Indian Archipelago.

The tribe of Dogs (*Canina*, Cases 12—16) have two small oblong tubercular grinders in each jaw; their bodies are compressed, and the legs high and subequal; the hinder tarsi are slender and hairy behind, as the dogs (*Canis*) which have a round pupil and a moderate cylindrical tail. The fox (*Vulpes*) has a bushy tail and an erect linear pupil. The *Cyon* differs from the dogs in having one grinder less. The *Otocyon* has the tail of the fox, but the ears are long, and it has one more grinder.

The tribe of Weasels (*Mustelina*, Cases 17—19) have an elongate body with very short legs, hence they have been called vermiform animals. They have only a single tubercular grinder in each jaw, the upper one being oblong, transverse, and bluntly tubercular. In some, the soles of the feet are hairy like the cats, the body is very slender, and the head small and roundish, as the marten (*Martes*), weasel (*Mustela*), pole-cat (*Putorius*), and zorille (*Zorilla*), which differ in the number of the false grinders and form of the tail and claws. Others have the soles of the feet more or less bald. They differ in the form of the tubercular grinders, as the taira (*Galera*), wolvereen (*Gulo*), the ratel (*Ratelus*), in all which the upper tubercular grinder is oblong transverse. *Gulo* has the soles of the feet quite covered with hair. The skunk (*Mephitis*) has the upper tubercular grinder nearly square and transverse; and in the conepat (*Marputius*), Telagon (*Mydaus*), sand-bear (*Arctonyx*), and badger (*Taxus*) the upper tubercular grinder is oblong longitudinal. Lastly, some have the feet webbed, (Case 19,) the head

and the base of the tail depressed, as the otter (*Lutra*), clawless otter (*Aonyx*), which have nearly equal sized feet; the *Pteronuræ* have large rounded hind feet, and a fin on each side of their tail; and the sea otters (*Enhydra*) have a short depressed tail and very large elongated hind feet; the latter have only four cutting teeth, like the seals, in their adult state.

The family of Bears (*URSIDÆ*, Cases 20 and 21) chiefly differs from the cats in the so-called carnivorous tooth being more bluntly tubercular, adapted for vegetable diet, and not distinguishable from the tubercular grinders; and the nose and lips are generally very mobile and the tongue elongated. Some, as the true bears, (*Ursina*), have only one very large oblong tubercular grinder in the upper jaw. Their feet are very broad and short, as the bears (*Ursus* and *Danis*), the sun bears (*Helarctos*), the sloth bear (*Prochilus*), and the sea bear (*Thalarctos*), which differ in the form of the claws and the hairiness and baldness of the soles of their hind feet. The sloth and sun bear have the power of lengthening their lips, and have a very long tongue; the sea bear has the feet covered with hair, except on a few spots; the latter lives chiefly on the ice of the polar regions. The other genera have an elongated tail. The coati (*Nasua*) and the racoon (*Procyon*) have large, oblong, squarish, transverse grinders. The nose is elongated and very mobile. The latter always wash their food before they eat it. The potto (*Cercoleptes*) has the elongated tongue of the sun bears, but their head is rounded and small, and the grinders are small and roundish. The wah (*Ailurus*) differs from all the former in having the soles of the feet covered with hair, like the true weasels, and the face short and rounded; they are brilliantly coloured, and live in the snowy regions of Nepal.

The remainder of the rapacious beasts have more or fewer than six cutting teeth in each jaw, generally the number is different in the two jaws, and the grinders are of only two sorts, false and tubercular. The section contains three families.

The family of Moles (*TALPIDÆ*, Case 22) have their grinders studded with sharp conical points. Their feet are short, and they place the whole sole of the foot on the ground when walking. They live principally on insects, and in cold climates they pass the winter, and in warm climates the summer, in a torpid state; they have no cæcum.

The more typical kinds have very short strong fore feet armed with large claws, with which they dig holes for themselves, in which they live and breed, as the moles (*Talpa*), which have a simple elongated muzzle, and six cutting teeth in the upper and eight in the lower jaw. The water moles (*Scalops*) have a depressed elongated muzzle. The golden moles (*Chrysochloris*) have a simple nose with a transverse bald muffle, and they are peculiar for the hair of their bodies having a metallic gloss. The starnosed moles (*Rhinaster*) have an elongated muzzle, like the moles, but the end of it is surrounded with small beards, hence their name; they have been called *Condylura*, because it was believed their tail was knotted, but this is only occasioned by the shrinking of the flesh in drying.

The remainder of the genera of this family have the feet formed for walking, like the other rapacious beasts. Some have two long cutting teeth in front, larger than the rest, as the tupais (*Tupaia*), which have a broad tail fringed on the side like the squirrel's, and like them live on

trees. The remaining animals, which live on the ground, have slender tails, covered with scales or scattered hair, as the elephant mice, (*Macroscelides*), which have very long noses like a trunk, and their hind legs long; they have the habits of jerboas, and are only found in Africa. The shrew mice (*Sorex*) and their allied genera have nearly equal legs and conical muzzles. The water shrews (*Crocidura*) have the sides of the feet fringed. The musk shrew (*Myogale*) has the nose rather more elongate and produced, and the foetid shrews (*Pachyura*) have a thick tail covered with scattered bristles. The bristly shrew (*Gymnura*) of Malacca has much the character of the shrew, but the back is covered with bristly hair, while the fur of the shrews and their allies is soft and velvet-like. The hedgehogs (*Erinaceus*) are easily known from the rest of these animals by their back being covered with rigid spines like a porcupine. The latter have the power of covering themselves almost entirely with this spiny coat when they roll themselves up. The Tenrecs (*Centetes*) differ from all the others in having small cutting teeth; they are covered with rather spiny bristles, but they do not roll themselves up like the hedgehogs. They sleep during the hot weather, and are confined to Madagascar, but have been naturalized in the Isle of France.

The family of Kangaroos (MACROPIDÆ, Cases 23—30) are peculiar for their young being nursed in a marsupial pouch on the belly of the mother, which is supported by two peculiar bones attached to the pubis. The thumbs of the hind feet are often distinct, opposable, and clawless.

The more typical kinds have two long shelving cutting teeth in the lower jaw, and six erect teeth in the upper. This division contains two groups; the first (*Phalangistina*, Cases 23 and 24) consisting of the animals which live on trees or bushes. They have the thumb of the hind feet well developed and opposable, and the toes separate. Some have the skin of the body expanded to enable them to jump better from tree to tree; they are easily distinguished by the form of their tail; thus in *Acrobates* it is pennated and flat; in *Petaurus* bushy and broad; and in *Petaurista* elongate and roundish. Those which have the sides of the body simple usually have a more or less prehensile tip to their tail; in the *Cuscus* this organ is elongate, scaly and rat-like; in the *Hepoona* hairy and tapering, and in the *Phalangista* it is cylindrical and hairy; there are also differences in the number and form of the teeth. The *Tarsipes* has the index finger of the hind feet short, and the lower front teeth are very slender and transparent, and the other teeth very rudimentary. The koala (*Phascolarctos*) has the habit and appearance of the preceding genera, but it is a more heavy animal, and has no tail; they live on trees, carrying their young on the back of their neck. The second group (*Macropina*, Cases 24—29) have the tarsus and the middle toes of the hind feet elongated, and the two inner ones rudimentary, equal, and united together. One of these, the tree kangaroo, (*Dendrolegus*), which chiefly lives on trees, has the three outer toes of the hind feet nearly square, and armed with curved claws; the tail elongated and hairy, like squirrels. The rest of the animals of the group which live always on the ground have the three outer toes of the hind feet of unequal length, the index toe being the longest. Their tails are conical and tapering, covered with rigid hair. Some, which have been included

under the general name of kangaroo, have very large hinder limbs, which enable them to leap, and have an elongated strong tail; some which graze have a hairy muzzle like sheep, as the kangaroo (*Macropus*), which has a very large and strong tail, and the kangaroo-hare (*Lagorchestes*), which has a slender tail covered with longish hair. The rest have a bald muffle, as the *Halmaturi*, with a conical hairy tail. The *Osphranter* differs from the latter in having a very large muzzle, swollen on the sides, and the index toes much more dilated than the rest. The rock kangaroos (*Petrogale*) have a more cylindrical tail, covered with longer hair. The bettongs (*Bettongia*) differ from the latter in being smaller and having a more slender tail, with which they carry the grass which they collect for forming their bed; and the kangaroo-rat (*Hypsiprymnus*) has a naked scaly tail like a rat. The two last genera have distinct canines. The wombat (*Phascolumys*) has many characters of the kangaroos, but it has only two cutting teeth in each jaw, no tail, and its legs are nearly equal and very short. It lives in holes in the ground.

The remaining groups of this family have equal cutting teeth and acutely tubercular grinders, like the civets, with which they were formerly confounded, but they have eight or ten cutting teeth in each jaw. They live on carrion and the animals they overpower. Those which are found in Australia (Case 30) have eight cutting teeth in the lower jaw, and eight or ten in the upper, as the bandicoots (*Perameles*), which have the feet, and much the appearance of small kangaroos, but their tail is short and slender. The *Perigaleæ* only differ from them in the tail being tufted and the ears large, and the *Chæropus* chiefly differs from the bandicoots in only having three toes on the front feet, two large and nearly equal, like the foot of a pig, and the other very small, and hidden under the fur on the outside of the wrist. The *Dasyurina* have feet like dogs, and only eight cutting teeth in the upper jaw, as the zebra-wolf (*Paracyon*), the devil (*Diabolus*), the *Dasyurus*, the *Phascogale*, and the *Myrmecobius*. The opossums, (*Didelphis*, Case 31,) which are confined to the warmer parts of America, have eight cutting teeth below and ten above, and the end of their tail is naked, scaly, and prehensile; the opossums and philanders have their toes free. The yapoc (*Chironectes*), on the contrary, has them webbed like an otter.

The family of Seals (PHOCIDÆ, Case 31) are at once known from the other rapacious beasts by their limbs being short and nearly in the form of fins; their neck is very short, so that the head appears united to the body; the nostrils are operculated; they have four or six cutting teeth above, and two or four below. One group of these animals have their grinders divided into roots at the base, like other ferocious beasts; they have the soles of their feet hairy, and simple toes armed with sharp claws. They are destitute of any ears, as the genera *Leptonyx*, *Pelagias*, and *Stenorhynchus*, which have four cutting teeth in each jaw, and the true seals (*Phoca*), which have eight cutting teeth in the upper and four in the lower jaw; the latter are the most carnivorous of the kind.

The remainder of the animals of this family have the grinders simple at the base. Some of these, like the preceding, have hairy soles to their feet, and simple clawed toes, as the *Halichærus* and the morse (*Trichecus*), which have a simple truncated muzzle, very large canine

teeth, and four cutting teeth in each jaw; the hooded seal (*Cystophora*), and elephant seal (*Morunga*), which have the end of the nose of the male sex inflatable. The last group of genera are called eared seals, because they have small cylindrical external ears; their toes end in very long membranaceous flaps, and the soles of the feet are bald and grooved; their nose is simple, as the bear seal (*Arctocephalus*), and the sea lion (*Otaria*.)

The following Table shews the position of the genera in the Cases :

Order II. FERÆ.	Lycaon, 16.	** <i>Abnormal</i> .	Macropus, 24, 25.
* <i>Normal</i> .	b. Otocyon, 16.	Fam. 3. TALPIDÆ.	Halmaturus, 26—28.
Fam. 1. FELIDÆ.	5. <i>Mustelina</i> .	* <i>Fossores</i> .	Osphranter, 26.
a. <i>Sanguinaria</i> .	a. Martes, 17.	1. <i>Talpina</i> .	Petrogale, 28.
1. <i>Felina</i> .	Mustela, 17.	Talpa, 22.	Bettongia, 29.
Leo, Cases 1, 2.	Putorius, 17.	2. <i>Chrysochlorina</i> .	Hypsiprymnus, 29.
Tigris, 3.	—Gymnopus.	Scalops, 22.	Lagorchestes, 29.
Leopardus, 1—7.	Vison, 17.	Chrysochloris, 22.	Phascalomys, 29.
Felis, 1, 2.	Zorilla, 17.	Rhinaster, 22.	3. <i>Peramelina</i> .
Chaus, 1, 4.	—b. Galera, 18.	* <i>Ambulatores</i> .	Perameles, 30.
Caracala, 4.	Ratelus, 18.	3. <i>Tupaina</i> .	Perigalea, 30.
Lynx, 4, 5.	Gulo, 18.	Tupaia, 22.	Chæropus, 30.
Gueparda, 1.	c. Helictis, 18.	4. <i>Erinaceina</i> .	4. <i>Dasyurina</i> .
2. <i>Hyænina</i> .	Mephitis, 18.	Macrosclides, 22.	Paracyon, 30.
Hyæna, 8.	—Chinchia.	Sorex, 22.	Dasyurus, 30.
Crocotta, 8.	d. Marputius, 18.	Pachyura, 22.	Diabolus, 30.
b. <i>Necrophaga</i> .	Conepatus, 18.	Corsira, 22.	Phascogale, 30.
3. <i>Viverrina</i> .	Mydaus, 18.	Blaria, 22.	Myrmecobius, 30.
a. Viverra, 9.	Arctonyx, 18.	Solenodonta.	5. <i>Didelphina</i> .
Proteles, 9.	Meles, 18.	Myogale, 22.	Didelphis, 31.
Prionodon, 9.	—Taxidea, 18.	Gymnura, 22.	Philander, 31.
b. Genetta, 9.	e. Lontra, 19.	Echinops.	Chironectes.
Galidia.	Lutra, 19.	Erinaceus, 22.	Fam. 5. PHOCIDÆ.
Galictis.	Aonyx, 19.	5. <i>Centetina</i> .	1. <i>Stenorhynchina</i> .
c. Herpestes, 10.	Pteronura.	Centetes, 22.	Pelagius.
Mungos, 10.	Enhydra, 19.	Ericulus.	Stenorhynchus.
Atilax.	Fam. 2. URSIDÆ.	? Hylomys.	2. <i>Phocina</i> .
Ichneumia, 10.	1. <i>Ursina</i> .	Fam. 4. MACRO-	Phoca, 31.
Uva.	Ursus.	PIDÆ.	Calocephalus.
Crossarchus.	Danis.	1. <i>Phalangistina</i> .	3. <i>Trichecina</i> .
Ryzæna, 10.	Helarctos, 20.	a. Acrobates, 24.	Tricheeus.
d. Hemigale, 11.	Prochilus, 20.	Petaurus, 24.	Halichærus.
Paradoxurus, 11.	Thalarctos, 20.	Petaurista, 24.	4. <i>Cystophorina</i> .
Paguma, 11.	2. <i>Procyonina</i> .	b. Cuscus, 24.	Cystophora.
Arctictis, 11.	Procyon, 21.	Hepoona, 23.	Morunga.
Cynogale, 11.	Nasua, 21.	Phalangista, 23.	5. <i>Otarianina</i> .
Cryptoprocta.	3. <i>Cercoleptina</i> .	c. Tarsipes, 23.	Otaria, 31.
e. Bassaris, 11.	Cercoleptes.	d. Phascalactos, 23.	Arctocephalus.
4. <i>Canina</i> .	4. <i>Ailurina</i> .	2. <i>Macropina</i> .	
a. Canis, 12, 13.	Ailurus, 21.	Dendrolegus, 24.	
Cyon.			
Vulpes, 14, 15.			

The third order, or Whales (CETE), are peculiar for their fish-shaped nearly bald body; their hinder limbs are united, forming an horizontal tail, and they have simply conical rootless teeth, or whalebone in the jaws. The more typical kinds have a perfectly bald skin and no whiskers, even about the mouth.

The family of Whales (BALÆNIDÆ) have a very large head, at least one third the length of the body, as the tribe of whales (*Balænina*) which have whalebones in the jaws, and the Catodons, or *Physesterina*, which have simple conical teeth, as the spermaceti whale (*Cato-*

donta), Cachalot (*Physeter*). The skulls of these animals are in the court yard.

The family of Porpoises (DELPHINIDÆ), which have a moderate or small head, and an elongated smooth body, as the dolphins (*Delphinus*), which have conical jaws and teeth, the porpoises, (*Phocæna*), which have a shorter head and compressed teeth, the *Hyperodons*, which only have a few teeth; all these have tapering front limbs, while the susuk (*Platanista*) have triangular truncated limbs, an elongated beak, with compressed teeth, and the bones of the skull bent over the forehead, so as to form an arched cavity.

In the other families the skin is more or less horny, and the lips always furnished with rigid whiskers; the teeth are flat topped. The Manatees (MANATIDÆ), which have eight grinders in each jaw, and the tail rounded at the end. The dugongs (HALICORIDÆ), which have only three or five grinders in each jaw, and the end of the tail truncated or two-lobed. The larger specimens of the seals, the whales, dolphins, &c., are for the present put over the Cases in this room. They range thus:

Order III. CETE.	Physeter.	Heterodon.	Fam. 4. HALICORIDÆ.
* <i>Cete</i> .	Catodon.	Monodon.	
Fam. 1. BALÆNIDÆ.	Fam. 2. DELPHINIDÆ.	d. Hyperodon.	Halicore.
a. Balæna.	a. Delphinus.	e. Platanista.	Fam. 5. RYTINADÆ.
Balænopora.	Delphinorhynchus.	** <i>Sirenia</i> .	Rytina.
Catodon.	b. Phocæna.	Fam. 3. MANATIDÆ.	
b. Physalus.	c. Delphinapterus.	Manatus.	

The fifth order, or hoofed beasts, (UNGULATA, Cases 32—53,) have their feet formed for walking on the earth; their toes are large and expanded at the end, protected with hoofs or large conical claws. Their teeth are irregular, the cutting and canines are often wanting in one or both jaws, and the grinders are all similar, with a flat or cross ribbed crown, and they are often destitute of roots; sometimes these teeth also are wanting.

This order is divided into two great groups, according to the form of the toes; the first having two toes larger than the rest, called cloven footed beasts, and the others having three or more toes of nearly equal size.

The cloven footed beasts (*Furcipedæ*) have the two middle toes of the feet large, equal, separate, or united together and covered by a horny case called a hoof; the two bones of the metacarpus are united together into a cannon, and the cutting teeth and grinders are separated by a vacant space; the teats are always in the groin.

The family of Oxen (BOVIDÆ, Cases 32—50) have the two large middle toes separate, each covered with a hoof; the lateral toes are rudimentary. The head is generally furnished with horns, especially in the males, which they use as their means of defence, and the gullet is furnished with two large cells, just before the two-celled stomach, in which the food is placed, that it may be masticated at leisure.

In many, the processes of the frontal bone, called horns, are covered with a permanent case. They have no cutting teeth in the upper and eight in the lower jaw; their upper lip is entire, as the oxen, antelopes, goats, and sheep.

The tribe of Oxen (*Bovina*, Cases 32—45) have the horns covered with a hard horny case, which increases in size as the bone is produced below it, by the addition of fresh layers of horny matter to the inner edge of its base. Some of these have the tail elongate and tufted at the end; the limbs stout and strong; the neck short, maned; the chest furnished with a dewlap, and the horns roundish, as the oxen (*Bos*), which have conical simple horns, which are often depressed at the base, and simple nostrils, and the ox (*Bos*) and *Anoa*, which have a bald muffle, and the musk-ox (*Ovibos*), which has a hairy muffle. The gnus (*Catoblepas*) have most of the characters of the ox, but the nostrils are operculated. The *Damalis* have elongate, erect, or recurved conical horns, which are rounded or slightly compressed, ringed, or spirally ridged at the base; their neck is maned, and their nostrils and knees are simple, as the nilghau (*Portax*), coudou (*Strepsiceros*), canna (*Boselaphus*), oryx (*Oryx*), chiru (*Kemas*), bubale (*Acronotus*), and blaubbock (*Ægocercus*), which chiefly differ from one another in the shape of their horns. The second group of bovine animals have a short flattened hairy tail, no dewlap, and simple nostrils, as the antelopes, which have erect sub-cylindrical simple horns, rounded or subcompressed, and ringed or with a spiral groove at their base; their neck is simple, and they have distinct false hoofs (Cases 34—41). They are divided into the following genera: hurm (*Cervicapra*), antelope (*Antelope*), saiga (*Saiga*), gazelle (*Gazella*), tufted antelope (*Cephalophus*), goral (*Nemorhedus*), reed buck (*Eleotragus*), wood antelope (*Tragulus*), chamois (*Rupicapra*), and antelope goat (*Aplocerus*.) The goats (*Capra*, Cases, 42 and 43) and sheep (*Ovis*, Cases 44 and 45) have triangular, compressed, erect, recurved, or twisted horns; their limbs are generally much stronger and stouter than the antelopes. The pronghorns (*Antilocapra*), have compressed horns, with a prominent process in front, giving them the appearance of being branched; they have also no false hoofs.

The tribe of Camelopards (*Giraffa*) have the horns of their frontal bones covered with a hairy skin, like the rest of their body; these horns are developed when the animal is born, and increase in size, and are permanently covered with the skin as long as the animal lives.

The animals belonging to the second section of this family either have no horns in either sex, or only have them developed at certain periods of the year, and then falling off, as the tribes of camels, musks, and deer.

The tribe of Camels (*Camelina*, Case 46) are destitute of any horns, and unlike any of the other bovine animals, they have eight cutting teeth in the upper and only six in the lower jaw. The neck and legs are long, their feet are furnished with large horny soles, and their hoofs are elongate and bent; their upper lip is two-cut, hanging down on the sides, and their muffle is hairy; as the camel of the Old World (*Camelus*), which has six grinders in the upper and five in the lower jaw; the chest, shoulder joints, knees, and the heels of the hind legs callous; and the llama (*Auchenia*) of the New World, which are smaller, have one grinder less in each jaw, the chest and knees only callous, and there is a bald callosity on each of the hind legs.

The tribe of Musks (*Moschina*, Case 51) are equally hornless; the males have long canine teeth in the upper jaw; they have the eight cutting teeth opposed to a callous band, and the hoofs of the antelopes; as the

musks (*Moschus*), which have thick tubular rigid hair, the metatarsus hairy behind, and the abdomen of the males has a gland inclosed in a pouch, which secretes the substance called musk. The *Meminna* and the pelandocs (*Tragulus*) have soft silky hair, but the metatarsus of the first is hairy behind with a round bald space on the upper part of the outer side, and of the latter is bald the whole of its length.

The tribe of Deer (*Cervina*, Cases 47—50) have the processes of the frontal bones produced at certain periods, and after a time they fall off and are again produced, increasing in size with the age of the animal; when first developed they are covered with a hairy skin, which lasts whilst they are growing, but after a time dries up and peels off. They have the same kind of teeth and hoofs as the antelopes. They are divided into various genera by the form of the horns and the disposition and development of the glands on the side of the hinder legs. Most have the muffle bald, as the muntjac (*Muntjacus*) of Asia, which has the horns placed on a long pedicel formed by a process of the frontal bone; the brocket (*Coassus*) of America, which have only simple horns; the *Mazama* of America, which has the horns bent round towards each other, with branches on the upper edge. Others have horns forked, as the roebuck (*Capreolus*), which has no basal branch; and the stag, with three frontal branches; the axis with a basal and a superior but no medial process; and the fallow-deer (*Dama*), which has the tip of the horns expanded and toothed on the edge. The reindeer (*Tarandus*) and the elk (*Alces*) have the muffle hairy; the former has an expanded basillary branch and a branched tip, the latter has a very broad expanded muffle with a bald central space, and the horns are palmated and toothed in front without any basillary branch.

There is a series of the horns of these animals, placed for the present over the Bird Cases in the Eastern Zoological Gallery.

The family of Horses (EQUIDÆ) have the two middle toes soldered together and covered with a semicircular hoof; they have six cutting teeth in each jaw; the upper lip is whole and mobile, without any distinct muffle; their stomach is simple, and they use their hind feet in defence; as the horse (*Equus*), which has its tail covered with long hair to its base, and a wart on the insides of its fore and hind legs. They are generally pale spotted. The ass (*Asinus*), which has the end of its tail alone furnished with long hair, and warts only on the inside of the fore legs; the Asiatic species have a dorsal stripe, and none or only a single cross band, while the zebras of Africa have the body more or less banded or striped. These animals are in the centre of the room.

The second division of hoofed beasts have three, four, or five nearly equal short toes, covered with long or large claws. The bones of the metacarpus and metatarsus are usually separate, and they have the cutting teeth, canines and grinders, if present, close together, as the families of elephants, armadillos, and sloths.

The family of Elephants (ELEPHANTIDÆ, Case 52) have the cutting teeth and canines generally distinct, often very large, one or the other being rarely wanting; the grinders are transversely ridged; the toes variable in number, covered with a hoof; their skin is thick, and covered with scattered rigid hairs. The nose of some is produced into a proboscis, and the nasal bones are enlarged to support the muscles of the

trunk. These animals being large, are mostly placed on the floor of the room.

In the tribe of Elephants (*Elephantina*) the proboscis is cylindrical, prehensile, very mobile, ending in a finger-like lobe; the upper canine teeth are very long, and there are no cutting teeth; as the elephant (*Elephas*) of Asia, with narrow transverse ridges on the teeth; the African elephant (*Loxodonta*) with lozenge-shaped ridges on the grinders and very large ears; and the *Mastodon* with very tubercular ridges to the grinders. There is a skeleton of the Asiatic Elephant on the floor.

The tribe of Tapirs (*Tapirina*) have a short mobile but scarcely prehensile trunk, which is simple at the end; they have six cutting teeth and small canines in each jaw, as the tapir of America and Asia. The young are spotted, the adult not so.

In the remainder of this family the nose is truncated and mobile, or blunt and not extended into a proboscis; as the tribe of pigs, (*Suina*, Case 52,) which have the nose prolonged and cartilaginous, truncate at the end, where it is strengthened by button-shaped bones, which allow these animals to use their noses to turn up the ground, and thus get at their food. They have three or four toes on each foot, the two middle ones being large and the side ones small or wanting. The grinders are tubercular, and the canines large, often exerted. The tail is distinct, and the bristles are strong. The genera from the Old World have four toes on each foot; the stomach and back are simple, as the boar (*Sus*), babirousa (*Babirousa*), warty pig (*Choireopotamus*), and the Æthiopian hog (*Phacochoerus*); the peccary (*Dicotyles*), found in America, on the contrary, has four toes on the fore and three on the hinder foot, the inner one being absent; their stomach is contracted into pouches, and they have a large odorous gland on the back.

The tribe of Rhinoceroses (*Rhinocerina*) have a very blunt rounded nose. They have seven grinders in each jaw, and large simple stomachs. The rhinoceros has three toes on each foot, a very thick skin, often forming folds, and the nose is armed with one or two solid horns, which are formed of agglutinated hairs. The hyrax, (*Hyrax*, Case 52,) which has been mistaken for a cavy, because it has a soft fur, has all the internal organization of the former, but it has four toes on its fore and three on the hind feet, and the nose is simple; it has also bristles intermixed with the fur.

The tribe of hippopotami (*Hippopotamina*) have a very broad rounded muzzle, with seven tubercular grinders in each jaw, and large exerted canines. They have four toes on each foot, inclosed in small hoofs, and the skin is nearly naked, as the hippopotamus.

The family of Armadilloes (*DASYPIDÆ*, Cases 52 and 53) have no true cutting or canine teeth, and sometimes even no grinders; the teeth when present are rootless. They have a distinct tail, their limbs are proportionate, and their toes are armed with long conical hoofs. The bodies of some are covered with hard plates, which allow the animal to roll itself up and thus protect itself from external injury, as the manis and armadillo.

The tribe of Manises (*Manina*, Case 52), which is confined to the Old World, have their bodies covered with separate imbricate scales, formed of the united hairs; they have no teeth, live on ants, and walk on

the outer sides of their feet with the claws turned in, as the scaly lizard (*Manis*).

The American tribe of Armadilloes, on the contrary, have their body protected with a shield formed of rings of square pieces, three or more of the central rings being moveable, to enable the animal to roll itself up into a ball. They have grinders, and they walk on the soles of the feet with the claws expanded. They are chiefly nocturnal, living in holes, and are very good eating, as the armadillo (*Dasypus*), tatu (*Tatusia*), and *Prionodon*, which have the shields imbedded in the skin of the body, with the central rings free and the tail exerted, and the *Chlamyphorus*, which has the shields all formed of moveable rings, only fastened to the middle of the back, which is covered on the sides with a soft fur, and the tail is inflected.

In the other genera of this family the body is covered with hair, or rarely intermixed with spines, as the tribe of Orycteropes, (*Orycteropina*, Case 52,) which have a very thick skin covered with bristles. They have cylindrical grinders, a very long emissile tongue, and depressed feet, which are expanded when they walk, with very long strong claws; their tail is elongated; they are confined to Africa, feed on ants, and sit on their haunches near ant-nests.

The tribe of Ant-eaters, (*Myrmecophagina*, Case 52,) on the contrary, are confined to tropical America, walk on the sides of the feet with the claws incurved; they have no grinders, are covered with hair, and have an elongated slender head, with a very long exertile tongue; their tail is exerted, and the males are destitute of any spurs, as the ant-eater (*Myrmecophaga*), with a brush; the *Tamandua* with a conical, and the *Cyclothurus*, which has a prehensile tail.

The tribe of Platypi (*Ornithorhynchina*, Case 53) have many of the characters of the former, but they are furnished with marsupial bones like the opossums, have a merrythought and cloaca like birds and reptiles, and the males are furnished with spurs, as the *Platypus*, which has a soft fur, webbed feet, and the bill like a duck; and the *Echidna*, which has a slender cylindrical beak, with a small mouth, and the body covered with large spines.

The family of Sloths (*BRADYPIDÆ*, Case 53) have a short rounded head, no true cutting teeth, and the canines similar to the grinders. Their limbs are very long and weak, and their toes are armed with very long compressed claws; their stomach is divided into cells; they live on trees, eating leaves, and are confined to America, as the two-toed sloth (*Chælopus*), and the three-toed sloth (*Bradypus*).

Order V. UNGU- LATA.	Oryx.	e. Capra.	5. <i>Cervina</i> , 47—51.
* <i>Furcipedæ</i> (<i>Pecora</i>).	Kemas.	Hemicapra.	~Muntjacus.
Fam. I. BOVIDÆ.	Acronotus.	f. Ovis.	Coassus.
1. <i>Bovina</i> , 32—45.	Ægocerus.	Antelocapra.	Mazama.
a. Bos, 32, 33.	d. Cervicapra.	2. <i>Camelopardina</i> .	Capreolus.
Bubalus.	Antilope.	Giraffa.	Cervus.
Anoa.	Saiga.	3. <i>Camelina</i> .	Axis.
Ovibos.	Gazella.	Camelus, 46.	Hippelaphus.
b. Catoblepas.	Cephalophus.	Auchenia, 46.	Dama.
Portax.	Madoqua.	4. <i>Moschina</i> .	Tarandus.
c. <i>Strepsiceros</i> .	Nemorhedus.	Moschus, 45.	Alces.
Boselaphus.	Electragus.	Meminna, 45.	Fam. 2. EQUIDÆ.
	Tragelaphus.	Tragulus, 45.	Equus.
	Rupicapra.		Asinus.
	Aplocerus.		

** <i>Belluæ et Bruta.</i>	3. <i>Suina.</i>	Fam. 4. <i>DASYPIDÆ.</i>	4. <i>Myrmecophagina.</i>
Fam. 3. <i>ELEPHANTIDÆ, 52, 53.</i>	Sus, 52.	1. <i>Manina.</i>	<i>Myrmecophaga, 53.</i>
1. <i>Elephantina.</i>	Choiropotamus.	Manis, 53.	Tamandua, 53.
Elephas.	Phacochoerus.	2. <i>Dasygina.</i>	<i>Cyclothurus, 53.</i>
Loxodonta.	Dicotyles, 52.	Dasypus, 53.	5. <i>Ornithorhynchina.</i>
Mastodon.	4. <i>Rhinocerina.</i>	Tatusia, 53.	Platypus, 54.
2. <i>Tapirina.</i>	Rhinoceros.	Prionodon, 53.	Echidna, 54.
Tapirus.	Hyrax, 52.	Chlamyphorus.	Fam. 5. <i>BRADYPIDÆ.</i>
	5. <i>Hippopotamina.</i>	3. <i>Orycteropina.</i>	Bradypus, 54.
	Hippopotamus.	Orycteropus, 53.	Chælopus, 54.

EASTERN ZOOLOGICAL GALLERY.

The Wall Cases contain the Collection of Birds; the smaller Table Cases in each recess contain Birds' eggs, arranged in the same series as the birds; the larger Table Cases in the centre of the room, the collection of Shells of Molluscous animals; and on the top of the Wall Cases are a series of horns of hoofed quadrupeds.

BIRDS may be characterized as warm-blooded vertebrated animals, which are covered with feathers, and are oviparous. They are divided into orders and families by the form of their limbs and beaks, as the modifications of these parts most prominently exhibit their habits.

The British specimens of birds are distinguished by a B. on the end of the perch.

1. The first section contains the Raptorial and Passerine birds, which generally build on trees or on high places, and have their young hatched blind and nearly naked, so that it is necessary they should be fed by their parents and kept for a time in the nest.

The RAPTORIAL or BIRDS OF PREY, (the ACCIPITRES of Linnæus,) which constitute the first Order, are characterized by strong feet with sharp claws, and a powerful bill, the latter covered at the base by a naked skin, or cere, in which are placed the nostrils; their stomach is almost entirely membranous, and their sternum broad, giving attachment to the muscles of their long wings. They live chiefly on animal food, especially on other birds. The females are generally one-third larger than the males; their eggs usually white and spotless.

Some of them, which feed chiefly by day, have their eyes placed on the sides of their head.

The family of Griffins (*GYPÆTIDÆ*, Case 1) have rather small heads and a long bill, surrounded at the base by tufts of bristles. The Lämmergeiers, or Bearded Vultures of the Alps and Himalaya Mountains, are among the largest of the Raptorial Birds, and their quill feathers are often more than two feet and a half long. These are probably the Rock or Condor of the Orientals, the true Condor being only found in America.

The family of Condors, (*CATHARTIDÆ*, Cases 2—4,) found principally in America, have naked heads, slender lengthened bills, and longitudinal exposed nostrils: as the Condor, or Great Vulture of the Andes (*Sarcoramphus*), and the Californian Vulture (*Cathartes*).

The family of Vultures (*VULTURIDÆ*, Cases 5—7) have naked heads like the former, but their bills are strong and their nostrils are perpen-

dicular; they are all from the warm parts of the Old World. These birds live chiefly on carrion.

The family of Falcons, (FALCONIDÆ, Cases 8—30) have the head covered with feathers and the eyebrows prominent, giving them the appearance of being deep in the head. The Eagles (*Aquilinæ*, Cases 8—17) have a very strong compressed bill, suddenly curved to the tip, and the margins are festooned; they prey on living quadrupeds, birds, and fish. The Caracaras (*Polyborinæ*, Case 18) have the bill slightly hooked; the wings with the third to the sixth quill long; the orbits, sides of the head, and part of the throat more or less denuded of feathers. They are peculiar to South America, and like the Vultures, they congregate generally in flocks to feed on dead animal substances, and after they have taken their food the craw always becomes very prominent and naked. The Buzzards (*Buteoninæ*, Cases 19—22) have the bill moderate, much curved from the base; their wings lengthened, and the tarsi moderate and strong. They are sluggish and pounce on their prey upon the ground. The Kites (*Milvinæ*, Cases 22, 23) are known by their excessive long wings and forked tail; their tarsi are short and feathered below the knee. The weakness of their bill occasions some of them to feed principally on insects. The Falcons (*Falconinæ*, Cases 24—26) are the most courageous birds in proportion to their size of all the birds of prey. Their bill is curved from the base, and has on the margin one or two strong teeth on each side; their wings long at the tail, with the second quill the longest. The Sparrow-hawks (*Accipitrinæ*, Case 27) are distinguished by their wings being shorter than their tail; their tarsi are moderate and shielded. The margin of the upper mandible is greatly festooned. They skim the earth with a rapid flight, seizing their prey upon the wing, and sometimes pouncing upon it from above. The Harriers (*Circinæ*, Cases 29, 30) have very long and slender tarsi, long rounded or even tails and lengthened wings, with the third quill the longest; the cheeks of some species are naked. *Melierax* is remarkable for singing while the female is sitting on the nest, which it does for hours together. The Secretary, (*Serpentarius*,) found in the arid plains of Africa, called also the Serpent-eater, from its preying on those reptiles, in taking of which they find their spurred wings and lengthened legs highly serviceable. The true Harriers (*Circus*, *Strigiceps*.) This latter has a kind of collar on each side of the neck, formed by the tips of the feathers which cover their ears, which gives them a resemblance to the owls. These birds generally fly very low over the marshes, and strike their prey upon the ground.

The Nocturnal Birds of Prey, or Owls, (STRIGIDÆ, Cases 33—35,) have a large head, and their eyes placed in front, and more or less surrounded with a circle of radiating feathers. Their plumage is very soft, their ears large, and placed just at the back of the disk of feathers which surrounds their eyes, and this development of the organs of hearing probably compensates for the imperfection of their sight, at least in full daylight. The Hawk-Owls (*Surninæ*, Case 31) have the facial disc scarcely apparent, the tail lengthened, and the head without egrets. They hunt their prey more by day than the rest of the owls. The Eagle-Owls (*Buboninæ*, Cases 32, 33) have the facial disc and ear-conch moderate, the tail short, and the head generally with egrets. The Howlets (*Otinæ*, Case 34) have the facial disc more prominent

and the ear-conch large, furnished with an operculum. Some species have egrets. The true Owls (*Striginae*, Case 35) have the facial disc very large, occupying each side of the head; the wings long and tail short.

The PERCHING BIRDS (PASSERES, Case 36—83) are generally smaller than the Raptores, their bills are weaker, and their claws slender and acute; like them, they have the hind toes articulated on the same plane with the front ones, which enables them to grasp their perch with ease and security. They are separated into five divisions, according to the form of the feet and bill, each division containing several families and genera.

The *Passeres* of Linnæus, which contain the greater part of these birds, have three toes in front and one behind. The two front outer toes are generally united together at their base.

The wide-gaped PASSERINE BIRDS, or FISSIROSTRES, which feed chiefly on the wing, have generally very short weak feet, and large gaping mouths; they live principally on insects, though a few of the larger kinds catch fish.

The family of Goat-suckers (CAPRIMULGIDÆ, Cases 36 and 37) are nocturnal birds, and have the soft downy plumage and dingy colours of that tribe. They are generally solitary, living on moths, and laying their eggs on the ground without any nest. The enormous width of their mouth, which is furnished with stiff lengthened bristles, is capable of engulfing large lepidopterous insects, which are retained there by a glutinous saliva. The rushing of the air into their immense mouth while on the wing, produces a very peculiar humming sound. The Podarges (*Podarginae*, Case 36) are of a large size with a strong curved bill festooned on the margin, which in some is also dilated; their hind toe is not directed forwards. The fat of *Steatornis* is employed in cookery, and it furnishes a large quantity of manure. The Goat-suckers (*Caprimulginae*, Cases 36 and 37) have a very short weak bill, with the gape extending far beneath the eyes, furnished more or less with bristles. All the toes are directed forwards, and the lateral toes are of equal length. The *Scortorninae* (Case 37) differ from the preceding by their lateral toes being unequal in length. The *Macrodipteryx* is peculiar for having a long-stemmed feather arising from the middle of its wings. The *Podager* chases insects in full daylight.

The family of Swallows (HIRUNDINIDÆ, Case 38) have a close plumage, short bill, extremely long wings, and fly with great rapidity; they are generally birds of passage, and often live in flocks. The Swifts (*Cypselinae*, Case 38) have a very weak triangular depressed bill; their wings excessively long and curved; their tarsi very short, and they walk with their toes all directed forwards. The Esculent Swallows are famed for their nest, which is composed of a gelatinous substance that is found on the rocks of Java, &c. The Chinese highly esteem them as food, and they form no unimportant article in the commerce of that country. The Swallows (*Hirundininae*, Case 38) have a stronger bill, and the hind toe is inserted on the back part of the tarsus.

The family of Todies (TODIDÆ, Case 39) have a depressed flattened beak, blunt at the end, with the gape very wide, and extending under the eyes; legs generally short, and a short tail. They live on flies, berries, &c. The Rollers (*Coracianae*, Case 39) have a strong broad

bill, compressed at the tip, which is slightly hooked; their wings long and pointed; their tarsi generally shorter than the middle toe. They feed upon worms, insects, and small frogs, and are peculiar to the Old World. The Todies (*Todinae*, Case 39) are birds of small size, with lengthened bill, which is horizontally flattened and obtuse at the tip; their tarsi are also lengthened. They live on flies, &c., and inhabit South America and the West Indies. The Broad-bills (*Eurylaiminae*, Case 39) have the bill short, excessively broad at the gape, with the margins folding over those of the under mandible, and the tip suddenly hooked. They inhabit the thickest jungles of India, and their food consists of berries, fruits, and insects. The Momots (*Momotinae*, Case 39) have a strong lengthened bill, with the edge of both mandibles serrated, and the tongue feathered as in the Toucans. They are solitary in their habits, build in holes, feed on insects, even on small birds, and are peculiar to South America.

The family of Curucuis (TROGONIDÆ, Case 40) have a short conical beak, with the tip and generally the margins dentated. They are covered with very fine soft feathers; many of them are beautifully coloured; they live chiefly in low damp woods, in tropical parts of America and Asia, flying early in the morning and in the evening; they build in holes in trees, living on insects, some on berries, and often sit for hours at a time alone on the low branches of trees. Some have the upper tail and wing-coverts much elongated, and drooping over the wings and tail.

The family of King-fishers (ALCEDINIDÆ, Cases 41 and 42) have a long quadrangular bill; long wings, and very small feet, with the toes united to the base; they are generally of a brilliant blue or green colour, and live on fish, which they catch by diving. They build in holes on the banks of rivers, and are found in both hemispheres. The Puff birds (*Capitoninae*, Case 41) have the bill moderate and straight, curved downwards, and compressed towards the tip. The base is furnished with numerous bristles; they are peculiar to South America, and feed on insects, which they take in the manner of fly-catchers. Their plumage is smooth and dense, and is commonly puffed out into a round ball. The Halcyons (*Halcyoninae*, Case 41). Their bills are lengthened, the sides inflated, and the base more or less depressed, with the gonyes of the under mandible ascending. They feed on insects and some of the large species of crustacea and reptiles. Found only in the Old World. The King-fishers (*Alcedininae*, Case 42,) have a very straight, compressed and angular bill; they live on small fish, which they take by precipitating themselves into the water from some branch, and return to their perch to gulp their prey. One species is found in England, and others inhabit both the Old and New World. The Jacamars (*Galbulinae*, Case 42) have very long, three-sided, pointed bills; their tarsi are very short with four or three toes, the two anterior ones united to the middle joint. They always have a brilliant metallic plumage, and inhabit the warmer parts of South America, where they feed on insects.

The family of Bee Eaters, (MEROPIDÆ, Case 42,) which are generally of a green colour, have long, slightly arched beaks, and long pointed wings; they associate in flocks, and fly like swallows, pursuing bees and

wasps, which they prey upon with impunity. They are only found in the Old World and Australia.

In the other groups of this division the outer toes are generally shorter than the middle one, and they are only connected together to the base of the first joint.

The TENUIROSTRAL BIRDS have slender, compressed, and frequently arched bills, and their tongue is often divided at the tip into numerous filaments, and is used for sucking up the honey from the nectaries of flowers. The hind toes and claws are generally much larger than the rest. They are chiefly confined to warm climates.

The family of Hoopoes (UPUPIDÆ, Case 43) have an elongated curved beak, with the nostrils covered with feathers, directed forwards. They have much the habit and appearance of the Crows. The Hoopoes live on insects which they seek for on the ground, also on fruits, and the Promerops upon the honey of flowers. They are inhabitants of the warmer parts of the world, and some are singular for the form and beauty of their plumage.

The family of Sun Birds (NECTARINIDÆ, Case 43) are small birds with arched bills, the males of which have most brilliant metallic coloured plumage, their food consists of the nectar of flowers, which they obtain by means of their filamentous or forked tongue. Others feed on spiders. The Sun Birds (*Nectarininae*) are from Africa, Asia, and the Pacific ocean; they have the bill lengthened, arched, and finely toothed on the edge, with the tip entire. The *Carebidæ* inhabits South America, the bill in general shorter than the head, with the tip distinctly notched.

The family of Humming Birds (TROCHILIDÆ, Case 44) have long, very slender bills, and long tongues, which they have the power of darting forward with great force, like the Woodpeckers. They prey chiefly on insects, and one genus (the Spider-Eaters) almost exclusively on spiders. Their small size and brilliant plumage have long rendered them celebrated. Found only in the New World. The *Lamporinæ* have the bill lengthened, straight, or slightly bent. The *Phætorninæ* have the bill nearly straight, and the tail wedge-shaped. They are less brilliant than the other species. The *Trochilidæ* have the bill more or less lengthened, very straight.

The family of Honeysuckers, (MELPHAGIDÆ, Case 45,) which are peculiar to New Holland and the neighbouring islands, are generally of a dull black or olive colour, with compressed subulate beaks, with the tongue terminated with a pencil of hairs. Their food consists of the pollens of the Eucalypti, insects, and fruits. They deposit their eggs in cup-shaped nests, placed in the fork of a small branch near the ground. The Honey-creepers (*Myzomelinæ*, Case 45) have very slender arched bills. The Honey-eaters (*Meliphaginæ*, Case 45) have the bill compressed, arcuated throughout its length, and dentated towards the tip. The *Melithreptinæ* (Case 45) have a short subconic bill, which is considerably compressed on the sides, and slightly arched from the base to the tip, which is dentated.

The family of Creepers (CERTHIADÆ, Cases 46 and 47) are generally of a dull brown colour, and agree in many characters with the Insectivorous Birds, especially the Warblers. They mostly peck at the

insects on the bark of trees. The *Furnarinæ* (Case 46) have slender bills that are more or less curved and compressed, and the tip is sometimes entire or slightly dentated. Wings short and rounded; tail lengthened, and in some pointed. They are mostly found in South America. Insects and larvæ form their principal food. The *Anabatinaæ* (Case 46) are short straight billed; with the tail rounded, but the tips of the feathers in some species are pointed. These birds are peculiar to South America, and feed on insects, &c. The Tree Creepers (*Dendrocolaptinæ*, Case 47) vary much in the form of their bill; the outer and middle toes long and of equal length, united to the first joint; the tail connected, very stiff, with the tips of the shafts strong and pointed. They are found only in South America, and seek for insects beneath the bark of trees. The Creepers, (*Certhinæ*, Case 46) have rather lengthened, more or less straight bills; the tarsi short and slender, with the inner toe shorter than the outer, and the hind toe longer than the tarsi. The tips of the tail feathers of some are pointed and acute beyond the webs. These birds feed on the insects and larvæ which are found in the seams and crevices of the bark of trees. The Nuthatches (*Sittinæ*, Case 47). Their bills are straight, cylindrical, with the upper mandible longer than the lower. Their tarsi short and strong, with the inner toe nearly equal in length with the middle one. They perforate the bark of trees for the larvæ and insects that frequent such places. The *Orthoninæ* (Case 47) have a subulate bill, but short and compressed; their tarsi are strong, with the outer toe longer than the middle one, and the claws very strong and grooved beneath. They inhabit the islands of the Pacific Ocean. The Wrens (*Troglodytinæ*, Case 47) have the bill more or less lengthened, slender and entire, with both mandibles of equal length. Tarsi moderate, with the lateral toes equal and slightly united at the base. They are found in various portions of the world, inhabiting the low bushes, where they seek for insects and worms, &c. The Menura, or lyre-tailed, is peculiar among the Passerine birds for its large size, which has caused them to be placed with the Gallinaceous birds.

The Toothed-billed Passerine Birds, (DENTIROSTRES, Cases 48—61,) like the Noble Birds of Prey, have a notch on each side of the tip of the upper mandible, and their gape is often armed with bristles. They live generally on insects, worms, &c.

The family of Warblers (MOTACILLIDÆ, Cases 48—52) consists generally of small birds which have rather long and slender bills, with the tip slightly curved and dentated. They are solitary in their habits; feeding on insects, worms, and berries. The Tailor birds (*Malurinæ*, Case 48) have the bill moderate, slender, compressed to the tip, which is slightly notched; their wings short and rounded; their tail lengthened, graduated, and generally carried over their back. They inhabit the Old World, and mostly form very beautiful and artfully dome-shaped nests. Others place their nest in a withered leaf, connecting the sides together with fibres. The Warblers (*Motacillinæ*, Case 49) have slender straight bills, with the tip slightly notched; their wings rather lengthened; their tail moderate, square, or slightly emarginate. They are small birds which have an agreeable song, and are continually flitting about in search of insects and their caterpillars, &c. The Wheatears (*Saxicolinæ*, Case 50) have a straight bill rather depressed at the base,

with a few bristles; their wings lengthened and pointed; their tarsi elevated and slender. They inhabit barren places in various parts of the Old World, and are lively birds, which subsist on insects. The *Accentorinæ* (Case 51) have their bills straight, rather short, and the tip compressed, with the margins bending inwards; their wings are lengthened and pointed; their tarsi strong and of a moderate length. They are found in both hemispheres, and feed on insects and small seeds, which they seek for on the ground and in the small bushes. The Titmice, (*Parinæ*, Case 51,) the bills of which are short, conical, with the tips entire, and the base covered with a few bristles; their nostrils are concealed by the frontal plumes. They are found in both hemispheres, and are very active little birds, continually flitting from branch to branch, and suspending themselves in all kinds of attitudes while seeking for insects on the trees. The Wood Warblers (*Sylvicolinæ*, Case 52) are allied to the last series of birds, and like them have the bills conical, and generally with a dentation at the tip of the upper mandible. The majority of the species inhabit North America, and are commonly seen in low bushes near the margins of rivers and lakes, actively engaged in flying from tree to tree in search of caterpillars, &c. Others feed on fruits. The Wagtails (*Motacillinæ*, Case 52) have the bill lengthened and slender; their wings long and pointed; their tail generally very long and narrow, which they are continually shaking up and down; their tarsi elevated, and the hind toe long and armed with a long claw. They frequent the margins of rivers, inundated fields, &c., feeding on insects and small seeds.

The family of Thrushes (*Turdidæ*, Case 53—55) have arcuated and compressed bills with the tip more or less dentated; their wings generally lengthened and pointed; their legs more or less lengthened, and the toes long and slender. They inhabit the world generally. The Ant-thrushes (*Formicarinæ*, Case 53) have the bill lengthened, straight, with the tip suddenly bent downwards; their wings are short; their tail generally short and even; and their tarsi lengthened and slender. These birds inhabit the tropical parts of the world, where some seek the humid forests, and others the margins of streams, but they all feed principally on ants and other insects. The Thrushes (*Turdinæ*, Case 54) have the bill lengthened, compressed, with the culmen gradually curved to the tip, which is dentate; their wings with the third and fourth quills longest. Found in most parts of the world, and are generally solitary in their habits, feeding principally on fruits, worms, and snails, &c. Some species are remarkable for their song, and others for their power of imitating almost any sound. The Babbling Thrushes (*Timalinæ*, Case 55) have the bill straight and compressed, with the tip slightly emarginated; their wings are short and rounded; their tail broad and graduated; their legs elevated, and their toes strong, armed with slightly curved claws. They inhabit the warmer parts of the world, and are found on the mountains in the neighbourhood of rivulets. Most species congregate and make a chattering noise. They feed on insects and grains. The Orioles (*Oriolinæ*, Case 56) have the bill lengthened, with the base broad and gradually compressed towards the tip; their nostrils naked and the aperture large; their wings lengthened and pointed, and their tarsi rather short. They are found in the warmer parts of the world, and are generally seen in small flocks near forests,

where they feed on caterpillars, insects, and also frequent orchards during fruit season. One species (*Oriolus Galbula*) is occasionally found in England. The short-legged Thrushes (*Pycnonotinæ*, Case 55) are remarkable for the shortness of their tarsi, which is the same length as the hind toe; their bills are distinctly emarginated; their wings are generally short. They are peculiar to Asia and Africa, where they are found generally in the woods, feeding on caterpillars, insects, and fruits.

The family of Fly-catchers (*MUSCICAPIDÆ*, Cases 56 and 57) have the beak more or less depressed, broad at the base, with bristles, and the tip suddenly bent and emarginated; their tarsi generally short and slender. Inhabit various warmer parts of the world, and feed solely on insects captured during flight. The *Querulinæ* (Case 56) have a strong, broad, and much depressed bill, with the gape very wide, and armed with strong bristles; their tarsi short, and the lateral scales very minute. Are peculiar to South America, where they pursue insects in flocks, in the forests. The *Tæniopterinæ* (Case 56) vary in the length of bill, but it is always somewhat depressed, and culmen rounded; their wings moderate and pointed; their tarsi lengthened and strong. Found only in South America, generally in the vicinity of water, where they pursue insects on the ground. The Tyrants (*Tyrannæ*, Case 56) have a long, straight and strong bill, somewhat depressed throughout, gradually compressed towards the tip, which is suddenly hooked, and their base is furnished with bristles; their tarsi short and slender. They are found in the warmer parts of South America, and are very bold and spirited birds. Insects and even small birds sometimes form their food. One species has been observed to plunge into the water after fish. The *Tityrinæ* (Case 57) have a short, very broad bill, compressed towards the tip, with the culmen convex and smooth; their wings long; their tarsi short and weak. They are generally seen perched on the high branches of trees in South America, ready to plunge at the passing insects. The Fly-catchers (*Muscicapinæ*, Case 57). Their beaks are weak, much depressed, with the tip slightly hooked and emarginated; their gape is always bristled; their tarsi short and slender. They are mostly found in the Old World; their food consists principally of insects. The Fly-catching Warblers (*Vireoninæ*, Case 57) have short very compressed beaks, with the tip hooked, the gonys ascending, and the gape with bristles. They are peculiar to the New World, where they feed on insects and fruits.

The family of Chatterers (*AMPELIDÆ*, Cases 58 and 59) have the same depressed beak as the Fly-catchers, but it is somewhat shorter in proportion, tolerably broad, and slightly arcuated; their outer toes are united together to the second joint. The Thick-heads (*Pachycephalinæ*, Case 58) have short, somewhat conic beaks, with the gape bristled. They are found in the forests of Asia, Australia, and South America, generally in pairs, seeking for insects and fruits, &c.; their song is loud and rather pleasant. The Manakins (*Piprinæ*, Case 58) are generally birds of very small size; their beak is very short, with the tip much curved and emarginated, and the gape without bristles. The Chatterers (*Ampelinæ*, Case 58) have short, strong and broad bills, without any bristles; their wings much lengthened and pointed; their tarsi short and robust. They are found in all parts of the world except

Africa. They inhabit the low grounds or forests, generally in flocks, feeding on the berries of various plants, and sometimes upon insects. Most of them are remarkable for the beauty of their plumage during the breeding season. The Caterpillar-eaters (*Campephaginae*, Case 59) have strong short arched bills, with the base broad and a few bristles; their wings long and pointed; their tail moderate, emarginated in the middle, and rounded on the sides. They are found in India, Africa, and South America, where they feed upon caterpillars, which they collect upon the highest trees. The Drongos (*Dicrurinae*, Case 59) have the bill broad at the base and compressed towards the tip; the culmen is gradually arched and bent over the lower mandible; their wings long and more or less pointed; their tail lengthened and generally forked. They inhabit Africa, Asia, and Australia, and live on insects. Some species are remarkable for their power of song, which is as sweet as the Nightingale's.

The family of Butcher-birds (*Laniadae*, Cases 60 and 61) have strong compressed bills with a deep notch at the tip of the upper mandible; they inhabit both the Old and New World, feeding on insects and young birds. The Butcher-birds (*Laniinae*, Case 60). Their bills are generally short, with the tooth of the upper mandible very prominent; their lateral toes equal and free. They are found in most parts of the world, generally in small flocks, pursuing grasshoppers, insects, young frogs and small birds, which they impale on thorns, pull to pieces, and devour at their leisure. The Bush Shrikes (*Thamnophilinae*, Case 61) have the bill generally lengthened, and emarginated and hooked like those of the last division. They are inhabitants of Australia, Africa, and South America.

The Conirostral birds (*Conirostres*) have a strong conical bill with the tip slightly emarginated or entire, and live chiefly on grain and fruit.

The family of Crows (*Corvidae*, Cases 62—64) have a strong bill, compressed on the sides, and the nostrils covered with stiff feathers, which incline forwards. The *Phonygaminae* (Case 62) have lengthened bills, with the culmen smooth and rounded, which scallop out a circular notch in the feathers of the forehead; their nostrils linear and exposed. They inhabit Australia, New Guinea, &c. They pursue small birds, and are very noisy and clamorous. The Jays (*Garrulinae*, Case 62) have the bill rather short, terminating suddenly, and nearly equally curved; their wings are short and rounded; their lateral toes unequal in length. These birds generally live in the forests of various parts of the world. They feed on fruits, worms, &c. The Crows (*Corvinae*, Case 62) have strong bills more or less arched; their wings are lengthened and pointed; their feet are strong and formed for walking. They inhabit various parts of the world, are generally seen on the ground, searching for carrion, worms, &c. They are very cunning, and their sense of smell is very powerful. The *Callaeatinae* (Case 63) have a short elevated bill, whose upper mandible is arched, and the base furnished with velvet feathers. They are inhabitants of Africa, Asia, and Australia. Generally seen on the ground, feeding on insects and berries. The *Gymnoderinae* (Case 64). Their bills are straight and depressed, wide at the base, and narrowed towards the tip. These singular birds are peculiar to South America, and are principally frugivorous. The

Choughs (*Frigelinæ*, Case 64) have the bill lengthened and slender, compressed on the sides, with the tip scarcely emarginated; their wings are lengthened, and their tarsi strong and rather short. They are found in the elevated mountains of the Old World, and prey on insects and berries.

The family of Birds of Paradise (*PARADISEIDÆ*, Case 64) have the bills lengthened, slightly bent at the tip and emarginated; their wings are lengthened and pointed; their side feathers are much lengthened and of different forms, which gives them the appearance of having four wings. It was formerly erroneously supposed that these birds had no feet, though in fact their feet are rather strong and large; their habits are perfectly those of the Crows, and though omnivorous, their favourite food is cockroaches and crickets. They are natives of New Guinea and the neighbouring islands, where the natives collect them to make plumes, and generally cut off their wings and feet to prevent those rigid parts from injuring the feathers, which gave rise to the errors alluded to above.

The family of Starlings (*STURNIDÆ*, Cases 65—67) have the bill generally lengthened, conical, slender, with the tip nearly entire, and the commissure at the base angulated; their wings moderate; their tarsi strong and scutellated, with the lateral toes equal. The Bower Birds (*Ptilonorhynchinæ*, Case 65) have strong bills with the culmen elevated, the base wide, and the sides somewhat compressed towards the tip; their wings are moderate, and their feet strong. They inhabit Africa, Asia, and Australia. Their plumage is generally very shining and metallic. They feed principally on fruits, and occasionally on insects. The Australian Bower Bird (*Ptilonorhynchus*) forms artificial arbours of twigs, which they decorate with shells, bones, stones, and other articles, and through which they run in playful chase after each other. The Grakles (*Graculinæ*, Case 65) have the bill short, compressed on the sides, with the base of the lower mandible swollen; their nostrils are naked. Found only in the Indian Archipelago; live in troops, and search for insects and fruits among the banana. Of all birds, the Grakle is said to imitate most completely the language of man. The Beef-eaters (*Buphaginæ*, Case 65) have a large, strong bill, with the lower mandible more inflated than the upper; their wings moderate, with the third quill longest; their tail wedge-shaped; their feet armed with strong curved claws. They inhabit Africa, and live on the larvæ of a parasitical insect, which they compress out of the skin of Rhinoceros by means of their bill. The Starlings (*Sturninæ*, Case 66). The bills of these birds are lengthened, conical, with the commissure angulated at the base; their wings moderate, with second and third quills longest; their tarsi rather long and scutellated. They are found in both hemispheres, but especially throughout the whole of the eastern continent, feed on insects, and are of use to cattle by relieving them from their attacks. They fly in large and crowded flocks. The English species of Starling is easily tamed, and taught to sing and even to speak. The *Quiscalinæ* (Case 66). Their bills are of a lengthened conic shape, entire and compressed, with the culmen slightly curved; their tail graduated, with the sides bent upwards or boat-shaped; their feet strong. Inhabit New Guinea, but especially North and South America. The *Icterinæ* (Case 67) have lengthened conical bills, with the cul-

men rounded, straight, or slightly bent, and advancing in a semi-circle on the forehead; their wings lengthened and pointed; their feet are strong. They are peculiar to America, and live in flocks in the manner of the preceding sub-family, feeding on grain and insects, &c. The *Agelaiæ* (Case 67) have the bill rather short, thick at base, and completely conic, with the culmen rather broad and flattened at the base. They are found in North and South America, generally in flocks among the cattle; these birds feed on small grain, &c. Some of the species have a peculiar trait of habits in laying its eggs in other birds' nests.

The family of Finches (FRINGILLIDÆ, Cases 68—71) are furnished with a short conical bill, and broad at the base, with the commissure not angulated. Their food consists principally of small grains. The Weavers (*Ploceina*, Case 68) have large conical bills, with the culmen slightly bent and the commissure straight; their wings are pointed, with the first quill remarkably short and spurious. They are found in Africa and India, and feed on grains, &c.; some seek for parasitical insects off the hides of the wild buffalo of South Africa. They form their nest of intertwined blades of grass; others form a single mass of a number of individual nests, which contain several distinct apartments. The Hawfinches (*Coccothraustina*, Case 68); the bill short, very thick at its base, suddenly ending in a point at the tip, which is entire; their wings without a spurious quill. Their powerful bill allows them to feed on hard fruits and grains, &c. The Tanagers (*Tanagrina*, Cases 68 and 69) have conical bills that are triangular at the base, and with the culmen more or less arched, with the tip more or less emarginated; their wings are short. They are peculiar to the New World; some are remarkable for their beauty of plumage; they resemble the Finches in habits and feed on grain, berries, and insects. The Finches (*Fringillina*, Cases 69 and 70) have the bills short, conical, and pointed, with the culmen straight and the tip generally entire. They feed generally in small flocks on grain, and occasionally on insects. Some species possess a pleasing song. The Buntings (*Emberizina*, Case 70) have the bill short, conic, with a straight culmen, and the sides compressed; the palate armed with a hard tubercle. Their food consists of seeds and sometimes insects, which they seek for in woods and gardens. The Larks (*Alaudina*, Case 71) have straight, short, conic bills, and both mandibles of equal length; their hind claw is lengthened and nearly straight. They are granivorous and pulverators, and have the power of singing while rising from the ground perpendicularly in the air. The Bullfinches (*Pyrrhulina*, Case 71). Their bills are very thick, with the culmen arched and convex; their wings are somewhat rounded, with the first four quills nearly equal and longest. They are found in both hemispheres; they feed on hard seeds and grains. The Crossbeaks (*Loxina*, Case 71) have the mandibles much compressed, strongly curved, and their points cross each other. Those of Europe feed on the seeds extracted from the pine-cones. The Plant-cutters (*Phytotomina*, Case 71) have the margins of their short bills serrated. They inhabit South America, and are said to feed on vegetables.

The family of Colies (COLIDÆ, Case 71) have short, swollen and compressed bills; their wings short, their tail very long and pointed, their tarsi scutellated, with all their toes sometimes placed forwards. They are

inhabitants of Africa, where they live in flocks, feeding generally on fruits; when they take their rest they sleep in companies, suspended to the branches by one foot, the head lowermost.

The family of Plantain-eaters (*MUSOPHAGIDÆ*, Case 71) have large elevated and gibbose bills, with the margin generally serrated; their wings more or less lengthened and rounded; their tarsi short, and the outer toe sometimes versatile. The Plantain-eaters (*Musophaginæ*) have the outer toe versatile. They inhabit Africa, where they live in pairs or families, feeding generally on fruits. In the *Opisthocominæ*, the outer toe is not versatile. They are found in Guiana, perched on some branch, in small flocks, along the margin of inundated places, where they subsist on leaves and seeds of Arum.

The family of Hornbills (*BUCERIDÆ*, Cases 72 and 73) have a very large beak, like the Toucans, but heavier, and varying greatly in shape, according to the age of the bird; they feed on fruits, mice, small birds and reptiles. Like the Toucans, they swallow their food whole, throwing it in the air and catching it, to facilitate their swallowing it. They are peculiar to the warm parts of Asia and Africa.

Lastly, the Scansorial Birds (*SCANSORES*) have short feet, fitted for climbing; most of them have the power of turning one of the front toes behind, so as to have two toes before and two behind, thus enabling them to hold more firmly to their perch.

The family of Parrots (*PSITTACIDÆ*, Cases 74—76) are known to every one by their domestic habits; they are characterised by their short, hard beak, which is surrounded at the base by a naked skin, like the falcon's, in which is placed the nostrils; and they have a short tongue, which is usually fleshy, but in a few, as the Black Cockatoo, it is hard and tubular. They are a very numerous group, and have been divided into many genera; they live chiefly on fruit; they build in the hollow trees. The Ground-Parrakeets (*Pezoporinæ*, Case 74) have the tail lengthened, very broad, and sometimes cuneated; their tarsi somewhat elevated; their upper mandible is convex, and the lower deep with the gonyes curved. They are principally inhabitants of Australia; they seek their food chiefly on the ground, consisting of fruits, and some seeds of grasses, and others on the flowers of the Eucalypti. The Maccaws (*Arinæ*, Case 74) have the tail lengthened, graduated and with the ends pointed; their upper mandible is smaller than the lower, which is deeper than long. They live in flocks, in the forests of the Western World; their food consists of fruits, maize, &c. The Lories (*Lorinæ*, Case 75) mostly have their tail short and square; their bills are rather weak, curved, with margin of the upper serrated, and the lower mandible longer than deep. They inhabit principally the Indian Islands, where they feed on honey and fruits. The Parrots (*Psittacinæ*, Cases 75 and 76) have their tail short, even or rounded at the end; the upper mandible dentated and longer than high. They are found both in the Old and New Worlds. The Cockatoos (*Cacatuinæ*, Case 76) have the culmen of the bill much elevated and curved from the base; their tail lengthened, broad and rounded, their head large and generally crested. Some feed on fruits, seeds of the Eucalypti, and others on roots of bulbs.

The family of Toucans (*RAMPHASTIDÆ*, Case 77) are distinguished by their very large, light, cellular beaks, which are irregularly notched on

the edge, and by their peculiar long, feather-like tongues; they live on fruit and small birds, and are only found in tropical America, building in the trunks of trees.

The family of Woodpeckers (*PICIDÆ*, Cases 78—80) have a wedge-shaped bill, with the hard points and the sides compressed near the tip; their tail lengthened and rigid; in others they are short and rounded. The Barbets (*Bucconinæ*, Case 78) have thick conical bills, with the base swollen, and the tip compressed, and furnished with stiff bristles at the base; their wings short and rounded, and the tail short and mostly even at the end. They inhabit India and its isles, South America, and Africa; their food consists of insects, fruits, and small birds. The *Picumina* (Case 78) have the tail short with the end rounded, soft, and held elevated like the wren. They are found in South America and India. The Woodpeckers (*Picina*, Case 78) have the posterior outer toe always longer than the anterior one; their bill with the lateral ridge always visible. They inhabit North America, India, and Europe. They traverse the bark of trees in every direction, and insinuate their long tongue into chinks and crevices to draw out the larvæ of insects, on which they feed; they also subsist on soft fruits. The *Dryscopina* (Case 79) have the posterior outer toe of nearly equal length with the anterior one, their bill with the lateral ridge prominent. They are principally found in South America; and feed principally on fruits and the eggs of small birds. The *Celeina* (Case 80) have the anterior outer toe longer than the posterior one; their bill with the lateral ridge entirely wanting or but slightly apparent. They are found in Europe, India, South and North America, and feed principally on insects, as ants, &c. The Ground Woodpeckers (*Colaptina*, Case 80) have the bill broader at the base than high, with the culmen considerably curved from its base; their tarsi lengthened and equal to the outer posterior toe. These are found in South and North America and Africa; live principally on the ground, and feed on ants, &c. The Wrynecks (*Yurcina*, Case 80) have a rounded and less angular bill than the last; their tail moderate, broad, and soft. This species inhabit Europe, Africa, and India; and feed principally on ants, which they secure by means of their long tongue.

The family of Cuckoos (*CUCULIDÆ*, Cases 81—83) have a slightly arched, compressed beak, and long rounded tail; they live chiefly on insects, and many of the species are birds of passage. The Indicators (*Indicatorinæ*, Case 81) have short, strong, and rather conic bills; their tarsi and toes very short. They inhabit Africa, where they are celebrated for guiding the natives to the nests of wild bees, enticing them to the spot by flitting before them and reiterating a peculiar cry; they are furnished with a very hard skin, but the bees attack their eyes. The Rain-birds (*Saurotherinæ*, Case 81) have the bill lengthened, curved at the tip, and the margin serrated; their wings very short and rounded; their tarsi very long and robust. They inhabit South America, where they live on snakes, fruits and insects, and are generally seen on the ground. The Coucals (*Coccyzinæ*, Cases 81 and 82) have short elevated bills, compressed towards the tip; their wings short and rounded, and their tarsi lengthened. They are seen generally on the ground, running about with quickness among reeds and grass, seeking their food, which consists of grasshoppers, lizards, and fruits. The Ani (*Cro-*

tophaginæ, Case 82) have a short more or less compressed bill, with a naked space round the eyes. Some species are found on the ground seeking for insects, &c., and others on the loftiest trees, where they search for the same kind of food. The Cuckoos (*Cuculinæ*, Case 83) have the bill slender, culmen arched, and the sides compressed; their wings lengthened and pointed; their tarsi very short and partly concealed by feathers. They are inhabitants of the warmer parts of both hemispheres; their food consists of insects, snails, and fruits. The true cuckoos deposit their eggs in the nests of small birds, leaving them to the care of the foster parent to hatch and bring it up with their own brood. Should the nest prove too small for all, the young cuckoo turns out one or two of its helpless companions. Other species, however, build nests and rear their young; these are inhabitants of North America.

II. The second section contains the gallinaceous, wading, and aquatic birds, which generally build their nests on the ground, have their young hatched with their eyes open, and covered with soft downy feathers; most of them walk about to collect their own food as soon as they quit the shell.

The family of Pigeons (COLUMBIDÆ, Cases 84—88) have their feet and tail formed like the perching birds, but the base of the upper mandible is covered with a soft, tumid membrane, in which the nostrils are pierced. The Tree Pigeons (*Treroninæ*, Case 84) have the bill short, convex above, and hooked at the tip; their wings lengthened and pointed; their tarsi short, and the toes free at base and broad beneath. They are found in Asia, Africa, and Australia, where they reside in woods, feeding on fruits and berries. The Pigeons (*Columbidæ*, Cases 85—87) have the bill rather long and slender, compressed and slightly hooked at the tip; their wings moderate and pointed; their tarsi moderate, with the toes lengthened. These birds are inhabitants of most parts of the world; their food consists of grain and seeds. The Ground Doves (*Gourinæ*, Case 88) have the bill lengthened and straight and slender; their wings short and rounded, with the tarsi generally long and slender as well as the toes. Mostly found on the ground seeking for grains and seeds, in most parts of both hemispheres.

The GALLINACEOUS BIRDS (*Gallinæ*, Linn., Cases 84—106) have long muscular legs, well adapted to walking, short wings, and blunt claws. They live chiefly on the ground, laying their eggs on the earth; the males are generally polygamous.

The family of Curassows (CRACIDÆ, Cases 89 and 90) are peculiar to tropical America, living in the woods, building in the trees, and easily tamed. They have the base of the beak surrounded with a soft skin, a large rounded tail, composed of broad rigid feathers, and their windpipe is very variously twisted. The Penelopes (*Penelopinæ*, Case 89) have a slender bill, broad at the base, curved and gibbose at the tip; their orbits and throat are more or less naked. These birds are peculiar to South America, where they live in small flocks on such trees as they frequent for the sake of the fruits, at other times searching the ground for worms, insects, &c. The Curassows (*Cracinæ*, Case 90) have the bill short, much arched from the base, compressed; their orbits and cheeks more or less naked. These birds are very numerous in

the woods of South America; their food consists of buds, fruits, and roots.

The family of Pheasants (*PHASIANIDÆ*, Cases 91—103) have the hind toe placed higher on the tarsus than the front ones, so that only the tip touches the ground. Their bill is arched, and the nostril is covered with a vaulted, smooth, naked, horny scale. The tarsus is naked, and that of the male is generally furnished with one or more spurs. These birds are much sought after as food, and often domesticated for the purpose; they are, at the same time, often the most beautiful of the class. The male is generally the largest and finest coloured, and they are most usually ornamented with wattles, combs, or crests. The wings are generally short and rounded. The Peacocks (*Pavoninae*, Cases 91—93) have the tail lengthened and composed of numerous feathers, which spread into a complete circle at the will of the birds. They are inhabitants of Asia, where they inhabit the woods and jungles; feeding on grains, buds, &c. The Pheasants (*Phasianinae*, Cases 94 and 95) have the tail lengthened, with tail feathers narrowed and pointed; their cheeks more or less naked. These are found wild in various parts of Asia, but some of them have become naturalized in Europe; they feed on grain, seeds, roots, and insects. The Fowls (*Gallinae*, Cases 96—99) have the tail more or less arched, and the sides compressed; the sides of their head naked, with wattles from each cheek; their tarsi lengthened and spurred. They inhabit the jungles and woods of the continent and isles of India; their food consists of grains and fruits, &c. The Turkeys (*Meleagrinae*, Cases 99 and 100) have the head and neck naked; their tail short and rounded. Turkeys are found in the forests of North and Central America, where they feed on grain and other vegetable substances. The Impeyan Pheasants (*Lophophorinae*, Case 100) have the upper mandible overlapping the lower; their cheeks are clothed with small feathers; their tarsi short and armed with spurs. These birds inhabit the northern parts of India, and feed on bulbous roots, which they dig up by means of their bill. The Partridges (*Perdicinae*, Cases 101—103) have the bill moderate, arched and hooked at the tip; their wings short and concave; their tarsi moderate, naked, in some species armed with spurs. Found both in the Old and New World, where they inhabit plains; they feed on the ground on grain and other vegetable substances. The Turnix (*Turnicinae*, Case 101) have short compressed bills, with the lower mandible angulated near the tip; their wings rather short, and their legs moderate, with the toes three and free at the base. These birds are found in the sandy regions, where they feed on grains.

The family of the Grouse (*TETRAONIDÆ*, Cases 104 and 105) have many characteristics in common with the former, but their legs are generally more or less covered with feathers, as are also the horny vaulted scales over the nostrils, and the wings are generally long and acute. The Grouse are peculiar to the northern parts of Europe and America. The Grouse (*Tetraoninae*, Cases 104 and 105) have a naked space above each eye, and their legs and toes more or less clothed with feathers; their bill short and arched and gibbose at the tip; their nostrils basal and concealed. They are natives of the forests of the high northern latitudes and of the highest mountains of Central Europe; they feed on

buds, fruits, and grain. The Sand Grouse (*Pteroclinæ*, Case 105) have the bill short, convex, with the culmen curved to the tip; their wings very long and pointed; their legs short, with the front of the tarsi plumed, and the toes three, with the hind one, in most, rudimental. They inhabit the deserts of Africa and Asia, but two or three are found in Europe; the food consists of grains, &c.

The family of Sheath-Bills (*CHIONIDÆ*, Case 106) are like the Grouse, but they have the nostrils surrounded by a kind of sheath. The *Attagis* has the habits of a grouse; it lives on the high mountains of South America. The *Thinocori*, on the contrary, so much resemble a snipe in their flight and manners, that the American sportsmen call them short-billed snipes; they have the bill and wings of *Glareola*, and the sternum of plovers and sandpipers; they inhabit the plains or dry pasture land of South America, where they feed on herbage. The Sheath-Bill (*Chionis*) is often found far out at sea, but they chiefly inhabit the tidal rocks, feeding on sea-weed and shells, which has caused some naturalists to place them with the water birds; they are confined to the southern parts of the Southern Ocean.

The family of Tinamous (*TINAMIDÆ*, Case 106) are peculiar to the warmer parts of the world. They are intermediate in form between the partridges and the bustards, having the long neck and legs and the small feet of the latter, and the nostrils covered with a naked scale like the pheasants. The beak varies in length; their wings are short, and the tail and hind toe are rudimentary. The Tinamous (*Tinamina*, Case 106) have the bill moderate, slender, and rather rounded at the tip, with the nostrils pierced in the middle of each side; their wings are short, and the tail is scarcely visible; their legs short and furnished with three toes, though in some the hind toe partakes of the form of a claw; they are peculiar to South America, where these birds are seen either among the low brushwood or tall grass. The food consists of fruits and insects.

The family of Megapodius (*MEGAPODIIDÆ*, Case 106) are peculiar to the Australian islands; their head is rather naked, their bill vaulted, and the nostrils large, rounded, and placed in a wide nasal groove; their legs are short, strong, spurless, and their feet are furnished with long blunt claws. Their eggs are very large. The *Megapodius* lays them on the sea shore; the *Alectura* (like snakes) deposits them in decaying leaves, &c., which they collect for the purpose into heaps, several laying in the same heap, thus taking advantage of the warmth produced by their fermentation. They are very good for eating.

The WADING BIRDS (*GRALLÆ*, Cases 107—134) have long slender legs, and the lower part of the thighs naked. Some of these birds have short wings which assist them in running.

The family of Ostriches (*STRUTHIONIDÆ*, Cases 107—109), which inhabit plains, are peculiar for the shortness of their wings, which are inadequate to perform the function of flight; their bills are of various forms; their legs generally lengthened and strong. The Ostriches (*Struthionina*, Cases 107—109) have short depressed bills; their wings rudimentary, and the legs lengthened and furnished with two or three toes. They are found in flocks, and subsist on grains, fruits, and herbage. Some of them swim with facility. The Dodos (*Didina*, Case 108.) These birds have become entirely extinct, and are only known

by remains, as for example, the foot in this Case, (presented by the Royal Society,) and a head (of which there is a cast in this Case) and foot, said to have belonged to a specimen which was formerly in Tradescant's Museum, now forming part of the Ashmolean Museum at Oxford. The bird represented in the painting, in the shortness of the wings and colour, has much analogy to the ostrich, but its foot greatly resembles that of the common fowl, and the head, from the cere and the position and form of its nostrils, is most nearly allied to the vultures; so that if these remains really belonged to one species, and that the one here represented, its true place in the series of birds is not as yet satisfactorily determined. An original painting of this bird, presented to the Museum by George Edwards, and copied in his works, plate 294, who says it was "drawn in Holland, from a living bird brought from St. Maurice's Island, in the East Indies," is placed on the back of the Case. The *Apteryginæ* (Case 108) have the bill lengthened, slender and rather curved, marked on each side with a groove; the nostrils are at the tip, which overlaps the lower mandible; their wings are very short and armed with a spine; the hind toe is only visible in the form of a claw. Peculiar to New Zealand, where they are nocturnal birds, and feed on worms and insects.

The other *Wading Birds* have long wings and fly well; many of them make periodical migrations, and are thus distributed over great part of the globe; they usually extend their legs behind them when they fly; place their nests near marshy places, or conceal them on the ground among the tufted plants. The eggs of these birds have spots on a grey, yellow, green, bluish red, or reddish ground. They are rarely spheroid, being mostly elongated and diminishing very rapidly from the large end.

The family of Bustards (*OTIDÆ*, Cases 110—114) have the strong legs and small feet of the ostrich, but the wings are longer, and they have sometimes a small hind toe. The base of the beak is flexible, and the end hard and covered with a horny sheath. The Bustards (*Otininæ*, Cases 110, 111) have a moderate bill, slightly arched and vaulted; their wings rather short; their legs long, reticulated, and with three short toes. They are peculiar to the Eastern Hemisphere and Australia; they feed equally on grain, herbage, worms and insects. The Thick-knees (*Ædicneminaæ*, Case 112) have the bill as long as or longer than the head, depressed at the base, and compressed and vaulted at the top; their wings moderate and pointed; their legs lengthened, and with three short toes. They are found in the uncultivated open country and dry deserts, searching for worms, slugs, insects, and small reptiles. The Coursers (*Cursorinæ*, Case 112) have moderate sized bills, depressed at the base, with the culmen towards the tip curved and pointed; their wings lengthened and pointed; the legs lengthened and scutellated; the toes three or four, armed with small claws. These birds live on the sandy deserts, where they feed on worms, &c.; they run with surprising speed if disturbed. The Plovers (*Charadrinæ*, Case 113) have a moderate sized bill, with the tips swollen and arched, and the nasal groove extending to two-thirds of its length; their wings moderate, with the first quill longest; their legs elevated and slender, having three or four toes. They are found in Europe and various parts of the world. Some inhabit the open districts, and in winter proceed to the sea-coast. Others

are always found about the mouths of rivers : their food consists of worms, insects, &c., and most of them are nocturnal feeders. The Turnstones (*Cinclinæ*, Case 114) have a short bill, thick at the base, and narrowing gradually to the point, which is truncated, and the nasal groove reaches half its length ; the wings lengthened and pointed ; their tarsi rather short, with four toes. These birds feed on small shells and crustacea, which they find by turning over the stones with their bills. The Oystercatchers (*Hæmatopinæ*, Case 114). The bill of these birds is longer than the head, broad at the base, and the anterior half compressed, with the tips truncated ; their wings moderate ; the legs moderate and scutellated, with three toes united at their base by a membrane. They seek their food on the sea-shore : it consists of shell-fish, which they are enabled to wrench out by inserting their bill between the valves, also on other marine productions.

The family of Cranes (*GRUIDÆ*, Cases 115—117) have a rather short hind toe, much higher on the leg than the front ones, and a strong, hard, rather long beak, with the nostrils in the front of a broad groove. The Balearic Cranes (*Balearica*) have large open nostrils, naked cheeks, and throat-wattles. The Cariama (*Cariama*) and Trumpeters (*Pso-phia*) have short beaks ; the former has much the air of a raptorial bird, and the latter is peculiar for the metallic brilliancy of its plumage. These birds inhabit Asia, Africa, Europe, and North and South America ; they are found on the borders of rivers and inundated places, seeking for small fishes and reptiles ; others feed on grain, &c. Their voice is loud and harsh, especially that of the Trumpeter.

The family of Herons (*ARDEIDÆ*, Cases 117—126) have a hard elongated bill, and linear nostrils, covered with a thin skin, situated at the base of an indistinct, narrow groove. In some the hind toe is low down, and the middle claw toothed on the edge. The Herons (*Ardeinæ*, Cases 117—123) have the bill lengthened, generally sharp-pointed, with the gape extending beneath the eyes, and the nasal groove prolonged nearly to the tip. Others have the bill much depressed ; the legs of all are lengthened and scutellated, with the hind toe nearly on the same plane with the others. They are found wading along the banks of rivers or living in marshy places, which they search for fish, worms, reptiles, and insects. The Storks (*Ciconinæ*, Case 124) have large straight bills, without any groove for the exposed nostrils ; their legs are lengthened and reticulated, with the fore toes palmated at their base, and the hind toe placed higher. They frequent the retired marshes and borders of pools in various parts of the world, where they prey on reptiles and small fish. Many of these birds have a tuft of very soft feathers on the under side of the wings ; the Adjutants furnish the celebrated Cornacauly feathers. The Ibises (*Ibicinæ*, Case 126) have long arched bills with the culmen rounded ; the nostrils pierced in a groove, and covered by a membrane ; their wings are long, their legs moderate, with a small portion of the tibia naked, and the outer toe united at its base by a membrane. They inhabit the inundated places of various parts of the world, seeking for frogs, snails, and worms, &c. The Godwits (*Limosinæ*, Case 128) have a long bill, with the culmen rounded and the tip of the upper mandible extending a little beyond that of the lower one, the nasal groove reaching three-fourths of the length of the bill. They are found migrating, according to the season,

to various parts of the world. Their food consists of small molluscous animals, worms, &c. The Avocets (*Recurvirostrinae*, Case 128) have the bill long and slender; their legs very long, slender, with the toes short, and the outer ones more or less webbed at their base. These birds search the muddy shores or mouths of the rivers for small insects and spawn of fishes, &c. They migrate to various parts of the world. The *Totantinae* (Case 129) have the bill as long as the head, with the nasal groove extending half the length of the bill; the tip of the upper mandible projecting over the lower mandible; and their hind toe barely touching the ground. They search for worms, insects, and molluscous animals among the gravel and stones of the banks of lakes and rivers. Others seek the sea-shore of various parts of the world. The Sandpipers (*Tringinae*, Case 129) have the bill usually as long as the head, with the tip depressed, and the nasal groove very long; their toes slightly bordered, and not united at the base. They inhabit various parts of the world, seeking their food on the sea shores and in marine marshes. Others frequent the margin of lakes and rivers of the interior; their food consists of worms, insects, and small molluscous animals. The Phalaropes (*Phalaropodinae*, Case 129) have the bill rather longer than the head, and depressed throughout its whole length; both mandibles laterally grooved; their legs are moderate, slightly compressed, with the toes bordered with large scalloped membranes. They are found on the sea shores of the arctic regions, but frequently floating on the surface of the sea, even amidst the roughest waves; their food consists of insects, small molluscous animals, and worms. The Snipes (*Scolopacinae*, Case 130) have the bill lengthened, rugose at the tip, which overlaps the lower mandible; the nasal groove extends nearly the whole length; legs slender and short, with their toes rather long, and free at their base. They are inhabitants of the thickest underwood; others seek the marshy districts; their food consists of worms and insects.

The family of Rails, (*RALLIDÆ*, Cases 131—134,) whose habits are, of all these birds, the most aquatic, have many of the characters of the next order; their toes are long and slender, and the hind one is placed on a level with the others; the body is compressed. The Iacanas (*Parrinae*, Case 131) have the bill short, advanced at the base on the forehead; their toes are remarkably long, slender, and furnished with long claws, especially on the hind toe; they are found in the marshes of the warmer parts of Asia and South America, where they walk with facility on the floating leaves of aquatic plants. The Screamers (*Palmamedinae*, Case 131): the bill is slender, compressed, and the tip of the upper mandible slightly arcuated; their legs moderate and covered with reticulated scales; the toes are long, especially the hind one, all armed with straight claws; these birds inhabit the inundated grounds of South America; their food consists of aquatic plants. The Rails (*Rallinae*, Case 132) have a moderate bill, which is compressed on the sides, and grooved for two thirds of its length; their legs are rather short, with the toes long and free at the base; they live among the reeds and aquatic plants on the margin of lakes and in marshes; many of them swim with facility; their food consists of worms, insects, and molluscous animals. The Gallinules (*Gallinulinae*, Case 133) have the bill short, compressed, with the culmen extending on the forehead in the form of a shield; the legs of moderate length, and the toes are long and margined by a

scalloped membrane along their sides ; others have the toes scarcely bordered ; they are seen on the rivers, lakes, &c., swim and dive with facility, or when danger is near, hide themselves amongst the reeds or in holes on the banks of rivers ; others stand on one foot, and employ the other to convey food to the beak ; their food consists of insects, worms, and the larvæ of dragon flies. The Finfoots (*Heliorninæ*, Case 134) have a moderate straight bill, sides compressed, the tip curved and emarginated ; their legs short and rounded, and the toes greatly bordered by a scalloped membrane ; they are seen on the banks of rivers and creeks of Africa and South America, feeding on small fish and insects.

The WEB-FOOTED or AQUATIC BIRDS (*ANSERES*, *Linn.*, Cases 135—156) have their feet placed on the hinder part of the body, with short compressed tarsi, and the toes united together by a web ; their plumage is close, shining, and oily, and they live chiefly on fish, mollusca, and insects ; they place their nests either on the ground or among the reeds in the neighbourhood of water, and their eggs are white in some, and of a short rounded form, while in others they are yellow or greenish and spotted, and in form more elongate.

The family of Ducks (*ANATIDÆ*, Cases 135—151) have the bill broad, depressed, and covered with a soft skin, and furnished on the edge with a series of plates, through which they filter the water and thus separate their food ; their wings are short and moderate. The Flamingoes (*Phenicopterinæ*, Case 135) have the bill short, with the upper mandible suddenly bent downwards in the middle, and flat in front ; the lower mandible is longitudinally bent into a semicylindrical canal ; their neck and legs are very long and slender, and their toes palmated ; they are seen on the banks of rivers and lakes ; their food consists of small shell fish, insects, and spawn of fishes, which they seize by inverting the head to employ with advantage the crook of the upper mandible. The Spur-winged Geese (*Plectropterinæ*, Case 136) have the bill large, compressed at the tip, and furnished with a large nail ; their legs are lengthened, and the hind toe long and simple ; they inhabit Australia, Africa, and Asia. The Geese (*Anserinæ*, Cases 137—140) have the bill as long as the head, much elevated at its base, and the marginal lamellæ apparent ; their hind toe elevated and somewhat lobed ; they are found in various parts of the world during their periodical flights ; their food consists of grain and grass ; during the summer they inhabit more especially the marshy districts. The Swans (*Cygninæ*, Cases 141—143) have the bill higher at the base than broad, and of equal breadth throughout ; the lamellæ are nearly hid when the bill is closed ; their legs short, and the hind toe small and not lobed. Found throughout the world, and are remarkable for their graceful appearance upon the water ; their food consists of roots and other vegetable matter, the former of which they are enabled to reach in water of some depth by their great length of neck. The Ducks (*Anatinæ*, Cases 144—148) have the hind toe elevated and very slightly margined by a membrane ; their bill more or less lengthened, and the marginal lamellæ more or less apparent ; these birds are inhabitants of various parts of the world, and are generally seen on lakes and rivers of the interior, but occasionally resort to the sea shore ; their food consists of vegetables, grains, insects, and shell fish. The Sea Ducks (*Fuligininæ*, Cases 148—150) have the hind toe short and furnished with a broad

marginal membrane; their bills are short and much elevated at the base; these are principally inhabitants of the ocean or saline lakes, but a few are found on lakes and rivers of the interior of the country; they obtain their food principally by diving, which consists of small crabs, shell fish, and aquatic plants. The *Erismaturinæ* (Case 150) have a lengthened and cuneiform tail, composed of numerous narrow pointed feathers; their hind toe is moderately webbed; they are seen on the fresh water or saline lakes and interior seas of northern and eastern Europe, &c.; their food consists of vegetable matter, for which they often dive. The Mergansers (*Merginæ*, Case 151) have narrow cylindrical bills, with the margin serrated and the tip armed with a hooked nail; they are found in the Arctic regions; their food consists principally of fish, which they take by rapid diving, also small crabs and insects.

The family of the Divers (COLYMBIDÆ, Cases 152 and 153) have very moderately feathered short wings, and the legs placed so far back on the body, that they always assume an erect position. The bill is compressed at the tip, and pointed. Some suspend their nests on rushes at the surface of the water. The Divers (*Colymbinæ*, Case 152) have the feet large, with the outer toe longer than the middle one, and all the front ones entirely webbed, with the hind toe connected to the outer membrane of the inner one, and lobed. They are found in the northern regions, visiting the lakes of the interior during their breeding season. They are rapid divers, feeding on fish, and sometimes vegetables. The Grebes (*Podicipinæ*, Case 153) have the toes flattened, separate, and broadly fringed on the sides by a membrane, and their outer longer than the middle one; their bill is lengthened and pointed; found in most parts of the world, on the lakes, rivers, and fens of the interior; others seek the ocean, especially during the winter. Their food consists of small fish, crabs, insects, and fry of fish, and are said to carry their young under their wings when alarmed.

The family of Auks (ALCIDÆ, Cases 154 and 155) have, like the Divers, very short wings, and the legs placed far behind the centre of the body, which enables them to stand nearly erect, but they have the toes all united by a web. They are oceanic birds. In some the wings are covered with feathers, and they mostly have no hind toe. Some of these birds deposit their eggs in a sort of burrow, which they dig like rabbits. The Auks (*Alcinæ*, Case 154) have a compressed and keeled bill, with the tip acute and hooked; their wings very short but perfectly formed. The hind toe is wanting. They are found in the Northern Ocean, and appear in the more temperate climates during the winter; feed on fish and small crabs. The Sea Parrots (*Phaleridinæ*, Case 15) have the bill as long or shorter than the head, depressed at the base, with the culmen arched and emarginated at the tip; the base of some is covered by an osseous membrane; their wings are short and pointed; the hind toe is wanting. They live generally in flocks far from land, in the Arctic regions; their food consists of crabs, shell-fish, and other small marine animals. The Guillemots (*Urinæ*, Case 155) have the bill straight, compressed, convex, with the tip curved and notched; their wings short; the hind toe is wanting. They inhabit the Arctic Sea, and swim and dive in pursuit of their finny prey, exercising their wings in the water as much as their feet. The Penguins (*Spheniscinæ*, Case 154) have the

bill lengthened, curved, and hooked at the tip ; their nostrils placed in a long nasal groove ; their wings are short, imperfectly formed, being only covered by scale-like plumes ; their hind toe short and united to the side of the inner toe. They are found in the Antarctic regions, where they feed on fish, cuttlefish, crustacea, &c.

The remainder of the Web-footed Birds have very long wings, which enable them to suspend themselves in the air for a great length of time, so that it almost appears to be their proper sphere, as they are seldom seen on the ground except in the breeding season. They construct their nests in the clefts of rocks or on little hillocks.

The family of Gulls (*LARIDÆ*, Cases 156—161) have the hind toe free, and sometimes very short and rudimentary, and a compressed bill. The Petrels have the bill strongly hooked at the end ; their hind claw is placed immediately on the tarsus, without any toe. Of all the Water Birds, these keep more especially out at sea ; they often fly so far from land that during tempests they are obliged to take refuge on board the vessels they may happen to fall in with. They build in holes on rocks, and when attacked, squirt out a quantity of acrid oil from their stomachs. The Petrels (*Procellariæ*, Cases 156 and 157) have the bill longer than the head, formed of several pieces, and acutely hooked ; their nostrils tubular, at the base or on the side of the bill ; their hind toe is elevated, and consists merely of a claw. They are inhabitants of the higher latitudes of both hemispheres, and are almost constantly seen on the wing, only alighting on the ocean to take a short repose, rarely coming to land, except during the breeding season ; their food consists of fish, &c. The Gulls (*Larinæ*, Cases 158—160) have the bill moderate, compressed, with the tip hooked and acute ; their nostrils placed in the middle of the bill ; their wings very long and pointed ; their hind toe elevated from the ground, very small and free. They are found in every part of the world, feeding most greedily on all kinds of animal matter, fish, &c. Others seek for food in the interior, which consists of worms, slugs, and larvæ of insects. Some attack their brothers of the ocean, and cause them to drop or even disgorge their prey, which they then seize before it arrives at the water. The Skimmers (*Rhynchopinæ*, Case 161) have the upper mandible much shorter than the lower ; both are straight, very much compressed, and truncated at their ends ; their wings very long and curved ; found in the tropical climates, where they keep in small flocks near the shores, or in salt marshes, and seldom venture far to sea, as they are bad swimmers. They feed on small fish, skimming along the surface of the sea, in which they dip the lower mandible, the upper being elevated out of the water until the prey is felt by the lower. The Terns (*Sterninæ*, Case 161) have the bill lengthened, straight, slender, and rather curved at the tip ; their nostrils placed near the base and linear ; their wings very long and pointed ; their legs rather short, with the hind toe always elevated if apparent. These birds are met with on almost every sea coast in the world, and occasionally proceed inland to the lakes, &c. They are continually seen on the wing, and sometimes found at very great distances from the land ; their food consists principally of fish, some also attack the eggs and young of water birds ; others feed solely on insects, like the swallows.

The family of Pelicans (*PELECANIDÆ*, Cases 162—166) is at once distinguished by the hind toe being united to the others by a web : their

legs are short; they are excellent swimmers, and often perch on trees; the edge of their beak is generally toothed, and their throat dilated into a bag, in which they keep the fish as they catch them, to feed their young. The Darters (*Plotinæ*, Case 162) have the bill lengthened, slender, broad at the base, much compressed, and acute at the tips, with the margins finely serrated; their neck very long and slender. They live in small flocks on the trees that overhang the rivers, &c. If alarmed they plunge directly into the water, swimming very deep, with the head only elevated above the surface. They catch fish by darting at them with their sharp bill and long vibrating neck. The Tropic Birds (*Phætoninæ*, Case 162) have a long bill, broad at the base, and dilated towards the tip, compressed and acute, and the margins finely serrated; the form of the body like the gulls, but with two lengthened middle narrow feathers. They are found in tropical climates, where they catch the fly-fish, &c., on which they prey. The Pelicans (*Pelecaninæ*, Cases 162—166) have the bill long, straight, and the tip hooked; the skin below the base of bill naked, which in many species forms a large pouch. They inhabit the marshes and the sea coasts; their food consists principally of fish, &c. They build their nests in the trees.

The following Table exhibits, at one view, the arrangement of the families of birds, and a list of the genera: the numbers indicate the Cases that contain them.

Class II.	<i>d.</i> Baza, 22.	<i>d.</i> Strix, 35.	Fam. 3. <i>Todidæ</i> .
AVES.	Pernis, 22.	Phodilus, 35.	<i>a.</i> Eurystomus, 39.
Order I. ACCIPITRES, <i>Lin.</i>	Gamponyx, 22.	Ord. II. PASSERES, <i>Lin.</i>	Coracias, 39.
Fam. 1. <i>Gypætidæ</i> .	Elanus, 22.	Div. 1. Fissirostres.	Brachypteracias, 39.
Gypætos, 1.	Nauclerus, 22.	Fam. 1. <i>Caprimulgidæ</i> .	<i>b.</i> Todus, 39.
Fam. 2. <i>Cathartidæ</i> .	Milvus, 23.	<i>a.</i> Steatornis, 36.	<i>c.</i> Peltops, 39.
Neophron, 2.	Rostrhamus, 23.	Ægotheles, 36.	Cymbirhynchus, 39.
Cathartes, 3.	Cymindis, 23.	Batrachostomus, 36.	Corydon, 39.
Sarcoramphus, 4.	Ictinia, 23.	Podargus, 36, 37.	Eurylainfus, 39.
Fam. 3. <i>Vulturidæ</i> .	<i>e.</i> Heirolfalus, 24.	Nyctibius, 37.	Psarisomus, 39.
Gyps, 5.	Falco, 24.	<i>b.</i> Antrostomus, 36.	<i>d.</i> Hylomanes, 39.
Vultur, 6.	Hypotriorchis, 25.	Eurostopodus, 36.	Momotus, 39.
Otogyps, 7.	Tinnunculus, 26.	Lyncornis, 36.	Fam. 4. <i>Trogonidæ</i> .
Gypoheirax, 7.	Erythropus, 26.	Chordeilus, 37.	Priotelus, 40.
Fam. 4. <i>Falconidæ</i> .	Ieracida, 25.	Caprimulgus, 37.	Apaloderma, 40.
<i>a.</i> Aquila, 8-10.	Harpagus, 26.	Eleothreptes, 37.	Harpactes, 40.
Limnaetus, 11.	Hierax, 26.	Hydropsalis, 37.	Calurus, 40.
Spizaetus, 11.	<i>f.</i> Astur, 27.	<i>c.</i> Scotornis, 37.	Trogon, 40.
Morphnus, 11.	Micrastur, 27.	Macrodipteryx, 37.	Fam. 5. <i>Alcedinidæ</i> .
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h. Mergus, 151.	d. Uria, 155.	Pagophila, 160.	c. Sula, 162.
Fam. 2. <i>Colymbidae</i> .	Arctica, 155.	c. Rhynchops, 161.	Pelecanus, 163, 164.
a. Colymbus, 152.	Fam. 4. <i>Laridae</i> .	d. Phætusa, 161.	Phalacrocorax, 165.
b. Podiceps, 153.	a. Pelecanoides, 156.	Gelochelidon, 161.	Fregeta, 166.
Podilymbus, 153.	Puffinus, 156.	Thalasseus, 161.	

The smaller Table Cases along the sides of the room contain COLLECTIONS of the EGGS of the different kinds of BIRDS, arranged in the same series as the birds in the upright Cases; the Table Cases in each compartment of the room contain the eggs of the species in the cases which are near to them.

On the top of the upright Cases are a series of the HORNS of the different species of RUMINANT ANIMALS, shewing the variation in their developement according to their age and peculiar circumstances, as the abundance and scarcity of food, the degree of warmth under which the animal may have lived, and also some of the accidental malformations which take place in the bodies; also a series of the nose horns of the *Rhinoceri*. They are named as the specimens of the animals in the Mammalia Saloon.

The larger Table Cases across the sides of the room contain the collection of the SHELLS of MOLLUSCOUS ANIMALS (in progress of arrangement). SHELLS are the hard bodies which are secreted for their protection by the surface of certain soft inarticulated animals, (called *Mollusca*;) they are generally large enough to cover the whole of the body, but some are so small as only to protect the more important organs, as the heart, lungs, &c. The shell is formed on the animal before it is excluded from the egg, and even before the unhatched animal has gained all its organs; and a few kinds, as the *Dorides*, *Tritoniae*, *Aplysiae*, &c., which are destitute of the shell in their adult state, at which period they are covered only with a cartilaginous skin, have a shell to cover their soft and just hatched bodies, which falls off; the animal changing in form, so that these may be said to undergo a species of transformation.

The animals which form these shells constitute a particular division of the animal kingdom, which, from their being soft, fleshy, and destitute of any bony skeleton supporting jointed limbs, or of any hard ringed skin, have been called MOLLUSCA. They are covered with a muscular coat, called the *mantle*, endued with a glairy humour, and are generally of an elongated form; walking or rather gliding, on a single central foot or disk, and usually furnished with one or more pairs of organs on the head and sides, to assist them to move from place to place; but their most distinctive character is, that their nervous system consists of a certain number of medullary masses, or ganglions, distributing fibres to different parts of the body; one of the masses being placed over the gullet, and enveloping it like a collar.

The shell is formed by the hardening of the animal matter, which is

secreted by certain glands on the surface of the body, by means of chalky matter, which is also secreted by similar glands. The unhatched animal, very shortly after it is formed, begins to construct its shell; and when the animal is hatched, it deposits on the edge of the mouth of the little shell which covered its body in the egg, a small quantity of mucous secretion. This dries, and is then lined with other mucous matter, intermixed with calcareous particles, and when this becomes hardened, the animal again places on its edge another thin layer of the mucous secretion, and again lines it as before. The mucous secretion first deposited, called *periostraca*, forms the outer coat of the shell, and is of use in protecting it from injury, while the mucous matter mixed with lime, which is placed within, forms the substance of the shell itself. This alternate deposition of mucus, and of mucus mixed with calcareous matter, goes on as the animal grows, and feels, from its increasing size, the want of a larger shell for its protection. The shell is, in fact, moulded on the body of the animal itself as the body grows, and for this reason, any inequality or irregularity of the body is reproduced on the shell. If the irregularity or inequality is of a permanent character, such as a canal, tubercles, &c., it causes a permanent groove or ridge, running from the apex to the mouth of the shell, or even produced beyond it as far as the canal of the mantle extends. But besides these permanent inequalities, which are generally necessary for the functions of the animal, the Mollusca, like most other animals, appear to have seasons of activity, or development, and of rest; and in the season of activity there are often expanded from the edge of their mantle leaf-like, thread-like, or variously shaped appendages; which appendages, as soon as they are formed, generally secrete on the edge of the shell, shelly leaf-like expansions, tubular spines, &c., for their protection; these fleshy expansions are after a time gradually contracted until the period of rest recurs, and the part of the shell that is formed during this period is destitute of such appendages on its surface. Thus the marks produced by the permanent projections from ribs, grooves, &c., run from the apex to the edge of the mouth of the shell; while those produced by the alternations of the periods of rest and growth are always in concentric lines parallel with the edge of its mouth. This method of formation and enlargement allows only the inner surface and the edge of the mouth of the shell, which is immediately applied to the surface of the animal, to be within its influence, as each deposition of new matter removes the part which it covers from the animal's control; consequently all the shelly appendages, &c., on the surface, except those on the immediate edge, which were used by the animal to protect its fleshy expansions, are no longer of any use to it, though they often add greatly to the beauty of the shell.

The animal has the faculty also of mending any break or injury that its shell may receive, if it is not of such a magnitude as to derange all the functions of the animal itself; and it mends them in the same manner as it forms its shell, that is to say, by depositing first a coat of animal matter, which is moulded on the body until it is dry, and then lining it with mucous matter mixed with chalk to harden it. But as the animal is usually very desirous of getting the repairs done as quickly as possible, and is most probably damaged by the injury the shell has received, and also wants the support that the already formed shell gives

to it during its growth, these repairs are generally irregular, much more roughly executed than the shell itself, and commonly destitute of regular colour. (See Cases in the Northern Zoological Gallery.)

The shell of the unhatched animal is generally of a self or uniform colour, but after the animal is hatched, the surface becomes more or less varied or ornamented. The particles which produce this colouring of the surface are deposited while the shell is increasing in size, immediately under the outer mucous coat, (*periostraca*,) and as these particles are only secreted by peculiar glands, the colour is always disposed in a particular manner in each of the species, the glands being gradually enlarged and gradually separated, but not changed in position by the growth of the animal. All the variations exhibited in the colouring of the different species, or in the different individuals of the same species, are produced by the different position, or by the permanence or temporary interruption of the action of these glands.

By far the greater number of these animals are provided with two of these shells or valves, which are often nearly alike in size and form, and are hence called *Bivalves*, as the shells of the *Conchifera*, where one of the valves is placed on each side of the body, and they are united together by a ligament behind. In others, as those of the *Brachiopodes*, the two valves are separate, one on the upper surface or back, and the other on the under surface of the body. In others, as in the shells of *Gasteropodes*, the two valves are so unequal that the smaller one, instead of containing the body like the other valve, merely acts as a lid to close the mouth of the larger one, when the animal is retracted into it; hence it has been called an operculum. This smaller valve or operculum, is generally cartilaginous, either wholly formed of animal matter, or strengthened by a quantity of calcareous matter deposited on one or both of its surfaces. Sometimes this valve is altogether wanting, especially in those genera which have an expanded mouth compared with the size of the remaining shell.

Most of the Gasteropodous animals, especially the lung-breathing kinds, which are not provided with a second valve, prevent the evaporation of their juices, during the very hot or cold weather, when they are in a torpid state, by secreting a layer of mucus, which forms a temporary lid, called an *epiphragma*, and which is sometimes hardened by a quantity of calcareous particles. It falls off when the animal recovers from its torpidity, and is formed afresh when required.

Linnæus referred all the animals inhabiting shells to five different genera, viz., *Limax*, *Ascidia*, *Anomia*, *Chio*, and *Sepia*. These genera have become the types of five very distinct classes, viz., first, those which have a distinct fleshy organ under the body, called the foot, on which the animal walks or glides, as the first class, *Gasteropoda*, which have a distinct head and a univalve spiral shell; and the second class, the *Conchifera*, which have the mouth placed at the bottom of the bag-like mantle, and are covered with a bivalve shell. The three other classes are remarkable for being destitute of any foot, as they are attached to other bodies, float about in the sea, or walk on the tentacles which surround their head. They consist of the *Brachiopoda*, which have an attached bivalve shell and a pair of spiral arms on the sides of the mouth; the *Pteropoda*, which have a pair of fins on the sides of the head, and a very light univalve shell; and the *Cephalopoda*, so

called because they walk head downwards on the large tentacles that surround their mouth.

The more typical Mollusca have a single more or less distinct muscular foot, on which they walk, or rather glide, placed under their stomach, as the *Gasteropoda* and the *Conchifera*.

The first class of BELLY-WALKING or GASTEROPODOUS MOLLUSCA (Cases 1 to 26) walk on a broad, flat, fleshy disk under the stomach; they have a distinct head, furnished with two or more pairs of feelers, and are generally provided with a pair of eyes and other organs of sense; and their digestive organs, &c., are generally inclosed in a more or less conical bag on the back, which is covered with the mantle, which is itself usually covered with a single large, conical, often spiral valve, and they sometimes have a small horny opercular valve, which is occasionally thickened by a shelly coat. The shell being formed on the bag which contains the digestive organs, agrees with it in shape; if the bag is only a little prominent, the shell is simply conical; but if it is very long, it is then generally, for the purpose of being out of the animal's way when it walks, coiled up, and then the shell which covers it is spiral or discoidal, according as the body is coiled up on itself, or in a more or less oblique manner on a central axis. The foot is sometimes contracted to a narrow groove, and at others compressed into a vertical fin.

They are divided into two sections, according to the form of their respiratory organs, into *Ctenobranchiata*, and *Heterobranchiata* (p. 64).

The CTENOBANCHIATA, or comb-shaped-gilled Mollusca, are so called from their respiratory organs consisting of one or more comb-like gills, placed on the inner surface of the mantle, which forms an open bag in the last whorl of the shell, over the back of the neck. There is a constant current of water passing over the gills, which enters at the front and makes its way out near the inner hinder angle of the gill-cavity and mouth of the shell. This order contains the greater part of the Gasteropodous Mollusca which are furnished with large and well developed shells.

They are divided into orders, according to the food they live upon, as *Zoophagous* and *Phytophagous* (p. 56).

1. The Flesh-eating Gasteropodes, (*Zoophaga*,) or those which prey almost exclusively on dead or living animal food, as they require the blood to be more perfectly aerated, have a syphon attached to the inner side of the front part of the mantle, to enable the water more freely to arrive at their respiratory organs. Their shells are always provided with a canal, placed in the front of the pillar which is formed to protect this syphon. They are furnished with a retractile proboscis, armed with teeth, which enables them to form round holes in shells, for the purpose of extracting the inhabitant; they have this faculty in common with the *Naticæ*, which are said chiefly to attack the animals of bivalve shells; their operculum is always horny, and formed of irregular concentric plates. They are unisexual, and the females are generally much larger, and have much more ventricose whorls to their shells than the males. The eggs of these animals are contained in coriaceous cases, each holding many eggs, of which only a few gradually enlarge and come to perfection. The cases of *Buccinum undatum*, and *Fusus despectus* have been mistaken for the eggs of the oyster,

and called *oysterspat*. This error is the more remarkable, as oysters are ovoviviparous, the young being found in the branchiæ of the parent in the month of July: the eggs of *Purpura* and other genera have, by a similar error, been described as a species of *Tubularia*.

The species of these shells are extremely apt to vary according to the roughness or smoothness of the sea they live in, and the quantity and quality of their food; thus, some of the common whelks are thick and rugose, others very thin, even, and finely coloured. Rarely the whorls of these shells turn contrary to the common direction, from left to right, and sometimes, when the shell has been injured in its growth, the succeeding whorls are turned out of their usual course, and the shell becomes very much elongated or bent.

The larger species are used as food by the natives of the sea-coast, and as bait by the fishermen. In Scotland, the shell of the large *Fusus despectus* is used as a lamp. In India and China, the different species of *Turbinellus* are used to contain the oil to anoint the priests. The animal of *Purpura Lapillus* yields a beautiful purple colour, which has been considered as the Tyrian dye of the ancients; but there is little doubt that this colour was obtained from various species, which were most common in the district; the true Tyrian dye was most probably derived from *Murex trunculus*.

The family of Strombs (STROMBIDÆ, Cases 1, 2) are peculiar for having a very compressed foot, which only allows them to move from place to place by putting their foot across the line they wish to proceed, and then turning themselves over towards the places of their destination, and continually repeating this progress; they are active; their eyes are large, and placed on the end of a large thick elongated peduncle, having the slender tentacles arising out of the middle of the hinder sides, and the shell is peculiar for having a deep sinus placed on the side near the canal over the head of the animal, when it is expanded. These animals, when they arrive at their full size, expand the edge of the mantle in a remarkable degree, which causes the shell of the adult animal to be very different from that of the young. This expansion only takes place once in their lives, and not at repeated and stated periods, as in the *Murices*, &c. Their operculum is narrow and claw-like, the apex being produced beyond the point of its attachment, as it enlarges, by new layers below; they use it as a weapon of offence when they have turned themselves on their back, and the tube of the syphon is always bent towards the right side. They live on dead flesh. The genus *Terebellum* has no operculum, and live in muddy places in deep water. Some of these have the sinus separated from the canal by a space, as the *Strombi*, which have the under lip simply expanded and entire; the *Pteroceras*, or spider-claw, which has this part divided into lobes, which sheath the appendages which are produced on the edge of the mantles when the animal arrives at its perfect state of development. In others the sinus is confounded with or quite close to the canal, as in *Rostellaria*, which has an expanded or toothed outer lip to the shell; and *Terebellum*, which has a simple one and a linear mouth. *Seraphys* is a fossil genus, which only differs from the latter in having the spire enveloped by the outer whorls of the shell.

All the other flesh-eating comb-gilled Gasteropodes have a broad expanded foot, by which they glide on and attach themselves to marine

bodies; their eyes are sessile, or placed on a very short tubercle near the base, or on the tentacles.

The family of *Murices* (*MURICIDÆ*, Cases 3—8) have a more or less elongated straight syphon, and the shell has a straight tubular canal for its protection; the animal, at certain periods of its growth, expands the edge of its mantle, and, during this time, deposits appendages on the edge of the shell for their protection; these expansions of the mantle are then gradually withdrawn, and the portion of shell which the animal forms between this time and the next developement of the appendages, is of the common shape: but the expansions produced for their protection are left on the surface of the shell, forming variously shaped bands across the whorls, which have been called *varices*, from some of them looking like dilated veins; these *varices*, and the spines upon them, being formed on the expanded appendages of the mantle, exactly correspond to them in form, and afford good characters for the determination of the groups and species. In some of these animals the periodical expansions of the mantle are round, forming a convex simple granular varix on the shell, and the inner lip of the shell is generally granulated; as in the genera *Ranella*, where there is half a whorl between each varix, and *Triton*, where there is a varix on each two-thirds of a whorl. In the *Murices*, on the contrary, the expansions of the mantle are generally produced into elongated processes, the varices are consequently spinose or variously branched, and there is only one-third (or often less) of a whorl between them. The *Pollia* chiefly differ from the triton in having only indistinct or rudimentary varices. The grimace (*Personæ*) are *Tritons* with a contracted irregular mouth and thin varices; and the *Typhis* are *Murices* which have a tubular spine on the hinder part of the whorl near the spine. The inner lip of these shells is smooth.

In the other genera of this family the animal does not, or only very slightly, dilate the mantle at any period of its growth, so that the shell has a uniform surface, or marked with only slightly concentric waves, which may be considered as the rudimentary states of varices, or rather as similar to the intermediate cross ridges which are found between the varices in the *Tritons* and *Murices*, and which mark the places where the animals have rested for a short period. These ridges are generally fringed with an expansion of the *periostraca*, like the *varices*. In some of the genera, as *Pleurotoma*, *Conus*, *Fusus*, and *Pyrula*, the pillar of the shell is smooth. In others, as *Turbinellus*, *Fasciolaria*, and *Cancellaria*, this part is plaited as in the *Volutes*, but they are known from the latter by the canal of the syphon being more elongated. The *Cones* are said to feed chiefly on sea-plants, and are much attacked by the *Purpuræ*, &c.

Struthiolaria and *Aporrhais* have the animal of this family, but the syphon is bent to the right side, and the outer lip of the shell is only perfected once in the animal's life, as in the *Strombs*. The outer lip of the former is merely thickened and bent back; of the latter it is often spread out, and sometimes divided into lobes, like the *Pteroceras*, or spider-claws. Indeed the latter have been generally confounded with the *Strombs*. And it is difficult by the shell alone to separate either of the genera from *Rostellaria*, which is said to have the animal like the other *Strombidæ*.

The family of Buccinum (BUCCINIDÆ, Cases 8-11) have the syphon of the mantle recurved, and the shell has a more or less elongated canal in the front of the mouth for its protection, which is bent upwards towards the left side. Some of these animals form convex rounded varices at distant places on the whorls, like the *Tritons*, and generally have the lips veined or granular, as *Cassis*, *Cassidaria*, *Dolium*, and *Harpa*. The latter has a very large foot, nicked on each side in front, and pointed behind; its hinder part separates spontaneously when the animal is irritated. Others, like the *Murices*, have close irregular varices, which are sometimes produced into spines or branched processes, as *Ricinula*, *Purpura*, and *Magilus*. The latter is very peculiar; for the animal, when young, has a shell of the usual form, but, at a certain period of its growth, deposits in the cavity such a quantity of calcareous matter, as to produce the shell, in its subsequent growth, into a more or less elongated straight process, leaving only a small cavity for the body of the animal at its end. These shells have been taken for stalactites or mineral concretions, especially when destitute of the cavity. They live in or on corals, and the extension of the shell is to allow the animal to keep its body on a level with the surface of the growing coral. It was placed by Lamarck with the *Annelides* or worm shells, and by Guetard as a mineral. The *Ringiculæ* have been confounded with the *Auriculæ*; they are truly marine; the *Planaxes* were placed by Lamarck with the *Turbines*, but they only differ from *Purpura* in having a smaller mouth. The *Quoyiæ* are *Planaxes* with a notch in the inner lip. *Concholepas* was considered by the older conchologists as a *Patella*, but it only differs from *Purpura* in having a larger mouth and very small spire. The *Litiopæ* are small animals found on the Gulph weed; they have been placed with the *Turbines*, but they chiefly differ from *Planaxes* in having a thin transparent shell. In others the animal does not form any, or only very rudimentary, varices, as *Buccinum*, *Terebra*, *Nassa*, and *Columbella*, and the shells are covered with a horny periostraca. These genera are severally distinguished from each other by the form of the mouth; some of them, which have the lips much dilated over the base of the last whorl, have a very large foot, which is believed to secrete the shelly matter of which the lips are formed. The *Nassæ* have a moderate sized foot, which is nicked behind, and the operculum is toothed on its edge. The *Bulliæ* resemble them in most characters, but they have a very large broad foot, and the hinder part of the inner lip of the shell, being extended beyond the mouth, forms a raised enamel band round the suture of the whorls, as is also the case with the *Ancillariæ* and some *Volutes*; *Phos* and *Cyllene* have a small sinus in the front of the outer lip, like the *Strombæ*. The olives (*Oliva*, *Ancilla* and *Eburna*) have the shell covered with a polished coat, and sunk into the large expanded foot, so that only a small part of its back can be seen when the animal is walking; the front of the foot is separated from the hinder part, as in the volutes, by a deep nick on each side, and the front of the pillar of the shell is obscurely plaited. The true olives (*Oliva* and *Cyllene*) have a canal round the suture of the whorls, formed to inclose a filiform process arising from the hinder end of their small inclosed mantle, which is wanting in the *Ancillariæ*. Most of these genera are provided with a distinct operculum, except *Harpa*, the larger species of *Olives*, and the *Ancillariæ*.

The family of Volutes (VOLUTIDÆ, Cases 12—14) have a recurved syphon, and only a nick in the front of the mouth of the shell, like some of the former genera; but the front of the pillar of the shell is regularly and obliquely plaited. The foot of the animal is very large, partly hiding the shell, and generally deeply nicked on each side in front. In general the shell is covered with a distinct periostraca, as *Mitra*, *Voluta*, and *Musica*, but in a few, as *Cymbium*, the animal when any sand or other matter gets between the shell and the upper surface of its foot, secretes a quantity of shelly matter, and covers the adventitious substance with a glassy coat, so as to prevent the extraneous particles from irritating it. In some, as *Voluta angulata*, one of the sides, and in others, as *Marginella*, both sides of the mantle, are produced and reflected over the back of the shell, and the shelly matter secreted by these parts covers the outer surface of the shell with a polished coat, like the cowries. Only a few species, as *Voluta musica*, and some of the smaller *Mitres*, are provided with a horny operculum, which is entirely deficient in the other kinds. The animals of the genus *Cymbium* are ovoviviparous; the shell of the newly born animal is very large, and the apex of the spire of many of these shells is very irregularly twisted. The *Vulpeculæ* differ from *Mitra* in the outer lip being striated within. The *Imbricaria* are obconic shells with a linear mouth and many plaits on the pillar. The *Hyalinæ* differ from the *Marginellæ* in the spire being short and the outer lip only slightly thickened; and the *Persiculæ* in the outer lip not being thickened externally, and in the inner lip being cross grooved.

The family of Cowries (CYPRÆADÆ, Cases 15, 16) in the young state have a thin shell, covered with a thin periostraca, and with a wide mouth like that of *Bulla*, but, as they approach the adult age, the lobe of the mantle spreads out so as to cover the back of the shell with two large lobes, which are capable of being contracted into the cavity of the shell at will; at the same time the mouth of the shell is gradually contracted and inflexed, only leaving a narrow slit, and its back is covered with an enamel coat, deposited on its sides by the lobes of the mantle; the foot is rather small. The outer surface and edge of the lobes of the mantle are generally covered with various shaped and often branched beards. In *Cypræa*, *Luponia*, and *Ovula*, the outer coat of the shell is polished, but in *Cyprovula* and *Trivia* it is covered with raised ribs. In most of the genera both the lips are plaited, but in *Ovula* the inner one is smooth. They are said to live on sea-plants under rocks near the breakers; they walk rapidly, but expand and contract their mantle very slowly. The *Luponiæ* differ from the *Cyprææ*, the front of the inner lip being irregularly plaited. The *Erato* chiefly differs from the *Trivia* in the shell being obconical with a conical and exposed spire; some of them are smooth like the *Marginella*, from which they are easily known by the absence of the fold on the pillar, but some are ribbed across externally like the *Trivia*. The *Calpurni* differ from the *Ovulæ* in having a tubercle on each side, and the shuttles (*radius*) in the canal being extended at each end of the mouth.

Near this family must be placed, for the present, the anomalous genus *Coriocella*, (Case 16,) which is peculiar among these animals for having a thin, white, ear-like shell, imbedded in the large expanded coriaceous mantle, which is nicked in front for the syphon. They are

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Buccina with a very reduced shell, like the *Vitrinæ* among the snails (*Helices*).

2. The Phytophagous Gasteropodes, (PHYTOPHAGA,) so called because they live chiefly on vegetable food, are destitute of any distinct syphon for the passage of water to the branchial cavity, and therefore have no canal in front of the mouth of the shell; their eggs are membranaceous, and often deposited on the surface of other shells; but many of the animals are ovoviviparous. Many of them have a spiral operculum or lid, which is attached to the back of the hinder part of the foot of the animal: this operculum turns round backwards on the apex of its spire, as it increases in size, by the addition of new matter to the edge of its last whorl, so that this edge is always in the same position in the mouth of the shell. They are divided into two sections according to the position of their eyes, as *Podophthalmi* and *Eriophthalmi*, p. 58.

The *Podophthalmi* have their eyes placed on short pedicels at the back inner angle of the tentacles; their heart generally surrounds the rectum.

In most the sides of the body are furnished with a fringe sending out a series of filaments or tentacles. These are all marine, often living on rocks near the shore; when left by the tide they shut a quantity of fluid into the respiratory cavity, and close the mouth of the shell with the operculum to prevent its evaporation until the water again covers them. Many of them are hermaphrodite, like the snails, (*Helicidæ*).

The family of Turbos (TURBINIDÆ, Case 16) have solid spiral shells, with a roundish aperture, which is generally pearly within. Their operculum is spiral, and protected by a hard external shelly deposit; and the tentacles have a leaf-like appendage at their bases. They are mostly covered with a thick periostraca, but some, as *Phasianella*, are covered with a very thin transparent one, shewing the brilliant colours of the shell through it. The *Turbo Sarmaticus* is peculiar for having a layer of blackish animal matter between the outer opaque and the inner pearly coat of the shell; this coat forms a dark zone between the edges of the two coats, just within the aperture of the shell. The *Turbos* have a round mouth. The *Imperators* are top-shaped shells, and have an oblong or four-sided mouth like the *Trochi*, with which they have generally been confounded, and the pheasants (*Phasianella*) have an oblong ovate shell with an ovate mouth. The *Thicoliæ* chiefly differ from the latter in the animal being less ornamented with beards.

The family of Top-shells (TROCHIDÆ, Case 17) chiefly differ from the former in having a more conical shell with a square mouth; the operculum, which is generally orbicular, is formed of many slowly enlarging whorls, is destitute of any shelly coat, and the bases of the tentacles are without appendage. They live on the rocks and sea weed near the low water mark, and sometimes in the deeper part of the seas. The greater number of the genera are top-shaped with an oblong or four-sided mouth. In *Pyramis*, the front of the inner lip has a slight canal, and in *Cardinalia* it appears notched. In *Trochus*, *Polydonta*, *Clangulus* and *Phorcus*, the inner lip has a fold behind leading into the cavity of the shell, and the axis is imperforated. In *Trochus* the inner lip is smooth, in *Polydonta* it is grooved, in *Clangulus* it is toothed, and in

Phorcus the axis is deeply umbilicated. In *Ziziphinus*, *Cantharidus* and *Thalotia*, the mouth is oblong and simple, and the axis of the shell is covered by the inner lip; the former is top-shaped, the *Cantharidi* are ovate and green within. The *Gibbium* have a depressed top-shaped shell with perforated axes. The *Rotella* chiefly differ from them in the axis being covered with a thick callosity. The *Monodonta* are ovate thick shells, with a tooth on the inner lip, and have usually an opaque white rib within the pearly mouth. The *Talopia* are like the *Rotella*, the shell is striated and umbilicated, the umbilicus being edged with a striated callous edge, which in *Camitia* is so large as nearly to hide it. The *Margarita* are like *Gibbium*, but thin and pearly. The *Livonæ* are solid conical shells with a roundish mouth and a callosity partly covering the umbilicus. The dolphin shells (*Delphinula*) differ from all the rest in being thick turbo-like umbilicated spinose shells with a round mouth; and the *Liotia* differs from *Delphinula* in having a regular margined mouth to the shell.

The family of Stomatellas (STOMATELLIDÆ, Case 18) are very like the former, but the mouth of the shell is large and expanded compared with the size of the spire and operculum. The *Stomatellæ* have a thick depressed shell with a roundish mouth and a distinct operculum, and the *Genæ* are thin, oblong, ear-shaped shells, with a very large animal and no operculum.

The family of Ear-shells (HALIOTIDÆ, Case 18) have even a more expanded mouth than the former; they have no operculum, and the side of the foot of the animal is covered with a hard warty skin; but their most peculiar character consists in their having usually a groove or slit in the mantle, over the part where their gills are situated. In *Stomatia* the place of this slit is marked in the shell by a groove, while in *Haliotis* and *Padollus* the groove of the shell is pierced with a series of holes in front, which are gradually filled up behind as new ones are required to be formed by the growth of the animal, the last being occupied by the vent. *Padollus* chiefly differs from the former in there being a groove on the shell, rather behind the series of holes. *Deridobranchus* has a large thick shell, like *Haliotis*, which is entirely sunk in and covered by the thick hard plaited mantle of the animal. The *Ralia* have a thin angular (fossil) shell, like *Janthina*, with a central notch leaving a broad groove on the keel of the last whorl, and in *Scissurella* and *Pleurotomaria* there is a long slit in the shell, over the opening in the mantle. The former are very minute thin shells, with a small spire and a large mouth with the slit interrupted near the edge. The latter are top-shaped (fossil) shells, having an enlarged spire and an oblong four-sided mouth; they have been confounded with the *Trochi*.

The family of the keyhole limpets (FISSURELLIDÆ, Case 18) have an animal very like the ear-shells, but the shell is depressed, simply conical, not pearly, and furnished either with a hole, placed in the front of the apex, as in *Fissurella*, or with a notch in the front of the edge, as in *Emarginula* and *Parmophorus*. These holes or grooves afford a passage for the water to the respiratory organs, and for the expulsion of the fæces. In *Parmophorus* the shell is solid and the front edge is only arched, in *Emarginula* the shell is thin and cancellated, and there is a regular notch or slit in front. The *Diodoræ*, like the young *Fissurella*, have the hole in the front of the apex, but unlike them the apex is not

absorbed as the animal grows, and the hole is furnished with a funnel-shaped appendix within the cavity of the shell. *Macrochisma* has a very large hole nearly extending to the back edge of the shell. In *Pupillia* the shell is surrounded by a sharp white edge; and in *Lucapina* the mantle covers the cancellated shell, which has a large hole and a toothed edge.

The family of the Tooth-shells (DENTALIADÆ, Case 18) must also be placed here; they have been, till lately, regarded as the tubes of worms, but are now known to be formed by true Mollusca; they chiefly differ from the former family in the back being much higher and nearly cylindrical, with a very small base, and the foot is club-shaped and not used for walking. The true tooth-shells have a simple apex; the *Entalis* has a slit in the front edge of the apex, and when the apex is accidentally destroyed, the animal often secretes a spoon-shaped appendix, exerted from the apex of the cavity.

The family of LOTTIADÆ, (Case 18,) the shells of which are so similar to those of the *Patellæ*, that it is impossible to distinguish them from each other; the animals, however, which form them are quite different from those of the latter shells, whilst they are closely allied to the *Fissurellæ*, from which they scarcely differ, except in having only one gill, placed obliquely across the back, which is exerted when the animal walks. Like the *Patellæ*, the shell is modified in shape by the situation they happen to be attached to. This and the great variety produced by the abundance or scarcity of food, and by the stillness or roughness of the sea in the place they inhabit, makes it very difficult to distinguish the species of this genus.

The remainder of the *Podophthalmi* are destitute of any appendages or beards on the sides of the feet, and the insides of their shells are always opaque and porcellaneous. The tentacles are generally elongate and slender.

The family of Nerites (NERITIDÆ, Case 18) have semioval shells, with a small semicircular mouth furnished with a sharp transverse inner lip; they have the operculum articulated to the pillar lip, as the genera *Nerita*, *Neritina*, and *Navicella*; the former, which are marine, have a shelly operculum grooved on the edge, and the two latter, found in fresh water, a thin operculum with a flexible margin. The eggs of some, as the *Neritæ*, are ovate, covered with a horny skin, and attached to other shells. The *Pileoli* are (fossil) shells of a conical form with a circular base; the inner lip is expanded as far back as the hinder edge of the whorls, forming an edge to the base. The *Culanae* differ in being oblong and rather convex beneath. The crown nerites (*Clithon*) chiefly differ from the *Neritinae* in having a tubular appendage on the back edge of the outer lip, which forms a series of spines round the spire. The *Dostie* differ in having a nearly symmetrical shell with only the rudiment of a spire, and the inner lip, like *Neritina*, is only denticulated. The *Velates* have the inner lip very thick and callous behind; they are only known as fossils. The *Navicella*, or slipper-shell, has a nearly symmetrical shell with a simply recurved tip and a very large mouth, having much the appearance of some long *Patellæ*.

The family of AMPULLARIADÆ (Case 19) differ from all the foregoing in the operculum being annular; the shells are globular, and are

covered with a thick olive periostraca. The animals have long filiform tentacula, a forked forehead, and their gills, which consist of only a single series of plates, are placed in a cavity divided into two parts by a ridge; they are oviparous. The eggs are large, globular, greenish, and translucent, attached to plants under water. They live in fresh water. The genus *Ampullaria* has a thick edge to the mouth of the shell, and a thick shelly internal coat to the operculum. *Asolene* chiefly differs from the former in the animal having no syphon to the gill cavity; the operculum is simply horny. In *Marisca* and *Lanistes*, the former has dextral and the latter sinistral shells. The *Paludomi* are thick, ovate, imperforated shells, with a thickened inner lip, which have been mistaken for *Melania*.

The family of Violet-shells, or IANTHINIDÆ, (Case 19,) so called from the fine blue colour of the shells, which appear to be stained by the abundant violet juices of the animals, seem to be most nearly allied to this order. These animals, which generally float on the surface of the sea, have a large head and a small oblong foot, which has a mass of cartilaginous bubbles attached to the middle of the ventral surface, serving the office of a float, and on which the animals deposit their eggs. This part is probably a modification of the operculum. The shells are thin, with a large angular mouth, and the whorl has a deep notch in the middle of the outer lip, which is occupied by the neck of the animal when it is floating.

The family of Atalants (ATALANTIDÆ, Case 19) have the same habits, and much of the appearance of the former animals, but the foot is smaller, and the middle of its ventral surface is provided with an erect compressed rounded fin, with a sucking disk on its hinder edge, and there is a distinct shelly operculum on its peculiar mantle. Their shells are thin, transparent, and sometimes almost cartilaginous, with an angular mouth having a nick in the middle of the outer lip; the whorls are often keeled. The *Atalants* have a top-shaped spiral shell when young, but it becomes discoidal and keeled as they increase in size. The *Helicophoræ* always have oblong spiral unkeeled shells with an entire mouth.

The second division of *Phytophagous Ctenobranchous Mollusca*, or *Eriophthalmi*, are so called because their eyes are sessile, or only placed on a very small prominence at the base of the tentacles; their sides are simple. They are unisexual, and they are most usually provided with a distinctly spiral operculum. They are oviparous, but a few have their eggs hatched in the oviduct of the parent.

1. In the following families the gills are formed of triangular plates, and are not exposed; and their shells are generally regularly spiral, with a moderately-sized aperture.

The family of Nipple Shells (NATICIDÆ, Case 19) are peculiar for having a large foot, in which the hemispherical shell is imbedded, and which is much produced in front, beyond its edge; the tentacles are small, sometimes obliterated, and the mouth is hid in a groove; the operculum is spiral. They are carnivorous, forming holes in and eating the animals of bivalve shells, which usually live in similar localities with them. The eggs are deposited in a broad, expanded band, folded like a funnel, sunk in the sand on the sea shore; these bands have been described as a coral, under the name of *Flustra arenosa*. The genera

Natica and *Nacca*, which have a moderate mouth, have a large operculum; and *Cryptostoma*, which has a very large mouth, has a very small operculum. The operculum of *Nacca* is covered with a solid and shelly external coat, the outer surface of which is marked in a very different manner in the various species. The operculum of *Natica* is simply horny; *Cepatia* differ in the axis being covered with a large callosity. *Mammilla* chiefly differs from the latter in the axis of the shell being covered with a large callosity, and *Naticaria* in having a thin oblong shell with a large oblong mouth and a thin inner lip. *Ceratina* is imperforated with a large mouth, and the inner lip callous. This genus and *Naticaria* form the passage to *Cryptostoma*. The genus *Stylina*, which lives imbedded in starfish and other radiated animals, appears most nearly allied to this family, for what has been called the enlarged mantle appears to be the foot; they have a thin oblong transparent shell. The genus *Radula* is referred here provisionally until its animal is known; the shell is solid and Nerite-like, with a rounded inner lip, having a deep notch in its centre; the throat is sometimes striated.

The animals of the following families have usually a moderately sized foot.

The family of Periwinkles (LITTORINIDÆ, Case 20) have a free oval, spiral, or subspiral horny operculum; the shells generally have a roundish mouth, and are not pearly within; some have a simple round mouth, with a concave inner lip, as the *Littorinæ* and *Assiminia*. *Lacuna* differs in the pillar lip being flattened, and the axis pierced. The *Medoria* are like the *Lacuna*, but more solid, and covered with a rough periostracum. *Nioma* has a white spirally striated shell with a deeply perforated axis. The *Pagodus* has a top-like shell like the *Trochi*, with which they have generally been confounded, but they have an ovate mouth and operculum, and the shell is not pearly. The *Moduli* only differ from them in the shell being more depressed and the inner lip having a distinct notch forming a tooth; they have been confounded with the *Monodonta*. *Scalaria* is remarkable for having a white shell, marked with numerous varices, and the whorls are often only united to one another by the projections of the varices, thus exhibiting what is the case with all shells, that they are only formed of a coiled up, gradually enlarging tube. They are said to be carnivorous, like the *Murices*. *Cyclotrema* only differs from *Scalaria* in being depressed and largely umbilicated; and *Clathrus* in the whorls being closely united, as in most other shells.

Risella is like *Littorina*, but the shell is top-shaped, the whorls keeled, and the mouth rather square.

The SOLARIUM, or Stair-case Shells, are equally top-shaped and opaque, but the whorls are squarish, keeled on both sides, and so placed as to leave a wide conical cavity in the axis, which has been compared to a well staircase, hence their name. The operculum is ovate horny. *Torinia* differs in having a nearly orbicular operculum, which is very convex, and marked with a spiral ridge looking like a pagoda. The *Turritellæ* are turreted, and marine; the mouth of the shell is squarish, and the operculum orbicular, many-whorled. The *Haustators* chiefly differ in the outer lip being marked with a deep notch leaving a groove on the whorls. The *Zaria* has an ovate mouth, rather

* The *Littorinæ* only have the gills in the form of small
 rows, the inner surface of the mantle
 The *Melanos* have the same kind of peduncled gills as the
 and so.

produced in front. *Mesalia* is very like the former, but the mouth is round and produced into a slight canal in front, and the front of the inner lip is slightly twisted. *Eglisia* has a round mouth with the outer lip rather thickened internally. The *Eulimæ* are like the *Turritellæ*, but the shells are solid, opaque white, internally variced, and polished, and *Nisso* differs from them in being umbilicated. The *Melanæ* and *Cerithia*, which have also generally elongated turreted shells, usually have a more or less distinct groove or nick in the front of the mouth. They are all fluviatile, or only found at the mouth of rivers where the water is brackish, and they are covered with a hard black periostraca on the surface, and are often eroded; sometimes the tips are quite destroyed, the cavity of the shell being filled up at top as the apex is eroded. The *Melanæ* have an ovate entire mouth, with a thin outer lip to the shells, and an ovate operculum. The *Tiaræ* differ in having an ovate shell. *Pachystoma* differs in the outer lip being variced. The genera *Tania*, *Anculosa*, and *Io* have the mouth of the shell truncated in front of the axis, as in *Achatina*; the former having a turreted, the second an ovate short, and the latter a fusiform shell with a large mouth. The *Melanopses* and the *Pyrenæ* have a nick quite like the *Buccina*; but they are easily known from the marine zoophaga by their structure and mode of life. The *Cerithiums* have a more or less distinct recurved canal, and indistinct varices, like some of the *Tritons*, but their outer lip is rather expanded, which induced the older conchologists to place them with the *Strombs*. The genera *Cerithium* and *Vertagus* have an ovate operculum like the *Melanæ*. The *Potamides*, *Telescopium* and *Pyrazus* have a rounder mouth to the shell and an orbicular many-whorled operculum. *Tristoma* differs from the latter in having a contracted mouth, and tubular hole, like the *Typhis*, at the posterior angle of the outer lip. *Vibex* and *Ceriphasia* differ from *Cerithium* in having only a very slight groove-like canal. They have an ovate operculum.

The family of Looping Snails (TRUNCATELLIDÆ, Case 20) have an oval spiral operculum, and the same form of animal as the former family, but the foot is small, and the lips very large and expanded; the animal walks by contracting the space between these parts into a loop, like the Looper or Geometric Caterpillars.

The family of Pond Snails, (PALUDINIDÆ, Case 21,) like the *Ampullariadæ*, and unlike the other families of this group, are fresh water Mollusca, with the opercula formed of regular rings, but they differ from the *Ampullariadæ* in having short tentacles, sessile eyes, and an entire forehead. The *Paludinæ* have a horny operculum, and are ovoviviparous, while the *Bithiniæ*, which have a shelly operculum, are oviparous, like *Lymnææ*. *Meladomus* are like *Paludinæ*, but sinistral.

The family of VELUTINIDÆ (Case 21) have an animal very like the *Littorinidæ*, but they are destitute of any operculum, and the shell is small for the size of the animal, with a very short spire and a large mouth. They live on stones on the sea shore.

The family of Pyramid Shells (PYRAMIDELLIDÆ, Case 21) are at once known by the oblique plaits on the front of the pillar lip of the polished, spotted, turreted shell, and by their tentacles being broad and folded like the ears of a hare; they have the eyes at the inner side of their base, like the *Auriculæ*; their operculum is horny, with a flap on the inner side to adapt it to the plaits on the pillar. The genus *Odos-*

tomia has a single plait on the pillar, and the operculum has a flap, but the animal is unknown. The genus *Nerinea*, which is established on a number of turreted fossil shells, appears allied to this family; it is peculiar for the outer side of the cavity as well as the pillar being furnished with spiral ridges; the outer sides of the cavity of *Pyramidella*, and some *Cerithia*, only have the toothed cross ridges placed at certain distances, and never continued ones.

The family of Turned Shells (TORNATELLIDÆ, Case 21) also have plaits on the pillar, and a horny operculum with a flap; but the animal has no true tentacles, only an expanded disk on the front of the body, somewhat like the disk of the *Bullidæ*. The genus *Tornatella* have thin shells with oblique plaits on the pillar; the *Solidulæ* have very heavy shells with a callous inner lip and two plaits. The *Cinulia* are like the *Tornatella* with two plaits, and the outer lip is thickened externally. They are all fossils, and *Monotygma* has only a single plait.

2. The animals of the families which follow have their gills formed of long filaments, and often exerted when the animal is expanded; their shells are very variable and anomalous in form, and often have a very large aperture.

The family of Valve Shells (VALVATIDÆ, Case 21) are small fluviatile Mollusca, found in rivulets, with an orbicular many-whorled spiral operculum; they are remarkable for having their gills, which are formed of long spiral plates, protruded on the outer side of their base beyond the shell when they walk. The shells are regular spiral, with a round simple mouth, and covered with a pale olive periostraca.

The family of Worm Shells (*Vermetidæ*, Case 21) are peculiar for having an irregularly tubular shell, which is generally attached, by its outer surface, to shells and other marine bodies. The body is elongate, and living thus fixed, the foot is not furnished with a distinct disk for walking; its two ends are folded together, and its hinder end is produced into a flat orbicular disk, as large as the mouth of the shell, which is generally protected by an orbicular horny operculum. The operculum is very variable in form; it is sometimes concave, with a central scar, at others it is formed of many whorls with a thin raised outer edge, and in *Siliquaria*, after the animal has arrived at its full size, it continues to form new whorls to the horny operculum, which are all of the size of the mouth of the shell. This latter genus is also peculiar for the mantle having a slit near the edge of the gill, as in the *Haliotides*, and its tubular shell is also furnished with a similar slit. The genus *Spiroglyphus*, instead of a tube, forms a groove on the surface of other shells, which it covers over with shelly matter and converts into a tubular case for its body; in their young state these animals assume a regular spiral form, but after a time they often take another direction. It is very difficult to distinguish the shell of the *Vermeti* from the temporary shelly case formed by some kind of worms, as *Serpula*; some species appear to be destitute of any operculum. The *Vermetus* has a concave orbicular operculum with a rugose central scar. The *Bivinae* have an orbicular spiral operculum with an oblong lateral scar, like the *Trochi*. The *Vermilia* has the mouth of the tube surrounded by three spines, and the *Hatina* has no operculum.

The family of VANICOROIDÆ appears to unite the *Vermetidæ* to the next family; they have a cancellated white shell, somewhat like an um-

bilicated *Natica*, but thinner. The animal is very like *Capulus*, but the foot is divided into two parts by a deep groove; the front part is narrow, concave, and strap-shaped, and the hinder orbicular and flat. Each of the sides is furnished with a broad wing-like membranaceous expansion, and the operculum is thin, horny, not shewing any spire.

The family of Foolscap Limpets (CAPULIDÆ, Case 21) have a short conical body, covered with a simple conical shell, having a subspiral tip; they are attached to rocks and other marine bodies like Limpets, with which they were formerly confounded, but they differ from them in their gills forming an oblique line across the back of the neck of animal; their eggs, contained in the membranaceous cases, are often affixed in radiating groups to the side of the foot. The shells of the very young animal are spiral and horn coloured. In *Capulus* the foot is flat, with a plaited front edge; in *Hipponyx* and *Sabia*, it is, as it were, folded on itself, and is unfit for walking upon; the back of the foot of the former of these animals secretes a shelly plate, marked with a horse-shoe shaped muscular impression, like an operculum; and in the latter it forms a depression by corroding a space on the surface of the shell to which it is attached, of the size of its own shell, and marked with a crescent-shaped ridge, shewing the place where the muscles were affixed: the genus *Brocchia* only differs from *Capulus* in having a broad sinus on the right side of the aperture. The *Amathina* differ from *Capulus* in having three or more strong longitudinal ridges in front. The genus *Pedicularia* is peculiar for the apex being on one side of the shell, and with a different kind of surface to the margin; its animal is unknown; it lives on coral in the Sicilian sea. All these shells adapt themselves to the form of the body to which they are attached; if in the inside of a shell they become concave outwards, and are without their colour, hence the genus *Spiracella*.

The family of Slipper Shells (CREPIDULIDÆ, Case 21) chiefly differ from the former family in the body and shell being somewhat spiral, but they differ from most other spiral shells in the hinder lip being deeply concave, and furnished with a much raised edge, so as to inclose the whole of the foot of the animal when it is living attached to marine bodies like the Limpets, which they greatly resemble in their shape and manner of life. The shells of this family vary considerably in shape; indeed, so much so that it is difficult to believe how they could be formed by the same kind of animals, yet, when a large series of them are compared, they so gradually pass one into the other that it is not easy to separate them even into genera. In *Crepidula* and *Calyptræa* the apex is spiral: in some of the latter genus the axis is perforated. The *Trochita* differ from the *Calyptræa* in the lamina being only reduced to a simple oblique plate. The *Crepidula* often live in groups attached to the outside of each other; then the shells are very convex, when isolated and found on the inside of other shells they are flat or concave. In some species, otherwise allied to *Calyptræa*, the spire is so reduced in length, and the lamina which separates the whorls of the body is so rudimentary, that nothing but the part which surrounds the much enlarged perforation of the axis is left; these modifications, when fully developed, have been called the Cup and Saucer Limpet (*Dispotea*). The *Cremoria*, on the other hand, have only a folded plate on the apex of the cavity to support the back of the body, which is

probably a modification of the plate usually found between the whorls of the body. The animals of this genus have the faculty of secreting a cup-shaped shelly plate to support their foot, like the *Hipponyces*, but it is distinguished from the plate of the latter by being furnished with an oval central scar.

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470* The family of Carrier Shells (PHORIDÆ, Case 21) must be placed here provisionally until their animal is better known, although it has a horny subangular operculum like the Zoophagous Ctenobranchiate Mollusca. The foot is moderate, and the eyes are at the base of the subulate tentacles. Their shell is conical, much like a *Calyptrea* in shape, but they have the peculiarity of attaching to the outer surface of their shell, as it enlarges in size, stones, fragments of other shells, coral, and other marine substances, from whence they have been called, respectively, "the Conchologist" and "the Mineralogist." Some species have this habit only in an early stage, others retain it during the whole period of their life. The *Onusti* have regular shells and a large conical concavity on the axis, and the *Phori* are imperforated and generally irregularly formed.

The HETEROBRANCHIATA differ from the *Ctenobranchiata* in having variously formed gills, or respiring by means of lungs.

The next order of Gasteropodous Mollusca are called PLEUROBRANCHIATA, (Case 21,) from their gills, which are composed of plates, being placed on the right side of the back, and covered with a thin mantle, which is sometimes protected by a small shell, more or less sunk within its substance. They have no operculum, and usually swim about the ocean, aided by the membranaceous appendages on the side of the foot.

In some, the gills are on the side of the back, and covered by the mantle, as the families *Bullidæ* and *Aplysiadæ*.

The family of Bubble Shells (BULLIDÆ, Case 21) have the head or front part of the animals without any distinct tentacula, the eyes being placed in a flat shield, as in the genera *Bulla*, *Bullæa*, *Acera*, and *Gasteroptera*; the latter has no shell, and the sides of its head are dilated into large wings, by means of which it swims about in every direction. The *Bullæa* are very voracious, and prey on shell-fish, for which purpose they are furnished with a gizzard covered with three shelly plates, by means of which they can crack the shells after having swallowed them whole. The *Bullina* have the edge of the frontal disk produced into lobes.

The family of Sea Hares, (APLYSIADÆ, Case 21,) so called from the form they assume when sitting on the rocks, have an elongated head and distinct tentacula; as the genera *Aplysia*, *Dolabella*, and *Notar-chus*; the latter has no shell, and the *Aplysiæ* emit a great quantity of a purple fluid. The eggs are very numerous, and are deposited in long threads, which are often interlaced together. The shell of *Dolabella* is hard and thick, while that of *Aplysia* scarcely consists of more than animal matter, sometimes strengthened by a thin calcareous internal layer.

The family of Firoles, (PTEROTRACHEIDÆ, Case 21,) which Lamarck separated into an order under the name of *Heteropodes*, on account of their foot being compressed, as in the *Atalants*, into a rounded, erect, muscular fin, with only a sucker at its hinder edge, appear to be most

allied to these families. The viscera, as in the slugs, are chiefly contained in the elongated, transparent, gelatinous body, which usually ends in a tapering compressed tail; the heart and gills are protruded, forming a small dorsal mass, (which has been called the *nucleus*,) and which in *Pterotrachea* and *Firola* is naked, but in *Carinaria* is covered with a very thin, keeled, concentrically waved, obliquely conical, compressed shell, having a very large triangular mouth. These animals swim on the calm ocean with the back downwards; the mouth is large, provided with a cartilaginous tongue, and armed with cross rows of hooks; they have the faculty of distending the body with water. The shell of the very young *Carinaria* (which may be seen on the tip) is smooth, polished, with three or four gradually enlarging whorls, like a *Helix lucida*; it suddenly enlarges into the form of the adult shell.

Here must be placed for the present, on account of the similarity of the form and texture of the shell, the Paper Nautilus (*Argonauta*, Case 21) and probably the fossil genus *Bellerophon*. As yet only a peculiar kind of cuttle fish, with a web to the end of the longer arms, has been found in the Argonaut shells; but there are many reasons for believing that this is only a parasite, adapted by its form to live in such shells, as the web of the arms is used by the animal to embrace the shell and keep it in its right position on the body; for, unlike all other mollusca which form the shell they inhabit, the cuttle-fish is not attached to the shell by any muscle, nor has the animal any muscle like the bone-bearing cuttle-fish, formed for the purpose of attaching the body to its internal shell. Secondly, the animal when alive does not fit the shell, so that the shell cannot have been moulded upon its body, as in other mollusca. Thirdly, the skin of the animal is of the same texture and appearance as the other naked cuttle-fish, and the presence of sand between the shell and the body appears to cause no uneasiness to the animal, as it does in all other shell-bearing mollusca, where the animal immediately rids itself of the irritation so caused, by covering the sand, &c., with a calcareous coat. Lastly, the animals found in these shells are always females, and the apex of the shell is filled with very small eggs, while from the large size of the young shell which is to be seen on the apex of the true Argonaut, we should expect the animal which formed that shell, to have a large egg.

The other animals of this order have their gills placed on the right side of the body, in the groove between the edge of the mantle and the foot. They comprehend the two following families.

The family of PLEUROBRANCHIDÆ (Case 21) have none or a very thin membranaceous shell inclosed in the mantle. The edge of the mantle and the foot project; the gills, which consist of a series of pyramids formed of triangular plates, are placed between them; the head is produced, and furnished with two or four tentacles.

The family of the UMBRELLIDÆ (Case 21) have a suborbicular, flat, hard, external shell. The genus *Umbrella* was formerly supposed to have its shell placed on its foot, and was called *Gastroplax*, but this has been proved to be an error. *Tylodina* differs in the head being produced and bifid; while in *Umbrella* it is sunk into a deep cavity in the front of the foot.

The order GYMNOBRANCHIATA (Case 22) have naked gills of various forms placed on different parts of the back, or a series of plates placed

round the edge of the mantle of the animal. Many of these animals are destitute of any shell. They are all marine, and frequently swim in a reversed position, with the concave foot on the surface like a boat, using the margin of their mantle and their tentacles as oars.

The young animals of this order, and of *Aplysia*, have an external shell which soon falls off. The genus *Cirroptera* may have been established from young animals of this kind.

The families of the first section of this order have the gills placed on the back and exposed.

These animals having no shells, the greater part of the specimens will be found among the other animals in spirits in the Northern Zoological Gallery.

1. The family of Sea Lemons, or DORIDÆ, have the gills placed round the vent, which is situated in the hinder part of the back. In some, as *Doris* and *Onchidoris*, the whole body is protected by a hard convex skin, so as to resemble half a lemon; others, which are only covered with a soft skin, are generally angular; some of these have several pairs of filiform tentacles. Their eggs form gelatinous bands on stones, shells, sea-weed, &c.

2. The family of Tritons (TRITONIADÆ) have their gills of various forms, scattered on different parts of the back or sides, and the vent is placed on the middle of the side. These genera, which are all destitute of shells, are chiefly distinguished by the form of the gills; in *Glaucus*, they are in the form of a tuft of simple processes on each side of the body; in *Eolida*, they consist of similar tufts placed in lines across the back; in *Scyllæa*, they are tree-like, and placed on fin-like processes on the edge of the back; their body is compressed, and the foot narrow, which enables it to clasp the stems of the sea-weed on which it is almost constantly found. They have no jaws, while the mouth of the *Tritonia* is armed with two horny, sharp-edged, lateral jaws, like sheep-shears. The *Tethyæ* have their head enveloped in a large hood.

Briareus, which has been described as a genus of this family, is a crustacea near *Phyllosoma*.

3. The family of PLACOBANCHIDÆ have the gills in the form of laminæ, radiating from a centre, and extending all over the back of the mantle, the edges of which are rolled over towards the centre, so that they form a depressed tube on the back of the animal for the water to pass through. The head is produced, and furnished with two tentacles. From the positions these animals assume they have been called *Sea Cats*. They feed on green algæ, and are themselves generally of a deep green colour.

The other families have the gills in the form of plates on the edge of the under side of the mantle.

4. The family of PHYLLIDIADÆ (Case 22) are destitute of any shell; they have two retractile tentacles, and the vent on the side of the body. In *Phyllidia* the mantle is hard, convex, and tubercular, like the Sea Lemons; in *Diphyllidia* it is soft, with the edges turned up.

The family of Limpets (PATELLIDÆ, Case 22) have a simple conical shell, with the apex directed towards the head of the animal, contrary to what prevails in almost all other shells. The animal has two tentacles; a short snout, with a very long cartilaginous tongue, armed with cross rows of bent back spines; the heart is on the left side

of the neck, and the vent is on the right side of the body, near the head. In *Patella*, the gills form a complete series round the edge of the mantle. In *Helicon* the series is interrupted over the head, and *Lepetæ* differ from both in the animal being destitute of any eyes.

The family of Sea Woodlice (CHITONIDÆ, Case 22) are as anomalous as the above, since instead of having a single shell, they have a row of shelly valves, like plate armour, arranged in a regular series down the middle of the back. The animal has no tentacles, but a membranaceous veil over the mouth; the heart is on the rectum behind, and the vent is in the hinder margin. The *Chitons* have the upper part of the mantle covered with scales. The *Acanthopleura* have it covered with spines or elongated scales. The *Tonichia* has the upper surface of the mantle bald and cartilaginous, and the under covered with a very hard striated skin. *Acanthochetes* is peculiar for having a bundle of bristles placed on each side of the valves; and *Chitonellus* and *Amicula* differ from it in having the valves nearly hidden in the mantle of the animals. The exposed part of the valves is thick, and generally divided into three areas; the edge which is inserted into the mantle is thin, notched, or denticulated; when only a small part of the valves is exposed, the plate of insertion is large and broad.

The remaining orders of Gasteropodous Mollusca have been called PNEUMOBANCHIATA, (Case 23—26,) from their respiring free air, which is received into a cavity between the mantle and the back, lined internally with numerous reticulated vessels, like the lungs of beasts and birds. They are mostly terrestrial, and when aquatic they come to the surface of the water to respire, but they have the power of suspending their respiration for a considerable time during the cold weather of temperate and the dry season of warm climates. They are all oviparous, but in a few the eggs are hatched before they are deposited.

The greater part of the kinds of this order have the respiratory cavity closed by the edge of the mantle being attached to the back of the neck, leaving only a small hole, covered with a fleshy valve, for the entrance and escape of air. These are all hermaphrodite, and they are always destitute of any true operculum, but the mouths of their shells are closed, during the period of their torpidity, with a temporary lid, called the *epiphragma*, which is formed by the hardened juices of the body moulded on the surface of the contracted animal; this lid, which is easily removed by the pressure of the foot, when its edge has been softened by the mucous secretions of the animal within it, is renewed as often as the animals require it.

A. The more terrestrial kinds have the eyes seated at the top of the long cylindrical tentacles, which are placed above the true ones. The latter are sometimes rudimentary, or even wanting.

In some of these the head, eye-pedicels, and tentacles, can be withdrawn under the skin, which covers them like a sheath, into the cavity of the body. They have a single crescent-shaped horny upper jaw, which is often toothed on the edge. The stomach is single and membranaceous.

The family of Arions (ARIONIDÆ, Case 23) are peculiar for having the end of the tail furnished with a large gland, which secretes a quantity of mucus; this causes the end of the body to appear truncated. Their respiratory cavity is on the anterior part of the body,

the air hole is in the front of the edge of the mantle, and the orifices of reproduction are near this aperture. The shells of the animals of this family are in very different degrees of development. Sometimes, as in *Arion*, when the body is simply elongated, it consists of only a few calcareous grains; in others, which have the digestive and more important organs as it were protruding from the body in a small bag-like mantle, this part is covered with a spiral shell, which is generally thin, and sometimes itself covered, (when it is polished,) with some reflexed lobes of the mantles, as in *Helicarion*, or nearly naked, with only a thick edge to the mantle of the animal, as in *Nanina* and *Stenopus*.

The family of Snails (HELICIDÆ, Cases 23—25) have a tapering tail, without any terminal gland. Their pulmonary cavity is generally on the front of the back, and the respiratory hole is in the hinder part of its margin, while the apertures of the reproductive organs are near the base of the right tentacle. This family contains many species and genera which are difficult to distinguish, from the gradual manner in which they pass into each other.—A few genera are destitute of any shell, or if they have any, it is quite hidden in the mantle; their body is always elongate and attached to the foot the whole length; among these the *Limacellus* and *Mehimatium* are peculiar for having a large mantle covering the whole of the back, while the true Slugs, *Limax*, have only a shield-like mantle on the front of the back, like the *Arions*. Most of the genera have a more or less exposed shell, which is placed on and protects a thin membranaceous mantle, with a thickened margin, which incloses the protruded bag that contains the most important internal organs; in *Parmacella*, *Vitrina*, *Helicolimax*, &c., the margin of the mantle is broad, compared to the size of the partly inclosed shell, and forms a shield on the front of the body; in *Plectophorus* it is divided into two parts, the front part being shield-shaped, and the hinder elongate, bearing an external conical shell. In the remaining genera of this family the mantle is simple, thin, and covered with an external shell. Among the genera of this group, which includes a very large proportion of the species of the order, the *Testacella* is peculiar for having the mantle and the ear-shaped shell on the posterior extremity of the body. This animal also has the power of extending the edge of the mantle, so that it can cover up the whole of the contracted body, and thus protect it from drought; its lips are cylindrical and retractile, like the tentacles: they live, the greater part of their time, in holes under the ground, where they feed on earth-worms. In all the other genera the mantle and shell are on the central part of the foot, and the lips are short and rounded, and sometimes serrated or torn beneath. As the animals of the different genera are so similar, it is necessary to divide them into sections, according to the form of the shell. The first section, which have been generally called Snails, have the whorls twisted round a short axis into a subglobose shell, with a crescent-shaped mouth, formed by the projection of the last whorl but one into its cavity. The animal has a distinct and variously divided *vesicula multifida*. The true *Helices*, *Helicodonta*, &c., have the peristoma of the shell thickened, while the *Helicophanta*, *Epistylum*, and *Proserpina* have it thin and sharp. The *Streptaxis* is peculiar for the animal when it arrives at a certain period of its life suddenly altering the direction of the whorls of the shell, so as to move it out of the axis of the

former whorls, which gives the shell a distorted or as it were crushed appearance. The animal of the Lamp Snails, (*Anastoma*), on the contrary, when it has arrived at its full size, suddenly turns itself over, forming the permanent mouth of the shell on what was the upper or spiral side, thus reversing its natural position. The other genera are chiefly distinguished by the form and armature of the mouth of the shell. The second group chiefly differ in the whorls being on a longer axis, so that the shell is oblong. These animals have no *vesicula multifida*, and the mouth of the shell is longer than it is broad. This group is again subdivided into those that have the mouth of the shell continued without interruption into the pillar lip. The axis of their shell is generally perforated, especially in the young state, for the animal, as it grows, sometimes covers the perforation with the reflexed portion of the inner lip; and the eyes are placed, as in the snails, on the tips of the blunt tentacles. The genera of this section, as in the snails, are distinguished by the modifications that the mouth of the shell assumes when the animal has arrived at its perfect state; for during their growth they all have the same thin, simple lips. Thus the *Bulimi* have simple, thickened, reflexed lips, and gradually enlarging whorls.

The *Pupæ* have one or more solid teeth formed by the thickening of the inner edge of the lips, and the whorls enlarge in diameter so gradually (after the very early age of the animal) that the shell generally assumes a cylindrical form. The *Chondri* chiefly differ from the former in the mouth being armed with long plaits, formed by the inflection of the surface of the shell when the animal is about to complete its mouth, which forms external grooves and internal ridges. The *Clausilia* are similar to the latter, but have a continuous groove in front of the last whorls, and the animal forms, a short time before it arrives at the adult age and is about to complete the mouth of the shell, an expanded plate, (which is evidently a peculiar modification of a tooth,) attached to the pillar of the shell by a slender pedicel, and placed in such a position that it closes the throat of the shell when the animal is inclosed, while the animal can push it on one side behind the plait formed by the groove above referred to, when it desires to protrude itself from its shell and walk about to search for food. The *Siphonostoma* only differ from the former in not having the plate-like tooth above described. Other genera, as *Succinea*, *Amphibulina*, and *Bulimulus*, have most of the characters of *Bulimi*, but differ in the edge of the peristoma being thin and acute.

The group containing the *Achatinæ*, on the contrary, have the front of the mouth truncated, the axis of the shell imperforated in all its stages of growth, and the edge of the lips thin, whilst the tips of the upper tentacles of the animal are acute and produced beyond the eyes. They generally form a shelly epiphragma with a long impressed line near the outer hinder edge of the mouth of the shell, over the respiratory hole of the mantle; and they deposit very large eggs, which are generally covered with a hard shell.

The family of VERONICELLIDÆ have the head retractile into a sheath formed by the front edge of the mantle; the foot, the sides of the body, and the four tentacles are contractile, and the lower pair of tentacles are bifid. The mantle is smooth, coriaceous, extending the whole length of the back, and edging the foot. The vent and the open-

ing to the pulmonary cavity, which is placed on the hinder part of the right side, is at the hinder extremity of the body, between the edge of the mantle and the foot. They live in forests under leaves.

The family of ONCHIDIADÆ are very like the former, but the back is warty, and they have only two contractile rather club-shaped tentacles, and a broad lunate head; the respiratory organs are posterior, just under the edges of the mantle. The *Onchidia* live on aquatic plants in ditches, and *Onchis* and *Peronia* under stones on the sea shore.

B. The aquatic kinds, on the contrary, have the head and tentacles of the same structure and surface as the rest of the body, and like it, are only contractile; the eyes are always placed on the side of the base of the tentacles. They are divided into two families: the *Auriculidæ* and Pond Snails, or *Limnæadæ*.

The family of AURICULIDÆ (Case 26) are peculiar for having cylindrical tentacles, like the land slugs, and their eyes are placed on the inner side of the base of these tentacles. They have a ringed conical muzzle. The mantle is thin, with a thickened edge; they are always provided with an external spiral shell, which has a plaited pillar in all ages; and the animal has the peculiarity of absorbing the septa which separate the cavities of the whorls from one another, even in *Scarabus*, which has these parts only incompletely developed. The true *Auriculæ* have a thickened edge to the mouth of the shell, which is covered with a brown periostraca. The *Scarabus*, like *Ranella*, forms half a whorl between each period of rest, the thickened and reflexed part of the lips forming an edge to each side of the shell. The *Sidulæ* have a sharp internal ridge to the outer lip. *Carichium* is one of the smallest British shell-bearing Mollusca; it has a sinuated mouth and a reflexed lip, like a *Bulimus*. The *Conovuli*, which are found under stones on the sea-shore, and in the mud of salt marshes, have an obconic shell with a narrow linear mouth; and the *Chilinæ*, which live in clear running streams, in South America, have much the habit of the Pond Snails, from the shells of which they are chiefly to be distinguished by the sharpness of the plaits on the pillar, and by the shell being spotted.

The family of Pond Snails (LIMNÆADÆ, Case 26) differ from the former in having compressed tentacles, with the eyes at the outer side of their base; their muzzle is short and dilated at the end; their shell is uniformly horn-coloured, with a more or less oblique plait on the pillar; they live on vegetables, having a muscular stomach. Like many marine Gasteropodes, they have the power of floating on the surface of the water, with the back downwards, the concave surface of the foot forming a kind of boat; their eggs are transparent, and deposited in oval masses on water plants. The outer lip of the shell is thin, but when the ponds are dried up, the animal strengthens it by an internal rib, and forms a membranaceous epiphragma over the mouth, like the land-snails. The shells are generally external, as the *Limnææ* and *Aplexi*; the former having an oval shell and triangular tentacles, and the latter filiform tentacles and a reversed shell, like the *Planorbis*, which differ in having a discoidal depressed shell, with the whorls revolving one over the other on their own axis. The *Physæ* bear the same relation to the *Aplexi* as the *Amphipeplæ* to the *Limnææ*, but they each have the edge of the mantle produced and reflexed over their thin polished shell when

the animal is expanded. The three first genera have an upper and two lateral jaws, and simple conical teeth on the tongue, while the two latter have only a single upper jaw and serrated teeth. The *Ancylus* only differ from the Pond Snails in having a simple conical shell, which has caused them to be called fresh-water Limpets. The *Velletia* differ in the animal and shell being reversed, like the *Physæ*. The animals of *Segmentina*, which are like the *Planorbis*, deposit at each stoppage in their growth three transverse plates, which contract the mouth of the shell, and make it appear as if it was chambered; hence it has been called a fresh-water *Nautilus*; and *Discus* has teeth in the cavity of the shell.

C. The marine lung-breathing Mollusca have no distinct tentacles, as the three following families:—

The family AMPHIBOLIDÆ (Case 26) have a subglobose, spiral, umbilicated shell, with an oval mouth and a rather expanded outer lip, which is sinuated behind; the head has no tentacles, but a transverse disk across the front, which is free at top, and has the eyes placed on its outer hinder side. The operculum is horny and spiral. They are only found in the Pacific Ocean.

The family of SIPHONARIADÆ (Case 26) are like the former, but they are protected by a conical shell like a *Patella*, with which they have been confounded; but the apex is rather on one side and posterior, and the scar left by the adductor muscle near the edge of the cavity (as in *Ancylus*) is interrupted in the centre of the right side, where the breathing-hole of the dorsal respiratory cavity is placed; they have no operculum.

The family of GADINIADÆ (Case 26) have an animal and shell like the former, but the passage to the respiratory cavity is in front of the adductor muscle, its place being marked in the cavity of the shell by a slight groove.

II. In the remainder of the animals of this order, the respiratory chamber is open, that is to say, the front edge of the mantle is free from the back of the neck, leaving a large slit for the admission of the air into the bag. They are unisexual, have a distinct operculum, and two rather elongated contractile tentacles, with the eyes at the outer side of their base. They are all terrestrial, living in damp places in woods, and under stones.

The family of CYCLOSTOMIDÆ (Case 26) have a spiral operculum, and the edge of the mantle of the animal is thin and simple. The mouth of the shell is round, and often furnished with an external rim. The operculum is sometimes extremely beautiful, having a more or less developed raised edge to the outer side of each of the whorls. In the *Cyclostoma*, which have a shelly operculum and simple mouth to the shell, the foot of the animal is divided into two equal parts by a longitudinal groove, and the animal walks by alternately moving forward first one and then the other of these sides. In *Cyclophorus*, *Pterocyclos* and *Megalomastoma*, which have a horny many-whorled operculum, the foot is simple, and the animal glides along like most other Gasteropodes. Some of these, as *Pterocyclos*, have a more or less developed groove or hole at the hinder angle of the mouth, evidently formed by some periodically developed process of the edge of the mantle. The operculum of this genus, like that of *Siliquaria*, after it has arrived at its full size, continues to form new whorls,

which are of the size of the mouth of the shell, so that it at length assumes a cylindrical form and is partly supported by a shelly secretion. In others, as *Megalomastoma*, there is a permanent appendage to the mantle, which produces a groove and ridge in the front of the mouth near the pillar; and in *Pupina*, which has been confounded with the *Buccina*, the groove ends in a narrow-edged marginal notch. The *Calliæ* have a peculiarly polished shell very like the former, but they want the groove. The fossil genus *Strophostoma* is peculiar for the animal, when it is approaching to its adult state, suddenly reversing the position of its body, so that the mouth of the shell is placed on a plane with the surface of the spire, as in the genus *Anostoma* among the *Helices*. The *Pomatias* have an elongated shell with reflexed lips, and a horny oval operculum.

The family of Helicinas (*Helicinidæ*, Case 26) have a half ovate annular operculum, and the edge of their mantle is said to be thickened like that of the snails. The mouth of the shell is half ovate, with a reflexed edge; they use their elongated tapering tentacles to feel their way as they walk. The shell of the *Helicinæ* have a simple mouth. *Alcadia* differs in having a slit in front of the mouth, into which is fitted the tooth-like process of the operculum; and the *Lucidellæ* are peculiar among operculated shells for having three or four teeth on the thickened edge of their mouths.

The second class, or BIVALVE MOLLUSCA, or CONCHIFERA, (Cases 27—37,) have the animals always covered with a two-lobed mantle, each protected by a shelly valve, and they have within the mantle, between it and the compressed body, a pair of laminar gills on each side. The lower part of the body is generally dilated into a keeled or horn-shaped foot, by which they walk along the sand or mud of the shore, or a flat disk, by which they attach themselves to rocks and form holes in their surface. They have no distinct head, the mouth being placed (guarded by two pair of elongate fleshy lips, somewhat like the gills in appearance) at the back of the cavity between the mantle-lobes, near the front of the base of the foot. They depend for nourishment on the food which is brought near this aperture by the currents that are continually circulating within the cavity of the mantle for this purpose and that of supplying water to the gills to aërate the blood, hence they are all aquatic. This current enters on the lower side of the hinder end of the mantle and shell, and makes its exit, carrying with it the fæcal matter, at the dorsal angle of the same extremity, and the various modifications which this end of the mantle assumes, (being sometimes produced into syphons, at others simply united, leaving two holes, or quite free, to offer more or less facility to the entrance and exit of the current,) afford some of the best characteristics hitherto observed to divide these animals into orders. The two valves, which are each formed and enlarged exactly after the plan of the shell of Gasteropodes, are always united together on their dorsal edges by a ligament of greater or less strength, and within this ligament there is placed an elastic cartilage, formed of perpendicular fibres extended from the edge of one valve to the other, and is often so closely united to the inner surface of the ligament that they have generally been confounded together, and regarded as one body; but their use is extremely different, the former being to keep the valves together, and with the assistance of the teeth in their proper situations

with respect to each other, while the use of the cartilage is to separate the lower edges of the valves from one another, without any exertion to the animal, while it is waiting with its mantle leaves open in quest of its prey, or walking about to find a place more agreeable to its habits or where food may be more abundantly procured. That the cartilage is distinct from the ligament, is easily proved by the fact of its being often separated from it and placed in a triangular pit on the hinge-margin of the valves, when the shell is said to have an internal cartilage, as in *Pecten*, *Mactra*, &c. In these the fibres of the cartilage are directly pressed by the surface of the valves, as it is again pressed by the edge of the valves against the inner surface of the ligament in those shells which have the cartilage situated immediately within that body. In some few, as the Piddocks (*Pholas*), there is no cartilage, its place being supplied by muscles, which are attached to the posterior edge of the valves, and are covered by a thin skin instead of a ligament, in which shelly plates are usually imbedded. The ligament and cartilage are increased in size as the animal grows by the addition of new particles to their hinder edge, which are deposited by the fold of the mantle, situated immediately within them, between the edges of the valves, the ligament being always first enlarged so as to form a protection to the cartilage which is afterwards produced below it.

The *Conchifera* are in general free, and walk about by means of their compressed foot, forming for themselves holes in the sand or mud on the sea-coast, in which they rest with their siphons, or the hinder end of the body, near the surface, and their mouths downwards. Others, as the *Petricolæ*, *Lithodomi*, and *Pholades*, form for themselves holes in calcareous rocks or old shells, in which they constantly remain during the whole of their lives. Some few line these holes with a calcareous secretion, as the *Gastrochaenæ* and *Teredines*; *Clavagella* and *Aspergillum* form testaceous tubes, to which the former fixes one of its valves, leaving the other free to move at the will of the animal, while the latter fixes them both, so that the valves appear to form a part of the tube, their apices only being visible externally. Those animals which fix the valves to their tubes, have the ends thereof pierced with holes for the passage of filaments, and they only appear to increase it at its upper or exposed hinder edge; while in those in which the valves are free, the case is extended, at its lower part, by the animals boring into the substance in which it is lodged. Some shells, as the *Arca*, *Nucula*, and *Solenomyæ*, attach themselves to rocks and stones, by a secretion which they emit from the expanded end of the foot: this secretion often hardens, and is calcareous. Other shells are attached by a beard, passing out either from the gape of the shell, as in the *Mytili*, *Pinnæ*, and *Tridacnæ*, or from a groove in the anterior and upper part of the edge of the right valve, as in the *Pectines*, *Aviculæ*, and *Mallei*. The *Anomiæ* are fixed by a muscle passing out of a deep notch in the under valve, which secretes a hard disk at the places of its attachment to the rock: and others, as the *Chamæ*, *Etheriæ*, *Spondyli*, and *Ostrea*, are attached by the outer surface of their shell to rocks, &c. These shells, and those which inhabit tubes, do not become attached until some time after they are excluded from the egg: the nucleus, or shell, of the young animals, which at first are not distorted, as they afterwards be-

come, are often to be seen remaining on the outside of the umbones of the adult shells.

The animals of most of the larger species of these shells are used for food in various parts of the world. Many of them are liable to a disease which causes them to form calcareous pearly secretions, either in the substance of their bodies or on the surface of their shells; these secretions always agree in colour with that of the inner surface of the shell to which the animal belongs. Thus those of the *Pinnæ* are pale brown and transparent; those of the Oyster are white and opaque; and those of the Muscles are either white or purple; while those of the shells which have a pearly lustre, as the *Aviculae*, *Uniones*, and *Anodons*, partake of the same mild brilliancy. As the peculiar lustre of Pearls greatly depends on their more or less globular form, the Chinese have attempted, not very honestly, to make the pearly inside coat of some of the pond-muscles assume that shape, by placing hemispherical pieces of mother-of-pearl between the animal and the shell, which it eventually covers with a pearly coat. In other countries, spurious Pearls have been produced, for an equally laudable object, by placing pointed pieces of wire in a similar situation.

These animals are divided into orders, according to their habits, which are indicated by some having long syphons, to facilitate the admission of the aerated water and food, and others only a posterior slit between the lobes of the mantle, some having a foot for walking from place to place, for attaching themselves to other bodies, and some being quite destitute of this organ.

I. In the more typical orders, the hinder edge of the mantle is furnished within with two (separate or united) syphons, which are provided with a large fan-shaped muscle on each side, for the purpose of retracting them into the shell when the animal fears external danger. The edges of these muscles form, according to their extent, a more or less deep sinuosity in the hinder part of the muscular impression, which passes round the inner margin of the shell. They are also furnished with two distinct adductor muscles, for the purpose of closing the shell to protect the animal from injury; these leave an interior and posterior scar on the oblong elongate valves, which are generally provided with distinct cardinal teeth under the umbones.

In the PHYLLOPODA, so called because the foot is generally lamellar or elongate, the gills are not produced into the canal of the syphon; the mantle-lobes are generally separate below, and the syphons are elongated, and generally separate from each other at the top.

The family of VENERIDÆ have short syphons, which are united for the greater part of their length, and they have an external cartilage, and three diverging teeth in their hinge, and none, or only rudimentary lateral teeth. They live on the sea shore. Some few, as *Venerupis*, form holes in rocks. The *Artemis* have an orbicular shell, with an angular syphonal inflection, and a large lunate inferior foot; the other genera have a lanceolate anterior foot; some of these have a small conical anterior tooth near the cardinal teeth, as *Cytherea* and *Meroe*, which have the hinder lateral tooth striated, and *Grateloupea* and *Trigona* have it torn and divided; the *Chione* and *Circe* have this tooth smooth; the former have a distinct and the latter no syphonal inflection. The *Dosinae*

have a very small anterior tooth and concentrically ridged shells; the rest of the genera have no anterior teeth. The *Mercenariae* have an angular, and the *Anomalocardia* no syphonal impressions. The *Tapes* and *Venerupes* have oblong shells with very compressed teeth, and the *Clementia* are like the latter, but are very thin, and have a cavity in the margin before and behind the teeth.

The family of CYRENIDÆ are very like, and have all the characters of the former, but they are fluviatile, living in rivers and streams, and the shells have distinct lateral teeth, and are covered with a hard olive polished periostraca. The *Cyrenæ* have three teeth in each valve, and the compressed lateral teeth striated across. The *Geloina* differ in the lateral teeth being smooth; and the *Velorita* has a short thick anterior lateral tooth close to the large cardinal ones; they are confined to warm climates. The *Cyclades* are small shells found in colder climates, with two teeth in one valve and three in the other. The *Pisidium*s differ from the latter in being oblong, with the beak nearer the front extremity; the former have two separate and the latter only one syphon. They are viviparous.

The family of Cockles (CARDIADÆ) have very short syphons, not leaving any syphonal inflexions on the shell. Their foot is large and sickle-shaped, and the shell cordate and radiately ribbed, with two large teeth in each valve, placed in a cross, and distinct lateral teeth. The ligament is external. The *Cardiums* are heart-shaped. The *Hemicardiums* are very short and strongly keeled, so as to be several times broader than long; the hinder side is sometimes so much compressed as to be mistaken for the anterior one. The *Conocardia*, which are only known in the fossil state, are like the latter in shape, but the keel is furnished with a large expanded edge, and the cardinal line is extended into a point at each end.

The family of MACTRIDÆ have the cartilage separated from the ligament, and placed in a triangular pit behind the cardinal teeth. Their anterior hinge tooth is bifid, or triangular. In *Scissodesma* the ligament is placed in an external slit just over the cartilage; in *Mactra* it is external in a marginal groove; and in *Spisula* and *Lutraria* it is sub-external, marginal on the upper part of the cartilage; in the former the hinder lateral teeth are double and single, and in the latter single or wanting. In *Mulinia* and *Gnathodon*, the ligament is internal, and placed in the same pit as the cartilage; in the former the lateral teeth are simple like *Mactra*, and in the latter the front lateral tooth is hatchet-shaped, and the shell wedged-shaped.

The MESODESMIDÆ only differ from the *Mactridæ* in the anterior cardinal tooth being single and compressed. The *Mesodesma* are ovate shells with the hinge in the middle; the *Donacillæ* are wedge-shaped shells with the hinge at one end; both have distinct syphonal inflexions. The *Anopa* are triangular and have syphonal inflexions. no

The family of TELLINIDÆ have very long slender syphons, which are separated from each other in their whole length; their shells are consequently marked with a very large syphonal inflection. The cartilage is generally external. The *Psammobia* and *Psammotea* have elongate shells, rather gaping at each end. The *Tellinæ* have a fold on the hinder slope. The *Arcopagiæ* differ from the latter in being rounder and more solid, and the *Strigellæ* have the shell obliquely

striated. The *Amphidesmæ* only differ from the *Tellinæ* in having the cartilage placed in an internal pit, and *Cumingia* only differ from the latter in the hinge-pit being projected into the cavity of the valves. The *Petricolæ* are irregular shells which live in holes in stones, and have large irregular triangular teeth. The genus *Donax* is peculiar for having the hinder side of the shell much shorter than the front, giving it a truncated wedge-shaped form, which has caused most conchologists to mistake the front for the back of these shells. The genera *Hecuba*, *Cuneus*, *Latona* and *Iphiginia*, differ from one another in the disposition of the hinge teeth. The *Capsa* are like *Donaces*, but more swollen, and covered with a thin olive periostraca. The *Galathea* are triangular shells with large hinge teeth, and covered with a hard thick periostraca, like the *Cyrenæ*; when young their teeth are like the *Capsæ*, but as the shell enlarges in size and increases in thickness, the teeth increase in size, and become subdivided into separate lobes; they are only found in the rivers of Africa.

The order of CLADOPODA, on the contrary, have a large club-shaped foot, which is sometimes truncated and expanded at the end. The mantle-lobes are generally united, forming a bag open only in front to allow of the passage of the foot. The syphons are large, exerted, and generally united together nearly to the end, and the gills are produced into the upper or anal syphon. The periostraca is extended so as to cover the exposed part of the mantle and syphons.

The family of PHOLADÆ have the valves united only by a very thin ligament, scarcely thicker than the periostraca, in which are generally imbedded one or more shelly plates. In the *Pholades*, the place of the cartilage is supplied by a muscle situated on a reflection of the inner surface of the shell, over the umbones. They live in holes, which they form in the substance of shells, calcareous rock, wood, and resin. The foot is truncated in front, to enable them to retain their position while they rotate their shell to form the holes, the substance in which they burrow being partially softened beforehand by the juices of the animal. *Pholas* has an elongated shell with three pieces on the back. The *Barnia* has only one piece, and the *Zirfæa* are short shells with very large gapes at each end, and no distinct dorsal pieces. The *Martesia*, when the animal arrives at full size, closes up the gape in the front of the shell with a shelly plate, and the dorsal ligament is covered with a large shield-like convex plate. The *Talona* differ from the latter in being longer, and in the back margin being reflected, and only furnished with two small back pieces. The *Xylotrya* are small globular shells like *Teredines*, but have two small dorsal pieces. The *Teredinæ* are only found in a fossil state, and are very like the *Martesiæ*; the valves are very short, subglobular, with a lengthened tube behind, but they are longer. The *Teredo*, instead of having any plates in the dorsal ligament, continues to bore deeper and deeper into the wood, and lines the holes as he proceeds with a shelly tube for his protection; and they have at the end of their body small calcareous pallets which close the mouth of the tube. In *Teredo* these pallets are simple and battledore-shaped. In *Bankia* they are elongated, and formed of small cones one within the other, looking somewhat like a quill. Lamarck compared these processes to the legs of *Cirripedes*. The *Kuphus* has ovate pallets toothed at the tip; the tubular case of

this genus is club-shaped, contorted, opaque, and closed at the end; they live crowded together in woody fruits, and have been confounded with *Fistulana*.

The family of GASTROCHÆNADÆ have animals very similar to the former; the valves are thin, gaping in front, and united by a narrow ligament with a thin marginal cartilage. They live inclosed or sometimes imbedded in the substance of a shelly tube, which is formed by the animal to protect its elongated and partly naked body from the roughness of the sand, or the rock in the holes of which they reside. The animal is provided with a series of filaments in front, which it emits to ascertain what is in its neighbourhood, and for the protection of which it forms tubes that serve as anchors to keep the tube of the body in its place; and when it requires to enlarge its tubular dwelling, it adds new matter to the outer or hinder extremity of the tube, having previously absorbed any of the old tube that may be in its way. When this is not the case, the expanded mouth of the old tube forms ruffles on the tube beneath the last formed aperture. In *Aspergillum* both the valves are imbedded in the lower part of the tube, so that only their umbones can be seen on the outer side. In *Aspergillum* the lower end of the tube is regularly convex, pierced with a central slit and tubular holes, and surrounded with a regular fringe of tubes, which are sometimes branched at the end, and in *Fægia* the lower end is irregular, with scattered tubes, and destitute of any fringe. In *Clavagella* one valve is imbedded and the other is free, while in *Fistulana* and *Gastrochæna* both the valves are regular and free; in the former the tube is regular and club-shaped, and in the latter it is irregular, distorted, and attached to the bodies in which it is imbedded with only the smaller end free. The *Bryopæ*, which are only known in a fossil state, appear to have lived in sand like the *Aspergillum*, for the tubes are of a regular club-shape, with a fringe of small tubes round the disk. The genus *Furcella* may either belong to this or the former family, for the animal and valves are not known, the tubes are large and thick, formed of prismatic crystals, thinner and enlarged at the base; the cavity of the upper end is divided into two distinct tubes, which are sometimes elongated into separate diverging tubes.

The family of SOLENIDÆ have a very elongate club-shaped foot, and elongate subcylindrical valves gaping at each end; the hinge is formed by two or three compressed teeth in each valve, the hinder of which is bifid, and the cartilages are external, linear, and supported on a large very prominent pad or fulcrum. In *Solen* and *Ensis*, the foot is club-shaped, and the syphons are short and united. In *Pharus*, the foot is long with a dilated end, and the syphons are elongate and separate. In *Solecurtus* the foot is ovate, compressed, very large, and the syphons very long, united together beneath, and distinct at the top, where they often separate into rings when irritated. In *Cultellus* the foot is thick and pointed, and the two syphons are separate nearly to the base. In several the periostraca is hard and produced beyond the margin; in *Glycimeris* it is much produced, very thick and black, and the syphons are united.

Ctenoconcha, which has many characters in common with the Solens, has the teeth like *Nucula*, but it has an external cartilage.

The family of ANATINIDÆ have a broad compressed foot; the

edges of the mantle-lobes are thickened, and the syphons are elongate and more or less united; the shells are oblong, thin, and brittle, covered with a granular or spinulose periostraca; the hinge is obscurely toothed; the cartilages are internal, placed in a pit in each valve, and furnished with a peculiar shelly hinge-piece, which is either placed before it or sometimes so as to cover the whole of its surface. In most of the genera the shell is regular and free. In *Auriscalpium*, *Periploma*, *Cochlodesma* and *Hemicyclostoma*, the cartilages are in a pit on a projecting spoon-shaped process, and the hinge piece is small. In *Thracia* the cartilage is on a callosity of the hinge margin. In the *Lyonsiæ* and *Myadoræ*, the cartilage pit is sunk into the hinge margin of each valve, and covered by a large flat hinge piece; the shell of the former is thin and of the latter thick, with very unequal valves, the left one being flat. *Camostrea* and *Myochama* differ from the rest in the shell being irregular and attached by the outer surface of one of the valves.

The family of *Myadæ* are very like the former, but the cartilage is placed on a spoon-shaped cavity in one of the valves, fitting into a pit in the surface of the other; there is no hinge piece, and the hinge is toothless; the syphons are long and the lips small. In *Myæ* the spoon-shaped projection is oblong; in *Sphænia* it has a process behind, which unites it with the hinder part of the hinge margin. The *Tagonia* have the same kind of process, but the shell is ovate, ventricose, with a large gape on its short hinder slope.

The family of CORBULIDÆ differ from the former in having small tubes and very large lips; in the right valve being the largest; and in being provided with a large tooth in each valve in front of the cartilage pit; there is no syphonal inflection. The *Corbulæ* are thick, nearly triangular shells, with a large hinge tooth in each valve. The *Harlea* are oblong, subquadrate, thin shells, with a sharp keel from the umbo, and conical hinge teeth. The *Tomala* are like the *Corbulæ*, but have a triangular projecting plate with a ridge on each side in the left valve, and two triangular teeth in the other, and *Raletæ* differ from the latter only in having a narrow central pit, its right valve with a strong conical tooth falling into the large pit before the tooth in the left valve. The *Neara* have a thin nearly equivalve shell produced into a beak behind, and with small hinge teeth.

The family of PANDORIDÆ have very unequal valves and pearly shells, with two diverging teeth in each valve, near the cartilage pit. They have two short tubes, like the *Corbulidæ*, but the foot is small, the gills on each side are united into one, and it is the left valve of the shell that is the most concave.

The family of SOLENOMYADÆ are very peculiar for being covered with a very hard cartilaginous periostraca, which is much produced beyond the edge of the shell; they have only one gill on each side, no lips, and the foot truncated and ciliated round the edge of the radiated grooved end, by means of which they very quickly bury themselves in the mud. They have only a single large ciliated syphon; the hinge is toothless, and the cartilage linear, partly internal, with a slight pad on each side.

The family of GALEOMIDÆ have a squarish equal-valved shell, with a straight toothless hinge and a large ovate gape below, the mantle lobes

are united together behind, and pierced with a hole; the foot is compressed, rhombic, rounded at each end, produced in front, and the hinder part of the lower edge is doubled and fringed, like the *Arca*; when distended it is cylindrical, with a flat linear disk.

The family of *SAXICAVIDÆ* have the mantle lobes united together, leaving only a small hole in front for the passage of the tongue-like foot, which is furnished with a tuft of byssus at its base, and the mantle is produced behind into two large united syphons; the shells are equivalve, rugose, wedge-shaped, and with a moderate syphonal inflection and a muscular scar near its lower edge; they live in holes in stones or attached to stones by their byssus. The *Saxicava* have a toothless hinge, and the *Hiatella* have two indistinct teeth in each valve, but the latter have been considered as only the young of the former.

The family of *LASIADÆ* have oblong equivalve shells, with two cardinal teeth in the left valve and one in the right, in front of the submarginal internal cartilage; they have no syphonal inflection, the mantle lobes are separate below, the foot elongate, very exsertile, with a slight groove along the lower edge, sometimes furnished with a byssus; they have a single very short syphon; they are very like *Cyclades*, but are marine, living in cracks of rocks, or between the roots of fuci, and float on the surface of the water and crawl up the edge of a fucus like a Gasteropode; they are viviparous. The *Lasea* are ovate convex, the *Kellia* are suborbicular swollen, and the *Lepton* are orbicular and much compressed, like a fish scale.

II. In the more aberrant orders the mantle is not provided with any distinct syphons, but the lobes are either free behind or united and pierced with one or two holes for the passage of the water.

In the two following orders the animals have oblong elongated shells, like the preceding, and two distinct adductor muscles, leaving more or less distinct scars on the inner surface of the shell, which shews the places the muscles have occupied when the animal was alive.

The *GONIOPODA* have a more or less compressed angular foot; the mantle without any syphons. The lobes are united so variously and so differently in genera that are evidently very nearly allied, that we are led to believe that in this order it must afford a very secondary character. They may, however, until more is known of the animals, be arranged in the following families.

In some the shells are adherent to other bodies by the outer surface of their valves.

In the family *Chamidæ*, the mantle lobes are united, leaving only a small hole for the passage of the small elongate oblong foot. The shells are porcellaneous, and the animals attach themselves to rocks, coral, and shells on the sea-shore. The *Chama* are attached by the outer surface, and the *Arcinella* only by the top of the valve, and are regularly cordate, while the *Chama* are distorted.

The family *Etheriadae* are fluviatile, being attached to stones and shells in the African rivers. Their mantle-lobes are free, with a large quadrate foot, like the *Uniones*, and the shell is pearly and blistered internally, and covered with a green periostraca, which is often eroded. The genus *Mulleria* appears to have been established on a distorted *Etheria*.

The animals of the remainder of the families live free, moving about from place to place, and are mostly marine.

The family *Carditidæ* have the mantle-lobes free, but united behind so as to form one or two syphonal holes. The shells have very oblique cardinal teeth, and the cartilage is external; they have no lateral teeth, and the periostraca is thin. *carditidæ D'Orb. 1046*

The family of *Crassinidæ* only differ from the former in the teeth being triangular and diverging like the *Veneridæ*, and they are covered with a thick brown periostraca; the hinder lateral tooth of the left valve is double. The *Astarti* are cordate, compressed, concentrically grooved shells. The *Cardinæ* are elongated fossil shells, which have been confounded with the *Uniones*. *astartidæ D'Orb. 1046*

The family of *Crassatellidæ* are nearly similar, but they are at once known by the cartilage being placed in an internal triangular pit near the cardinal teeth. *astartidæ p. D'Orb.*

The family of *ISOCARDIADÆ* have the very oblique cardinal teeth and the linear external cartilage of *Cardita*, but the hinder lateral teeth of the right valve are double. *D'Orb. 1046*

The family of *LUCINIDÆ* have an orbicular white shell, with none or only a few very small cardinal teeth, and the mantle lobes are more or less united together beneath, leaving only a hole for the elongate strap-shaped foot. They have a single, conical, contractile anal syphon over the aperture for the entrance of the water; the front adductor muscle is very long and high, and the inner disk of the shell is opaque and rugose. In general the cartilage is marginal under the ligament, but in *Loripes* it is internal in an elongated pit, and *Ungulina* scarcely differ from it. The *Lucina* have an external ligament and distinct cardinal teeth; the *Semele* are like the former, but the valves are unequal, one being nearly flat, and it has no lateral teeth; the *Lenticularia* are solid shells, like the *Lucina*, but with the cartilages partly internal, they have a conical anterior lateral tooth, like *Artemis*, and *Diplodontia* are like *Lucina*, but have no lateral teeth. The *Cyrenella* are subglobose shells covered with a thin olive periostraca, and thin teeth. The *Corbis* are thick, ovate, cancellated shells, with distinct cardinal teeth. The *Cryptodons* are thin shells with a distinct fold on the hinder side, and very small teeth. The *Verticordiæ* are fossil shells, allied to the latter.

see D'Orb. 875
The family of *Unionidæ*, or of Pond Muscles, are, like the *Etheriæ*, only found in fresh water; they are covered with a hard olive periostraca, under which the shell is hard and beautifully pearly. The mantle-lobes are free all round, except at the dorsal edge, the hinder edge forming, when in conjunction, two holes to the passage of the water, food, or rejectamenta, the upper small, simple, the lower one larger, bearded on its edge. The cartilage is always marginal, and the hinge presents several modifications, but is always destitute of any cardinal teeth; in *Anodon* it has no teeth at all; in *Unio*, *Damaris*, &c., it has lateral teeth of different degrees of development and form, so that they sometimes resemble cardinal ones.

The family of *Iridinidæ* are very like the former, but the hinder parts of the mantle are united and produced into two short, unequal, separate syphons. The shell is solid, and the hinder part of the submarginal scar is more or less inflexed. In *Iridina* and *Leila* the hinge edge is

smooth, like *Anodon*, and the latter has a sharp syphonal inflection. The *Pleiodon* has a series of transverse teeth, like *Arca*, but they are irregular; and *Hyria* and *Castalia* have compressed crest-like lateral teeth, as in *Unio*. The two latter genera may be distinguished from *Unio*, by having the smaller anterior scar placed over (and not under, as in *Unio*) the larger scar of the adductor muscle.

The family of MYCETOPODIDÆ are like the latter, but the shell is nearly cylindrical, and widely gaping at each end. The foot is long and subcylindrical, expanding into an oblong end, and the two anterior muscular scars are widely separated, with the smaller one before the larger; the lobes of the mantle are free, and they have no syphons.

The family of TRIGONIADÆ have a thick cordate shell of a pearly laminar texture, with an external cartilage, and the hinge formed of two diverging grooved interlocking lateral teeth. The mantle-lobes are free, with a large foot, having an acute hooked end, somewhat like the cockles, by means of which the animal leaps.

The family of ARCADÆ are all marine, and have the mantle-lobes free like the former; the foot is compressed, rather variable in shape, but always bifid, and furnished with a broad lower edge. The hinge of the valves consists of a number of transverse interlocking teeth, which appear to be formed by the subdivision of two elongate lateral teeth. In general the cartilage is external, arising from diverging angular lines marked upon the facet, formed by the gradual thickening of the dorsal edges, which causes the umbones to be separated from each other as the shell enlarges. The *Arca* have an angular elongated shell with the teeth in a straight line, and a broad short foot, from the end of which the animal secretes a quantity of mucus which hardens into lamellæ, and by means of which it affixes itself to marine bodies. In the true *Arca*, *Litharca*, *Senilia*, *Argina*, and *Lunarca*, the hinge teeth are all equally transverse, the *Arca* are elongate, subquadrate, and covered with a hairy periostraca. The *Litharca* are elongate, truncated behind, and live in holes in stones and rocks; the *Senilia* have very thick shells, covered with a smooth olive periostraca; and *Argina* are ovate, subcordate, convex shells, with a crenated margin, and the front group of teeth small and roundish. The *Lunarca* differ from the former in the front group of teeth being replaced by an elevated ridge. In *Cucullæa*, *Trisis*, and *Barbatia* the teeth on the middle of the line are small, of the ends large and oblique. The *Cucullæa* have the scar of the adductor muscles placed on a ridge. The *Trisis* are twisted. The *Barbatia* are elongated shells, covered with a hairy periostraca, and the *Scaphura* are thin shells covered with a thin olive periostraca, living in fresh water. The *Pectunculi* have an orbicular shell, a lunate foot, and the teeth in an arched line, their margin is crenated. The *Lynnopsis* have a triangular pit placed on the facet of the valves. The *Nuculæ* are free, like the *Pectunculi*, but the teeth of the hinge form an angular line with the cartilages in a triangular pit at its angle; they are pearly within. The *Nuculæ* are ovate wedge-shaped, and the *Leda* elongate and beaked.

The POGONOPODA attach themselves to rocks and other bodies by a bundle of fibres which arise from the front of the base of their foot. These fibres are separately formed in a groove in the front of that member, and after each has become of a certain consistence, the animal,

by extending its foot, attaches the dilated end of the fibre to some marine body, and then allows it to be withdrawn from the groove. New fibres are formed as they are required either by the breaking of the old ones or by the enlarged size and greater strength of the animal.

The family of TRIDACNIDÆ have the solid opaque white shell, and the broad and subquadrate foot of the preceding families; but they are very peculiar for having the mantle-lobes united, so as to leave three apertures, and for the animal being so placed in the shell that the hinder adductor muscle is in the middle of the lower margin, between the two syphons, and the hole through which the foot and byssus are passed out high up and near the umbo, where the gap is between the front edges of the valves; the hinge is furnished with very oblique interlocking teeth. They are the giants among the *Conchifera*, and live attached by their byssus to rocks, shells, and corals. They also have the faculty of forming holes in the surface of the shell or coral to which they may happen to be fixed. The *Tridacna* is an ovate shell with a gape in the anterior slope for the passage of the byssus. The *Hippopus*, or horse-hoof shell is flattened, and closed in front.

The rest of the animals of the families of this order have a tongue-shaped foot; their shells are generally of a prismatic crystalline texture, and the hinder adductor muscles are much larger than the front.

In some of these the mantle-lobes are more or less united.

The family of MYTILIDÆ have the mantle-lobes free, with only a single distinct slit for the exit of the water and fæces; the shell is ovate triangular, with a marginal cartilage and sometimes one or two indistinct teeth under the umbo. In *Mytilus* the umbo is acute at the anterior margin of the shell, and in *Modiolus* it is placed rather behind the extremity.

The family of CRENELLIDÆ chiefly differ from the former in the mantle-lobes being united together so as to leave only two posterior holes for the entrance and exit of the water, and a slit for the foot and beard; the hinge margin is denticulated on each end, and the umbo is nearly central. The *Crenellæ* are sub-orbicular, and the *Modiolaria* ovate elongated shells.

The family of DREISSENIDÆ have been confounded with the *Mytilidæ* like the last family, with which they agree in having the mantle-lobes united; but they differ from them in having a large, elongated, conical inferior syphon; the umbo is acute, and placed at the front apex of the shell, as in *Mytilus*, and it has a septum forming a cavity beneath it. They are fluviatile. The *Dreissenæ* are triangular shells lengthened behind, like the *Mytili*; the *Congerina*, on the contrary, are short, subquadrate, thick shells, truncated in front; the latter are only known as fossils.

In the remainder the mantle-lobes are free all round without any particular apertures, and the hinder end is bearded. They differ from the *Micropoda* chiefly in having two more or less unequal adductor muscles.

The family of PINNIDÆ have a large triangular shell of a prismatic crystalline texture, united by a linear marginal cartilage, the apical part of the valves is divided in half by a central longitudinal suture filled with a cartilaginous substance. The animal has two double lips besides the usual pair of appendages, and by the side of the vent, which is above the large hinder muscle, there is a conical contractile appendage, the

use of which is unknown. They live sunk in the sand, or between cracks in rocks, with their gaping truncated end just above the surface. The beards of these animals are sometimes spun into gloves, &c., like silk. The *Pinna* have an elongated shell with a longitudinal crack filled with a cartilage in the middle of each valve, and *Atrina* are shorter shells without any such crack.

The family of AVICULIDÆ differ from the former in having a notch in the front margin of the right valves for the passage of the byssus or beard, and in the cartilage being placed in one or more pits in the surface of the dorsal edge; the animal is also destitute of the hinder appendage. They live, as it were, anchored to rocks, corals, and other marine bodies by their byssus; the anterior adductor muscle is small and rudimentary, and the hinder one larger, and nearly in the centre of the cavity, leaving a large scar near the centre of the disk of the shell. In some the cartilage is placed in a single cartilage pit under the umbo. Among these the Hammer Oyster (*Malleus*) is peculiar for the dorsal edge being elongated, and the disk, which is very narrow, being much produced, so that the shell assumes the form of a hammer. The *Vulsellæ* that live sunk in the surface of sponges are very variable in shape, but the cartilage pit is large and always produced into the cavity of the shell. *Reniella* is only a distorted specimen of the common species of *Vulsella*. The *Aviculæ* are ovate, convex shells, with the hinder part of the hinge margin produced so as to resemble the forked tail of a bird; hence they have been called Swallow-tailed Muscles. The mother-of-pearl shell (*Margarita*) only differs from these in the disk of the shell being larger and rounder, and the dorsal edges less produced. In the other genera the cartilages are placed in several distinct pits in the hinge margins, as in *Crenatula*, where the shell resembles the *Aviculæ* in shape, and having a thin margin, the pits project into the cavity, or in *Perna*, which are like the *Mallei* or Hammer Oysters in form, but having a very thick hinge margin, forming an area on the top of each valve, the cartilage pit forms distinct grooves across it. Besides these there are numerous fossil genera, as *Inoceramus*, *Pachymya*, *Gervillia*, which must be referred to this family; the latter is peculiar for having teeth like *Avicula*, but more developed, as well as the many cartilage pits of *Crenatula*. The *Dalacia* are like the *Crenatula*, but have the umbo some distance from the front of the hinge margin instead of quite at the angle.

The MICROPODA have a large single adductor muscle, placed nearly in the centre of the sub-orbicular shell. The mantle-lobes are always entirely free, except near the dorsal edge, and without any peculiar tubes; they generally have only the rudiment of a foot on the lower side of the abdomen, and sometimes no apparent one. In some the shells are solid, thick, and the animal has a more or less developed foot; the cartilage is placed in a small triangular internal pit.

The family of PECTINIDÆ have a moderate sized hatchet-shaped foot, which enables the animal to move about, and they have a tuft of byssus at its base, which passes out at a notch under the front margin of the right valve, by which they affix themselves to rocks and other marine bodies, like the Muscles. The dorsal edges of the valves are produced at each side into ears. The *Pectens* have small bright eyes like spots on the edge of the mantle, which are not found in the *Limæ*. The

Pectens have nearly equal valves and unequal ears. The *Janira* have one valve very concave and the other flat. The *Neitheæ* are like the *Pectens*, but there are several transverse teeth on the hinge margin. The *Amusia* have both the valves nearly flat, smooth externally, and with ribs within. The *Plagiostoma* only differ from the *Lima* in having no or very little gape in the front margin, and the *Limaculæ* are nearly equilateral. The *Pedims* are thin flattened shells with a large triangular area, marked with the long cartilage groove; they live in corals, and are often distorted.

The family of *Spondylidæ* have a small foot without any byssus, and the shells are attached to rocks and stones by the outer surface of one of the valves. In *Spondylus* and *Plicatula*, the hinge margin is provided with two large interlocking teeth in each valve, and in *Hinnites* the hinge is toothless like the *Pectens*, with which it has generally been confounded. In *Spondylus* the teeth are thick and roundish; in *Plicatula* long, compressed, and transversely grooved on the sides. The fossil genera of *Podopsis* and *Dianchora* are peculiar for having the internal opaque coat of the valves usually destroyed during the process of fossilization; from the want of this coat, they have frequently been mistaken for *Terebratulæ*.

The animals of the remaining families have lamellar shells and no foot.

The family of Oysters (OSTREIDÆ) have a thick laminated shell, and the animal has short lips, separate from the gills; they live attached, like the *Spondyli*, by the outer surface of their shells; the cartilage is placed in a large triangular internal pit. The *Ostrææ* are irregular laminar shells, the lower valve being concave and the other flat. The *Gryphææ* chiefly differ from them in the apex of the lower valve being produced incurved, so that the upper valve looks like an operculum to the cavity of the other. They are only attached by the tip of the lower valve. *Exogyra*, like the *Gryphææ*, have the tip of the lower valve incurved, but being attached by the greater part of the outer surface of this valve they greatly resemble *Chama* in appearance. The *Plectronia* have nearly equal valves, which are strongly plaited on the margin; they often attach themselves to branches of trees growing in the sea, and assume the form of the bodies to which they happen to be attached.

The family of PLACUNIDÆ are very peculiar for having a very compressed body and thin nearly transparent shells; the cartilages are placed on the edge of two diverging ridges on one of the valves, which fit into two grooves in the other. These shells are sometimes used as glass to glaze windows.

The family of ANOMIADÆ have the thin pellucid shell of the former, but the body is usually rather more convex, and they are attached to marine bodies by a peculiar muscle, which passes out through a notch in front of one of the valves; this muscle after a time secretes on the surface to which it is affixed a stony substance, formed of longitudinal shelly plates, probably deposited between the fibres of the muscles, which has been called a stopper, and by some considered as a third valve. In *Anomia* this stopper is free. In *Placunanomia* it is fixed in the notch, which is obliquely prolonged as the shell enlarges. These shells become gradually moulded to the surface they rest on. Thus, if

the shell is found on a *Pecten* it is ribbed, and if on the spine of an *Echinus*, or the stem of a sea-weed, it is compressed and subcylindrical.

The three remaining Classes of Mollusca have no foot or only a rudimentary one.

The third class of BRACHIOPODOUS MOLLUSCA (BRACHIOPODA, Case 38) are inclosed by two regular shelly valves, one placed on the back and the other on the lower surface of the body, which are quite free from each other, or only united by interlocking teeth on the hinge margin. They have no distinct head, but the mouth is placed on the hinder part of the cavity between the leaves of the mantle, and is furnished with two long spirally twisted arms, by which they reach their food; the organs of respiration are placed on the edge of the mantle. All these shells are attached to marine bodies.

Some are attached by means of a tendinous cord, which passes out between or in a groove in one of the valves.

The family of LINGULIDÆ are attached by a tendinous tube, resembling the stem of the Barnacles, which projects between the apex of the gaping valves.

The family of TEREBRATULIDÆ are regular, and somewhat like a Grecian lamp in form, and have therefore been called Lamp-shells. The valves are articulated together, and the animals are attached by means of a tendinous band, which passes out of the hole in the apex of the upper valve, as in the *Terebratulæ* and *Spirifer*.

The family of DISCINIDÆ (Case 38), on the other hand, have the tendon passing out of a linear slit near the middle of the under valve, the shell is suborbicular and the upper valve conical like a *Patella*, but more symmetrical.

Others are immediately attached by the outer surface of their under shell.

The family of CRANIADÆ are attached by their flat lower valve, which has an oblique facet on the upper side; the upper valve is suborbicular, conical, with a subcentral apex like the *Discinæ*; the muscular scars of the lower valves bear some resemblance to a face, hence the name of *Crania*.

The family of THECIDEIDÆ are fossil shells, very like the last, but only attached by the apex of the lower valves, which is produced and somewhat lamp-like, and the cavity is furnished with a complicated apparatus to support the internal organs, as in *Terebratulidæ*.

The family of PRODUCTIDÆ are fossils, probably allied to the latter; one valve is concave and the other flat, or concave and pressed into the cavity of the other; the hinge line is straight and the shell subsymmetrical.

The fourth class of PTEROPODOUS MOLLUSCA (PTEROPODA, Case 38) live floating in the sea; they are furnished with one or rarely two wing-like fins placed on each side of the mouth; some few have a small flat space, the rudiment of the foot, between the base of the fins. The body is soft and transparent, shewing the viscera through the skin, and most of them are contained in a very thin, transparent, more or less conical, glass-like shell; they appear on the surface of the ocean when it is calm, especially in the evening, and from the brilliancy of their colours may be compared to the evening-flying *Lepidoptera*. They are most abundant near midnight, and gradually disappear

towards the break of day. They are all hermaphrodite, with vent and the orifices of generation on the right side of the base of the fins. Some have distinct eyes.

The THECOSOMATA, or Shell-bearing *Pteropodes*, are so called because their body is inclosed in a thin shell; their head is indistinct, the mouth being placed in the centre of the two large wings, which are united into a funnel-shaped expansion; their gills are internal. They use their fins as oars to their boat-like shell, when they swim on the calm ocean.

The family of CLEODORIDÆ have an elongate or subglobose conical glassy shell, and the fins are simple without any intermediate foot-like lobe. The body is divided into two distinct parts, the head with the two fins, and the large and swollen body. The gills are superior and internal. In some there are lateral slits in the sides of the shell, which are interrupted in front in the globular shells of the *Hyalæ*, and continued to the mouth in the elongate *Diacriæ*; in others which have an elongate tapering shell there are no lateral slits, as *Cleodora*, &c. The *Cleodoræ* have a triangular shell. The *Balantiæ* differ in the sides of the triangle being ventricose and grooved across. The *Pleuopi* have a cylindrical tapering shell, and *Vaginella* have a ventricose rather depressed shell with a transverse linear mouth. The *Brochi* are cylindrical, curved, transversely ringed shells. *Psyche* and *Euribia* have a slipper shaped or nearly globular shell.

The family of LIMACINIDÆ is probably allied to the former, but it has a spiral discoidal shell.

The family of CUVIERIDÆ have a glassy conical cylindrical shell, which becomes truncated in its adult state. The animals have a small foot-like fin between the bases of the two side fins.

The family of CYMBULIADÆ have the intermediate fin like the former, but the shell is only of a firm gelatinous substance. They have two eyes and two tentacles. The shells are variable in shape, but generally somewhat resemble a slipper.

The GYMNASOMATA, or naked-bodied *Pteropodes*, are destitute of any shell; their head is distinct, and they have two or four distinct fins on the neck, and a central foot-like appendage between their bases. Their gills are external.

The family of PNEUMODERMIDÆ have a fusiform body, and the head furnished with two contractile arms, armed with peduncled suckers; they have two wings, and the gills are posterior; in *Pneumodermon* they are in the form of four leaves; in *Spongobranchia* they are like a prominent spongy ring; and in *Trichocylus* in the form of three hair-like rings.

The family of CYMODOCEIDÆ have two wings on each side, placed in the space that separates the body into two parts.

The family of CLIONIDÆ have only two wings, which are said to be covered with a vascular net-work, and serve the purpose of gills; their head is formed of two rounded lobes, with small conical tentacles and two fleshy lips; their body is oblong depressed; they and the *Limacina* are the chief food of the whales, though they are very small.

The fifth class of HEADWALKING MOLLUSCA, or CEPHALOPODA (Case 38), have a large head armed with strong jaws, like a parrot's beak, furnished with two large eyes, and crowned with fleshy tentacles.

The head is separated from the oblong body by a distinct neck, which has an excretory tube in the front of its lower part. Their gills are inclosed in the bag-like body. They are all marine, changing the colour of their skin with great rapidity; they live on marine animals, are voracious and cruel, and some are themselves esteemed as food. They are divided into two orders.

The SEPIOPHORA have a naked oblong or conical body, often furnished with two longitudinal fins, and they have eight or ten fleshy conical tentacles on the head, furnished with sucking disks. Their eyes are sessile, and they have only two gills. They swim tail foremost, or walk and run on their heads with the end of their body on high.

The family of Sea-spiders (OCTOPODIDÆ) have a purse-like body, without any fins, only eight sessile arms, and no shell. The *Ocythoæ*, which have the ends of the two dorsal arms webbed, take possession of the Argonaut's shell, when they are about to lay their eggs. The *Philonæxi*, which have no eyelids and free arms, live on the ocean, while the *Octopodes* and *Eledonæ*, which live on the coast, have distinct eyelids.

The family of Cuttle-fish (SEPIADÆ) have an elongate body with a fin on each side; they have, besides the eight arms of the former family, two longer arms, cylindrical at the base and enlarged and furnished with suckers at the end, which are not developed until some time after they are hatched. The greater part of the genera have a cartilaginous, and a few, as *Sepia*, a calcareous internal dorsal plate. The fin is generally placed on the hinder part of the body, being rounded in *Sepiola* and *Rossia*; angular, forming together a lozenge-shape, in *Omastrephis*, and half ovate in *Loligo*; and in *Sepioteuthis* and *Sepia* they occupy the greater part of the length of the side. The disks or suckers on the arms are supported by a circular horny ring, which is usually toothed on the outer edge, in *Onychoteuthis* the upper edge of those on the long arms, and in *Enoploteuthis* of all the arms, are produced into a sharp claw-like hook, making a dangerous weapon.

The fossils called *Beloptera* are similar to the conical process found on the top of the sepia bone; but instead of being horny, as in that genus, they are distinctly shelly, and have a deeper cavity.

The family of Belemnites (BELEMNITIDÆ) are evidently very nearly allied to the Cuttle-fish, and have a similar internal dorsal bone; the conical substance so commonly found fossil being only a greater developement of the apical process, which is found on the end of the bone of the common cuttle-fish; the *Belemnites*, however, differ from the cuttle-fish in the cavity of the shell, which is produced into this conical process, being furnished with cross septa having a distinct syphon, like the *Nautilidæ*, and in this greatly developed apical process being strengthened as the animal enlarges in size, by the addition of coats of shelly matter being deposited on its outer side, which is evidently secreted by the inner surface of the cavity of the mantles in which it is inclosed. The fact of their being so covered is proved by their being united together again by an external covering when they have been accidentally broken during the growth of the animal, as can be seen by a longitudinal section of any of the distorted or odd shaped specimens, and the matter deposited on the outer surface assumes the prismatic crystalline texture, as is the case with the similar secretions placed in

the cavity of the *Magilus* and some other univalves, thus explaining what has hitherto been an anomaly in the structure of the apical processes, called thunderbolts, so common in collections. The genera of this family differ in the development of the external coats of the apical process, and the comparative size of the chambered cavity compared with the size of it, and also in the position of the syphon in the chamber part, as compared with the position of the shell in the animal. In *Belemnotheutis* the apical process is broad and short, only covered with a few thin coats. In other genera it is elongate and covered with numerous layers, and the layers as they are deposited assume a crystalline texture, so that when the apex is broken across it exhibits a number of crystals diverging from the centre to the circumference, crossing the lines of growth. In *Belemnitella* the front of the sheath of the apex is slit; they are only found in the chalk. In the other genera the sheath of the apex or alveolus is entire or only marked with a groove in front. In some of them, as *Gastrosiphone*, the syphon is in the front, and in another, the *Notosiphone*, in the dorsal part of the septa of the alveolus. The alveolus is sometimes obliterated.

From the imperfect specimens of the animals of the genus *Spirula* which have been seen, and from the very small size of the terminal chamber, the tenuity of the structure, and the colour of the shell, there is every reason to believe that it will form a family of this order; and if this should be the case, it is very probable, as the shells have the same texture, an equally small terminal chamber, and a very contracted mouth, that the fossil *Ammonites*, *Scaphites*, and other allied genera, will also be referrible to this order, or to a new one characterized by the development of the shell, and regular syphoned septa. The shells of the family AMMONITIDÆ are to be distinguished from SPIRULIDÆ by the edge of the chamber being sinuated and the syphon placed near the dorsal surface. The *Ammonites* have a regularly spiral and discoidal shell. The *Crioceras* differs from them in the whorls not being close together, but quite separate from one another. The *Toxoceras* are simply curved like an Ibex's horn. The *Ancylloceras* are like *Crioceras* with the shell near the mouth produced into a straight line, and then bent back again towards the tip. The *Scaphites* differ from the latter only in the whorls of the spiral part being close together like the *Ammonites*. The *Hamites*, on the other hand, have the apical part of the shell bent as in the upper part of *Ancylloceras*, instead of being spiral, and the *Baculites* in the shell being quite straight. The *Turritites* are spiral, and more or less turreted shells, the whorls close together, and the *Helicoceras* differ from them in the whorls being separated and few in number, so that the shell resembles a spiral sheep's horn. These shells vary much in their external form as they increase in size, some losing as they grow many of the spines and processes which ornament them in their younger states. The *Planites* are peculiar for having a large ear-shaped lobe on each side of the mouth, which is said to disappear in the older specimens.

The NAUTILOPHORA have an oblong body inclosed in the cavity of the last whorl of a chambered shell, which has a tubular syphon passing through each of the chambers; their eyes are slightly pedicelled, and they have eight arms, with numerous divisions, furnished with short tubular retractile tentacles and four gills.

Specimens of Spirula. Cuba. 1841

The family of NAUTILIDÆ have two series of very numerous tentacles, and a large fleshy appendage on the head, serving the animal as a foot for locomotion; the shell is exterior, with simple concave septa between the chambers, and the syphon in the centre or near the inner edge. The only genus of this family which is now known in the recent state, is the *Nautilus*, which has a regular involuted shell with the whorls close together. The fossil genera are numerous, and exhibit many modifications of form: involutes like the *Nautili*, crook-shaped like *Lituites*, or quite straight as the *Orthocera*. The *Cyrtoceras* is involute with whorls separate from each other, like *Crioceras*.

The family of GONIATIDÆ are fossil shells, which only differ from the former in the division or septa between the chambers being flexuous or angular. The *Goniatites* are subglobular involute shells, like the *Nautili*, but more swollen, and the *Ceratites* are simply curved like a horn.

The following List exhibits the series of genera of *Mollusca* at one view, and the numbers indicate the Table Cases in this Gallery in which the genera in the collection are placed.

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|----------------------------|----------------------------|----------------------------|-------------------------------|
| Sub Kingdom. | e. Struthiolaria, 8. | Fam. 5. <i>Cypræadæ</i> . | Haliotis, 18. |
| MOLLUSCA. | Aporrhais, 8. | Cypræa, 15. | Padollus, 18. |
| Class I. | Fam. 3. <i>Buccinidæ</i> . | Cyprovula, 15. | Deridobranchus, 18. |
| GASTEROPODA. | a. Cassis, 8. | Luponia, 15. | Scissurella, 18. |
| Section I. | Cassidea, 9. | Trivia, 16. | Pleurotomaria, 18. |
| CTENOBRAN- | Cassidaria, 9. | Erato, 16. | Ralia. |
| CHIATA. | Cythara, 9. | Ovula, 16. | Murchisonia. |
| Order I. ZOOPHAGA. | Dolium, 9. | Calpurnus, 16. | |
| Fam. 1. <i>Strombidæ</i> . | b. Harpa, 9. | Radius, 16. | Fam. 5. <i>Fissurellidæ</i> . |
| Strombus, 1. | Purpura, 10. | Coriocella, 16. | Parmophorus, 18. |
| Terebellum, 1. | Monoceros, 10. | Order II. PHYTO- | Emarginula, 18. |
| Seraphys, 2. | Planaxis, 10. | PHAGA. | Diodora, 18. |
| Pteroceras, 2. | Quoyia, 10. | 1. <i>Podophthalma</i> . | Fissurella, 18. |
| Rostellaria, 2. | Concholepas, 10. | Fam. 1. <i>Turbinidæ</i> . | Macrochisma, 18. |
| Fam. 2. <i>Muricidæ</i> . | Ricinula, 10. | Turbo, 16. | Pupillia, 18. |
| a. Ranella, 2. | Magilus, 10. | Batillus, 16. | Lucapina, 18. |
| Triton, 2. | Leptocochnus, 10. | Imperator, 16. | Fissurellidia, 18. |
| Persona, 3. | c. Buccinum, 10. | Trochiscus, 16. | Fam. 6. <i>Dentaliadæ</i> . |
| Apollon, 3. | Terebra, 10. | Phasianella, 16. | Dentalium, 18. |
| Enzina, 3. | Bullia, 10. | Thicolia, 16. | Entalis, 18. |
| Pollia, 3. | Nassa, 11. | Fam. 2. <i>Trochidæ</i> . | Fam. 7. <i>Lottiadæ</i> . |
| b. Murex, 3. | Demoulia, 11. | Pyramis, 17. | Lottia, 18. |
| Brontes, 3. | Ringicula, 11. | Cardinalia, 17. | Fam. 8. <i>Neritidæ</i> . |
| Trophon, 3. | Litiopa, 11. | Trochus, 17. | Nerita, 18. |
| Vitularia, 3. | Phos, 11. | Polydonta, 17. | Pileolus, 18. |
| Chicoreus, 3, 4. | Cyllene, 11. | Clangulus, 17. | Culana, 18. |
| Typhis, 4. | d. Oliva, 11. | Phorcus, 17. | Neritina, 18. |
| c. Pleurotoma, 4. | Lamprodoma, 11. | Ziziphinus, 17. | Clithon, 18. |
| Perronia, 4. | Agaronia, 11. | Cantharidus, 17. | Dostia, 18. |
| Melatoma, 4. | Olivina, 11. | Thalotia, 17. | Velates, 18. |
| Clavatula, 4. | Scaphula, 11. | Monodonta, 17. | Navicella, 18. |
| Drillia, 4. | Olivella, 11. | Gibbius, 17. | Fam. 9. <i>Ampulla-</i> |
| Conus, 5, 6. | Ancilla, 11. | Gibbula, 17. | riadæ. |
| Cylinder, 5. | Eburna, 11. | Rotella, 17. | Ampullaria, 19. |
| Hermes, 6. | Fam. 4. <i>Volutidæ</i> . | Livona, 17. | Marisca, 19. |
| Fusus, 6, 7. | Cymbium, 12. | Talopia, 17. | Lanistes, 19. |
| Pyrula, 7. | Volutella, 12. | Camitia, 17. | Asolene, 19. |
| Pseudoliva, 7. | Voluta, 12, 13, 14. | Delphinula, 17. | Ampulloidæ, 18. |
| Tritonium, 7. | Mitra, 14. | Liotia, 17. | Paludomus, 18. |
| d. Lathirus, 7. | Vulpecula, 14. | Fam. 3. <i>Stomatel-</i> | Fam. 10. <i>Ianthinidæ</i> . |
| Polygona, 7. | Turris, 14. | lidæ. | Ianthina, 19. |
| Turbinellus, 8. | Volvaria, 14. | Stomatella, 18. | Fam. 11. <i>Atlantidæ</i> . |
| Cynodonta, 8. | Imbricaria, 14. | Gena, 18. | Atlanta, 12. |
| Fasciolaria, 8. | Marginella, 14. | Fam. 4. <i>Haliotidæ</i> . | Helicophora, |
| Cancellaria, 8. | Hyalina, 14. | Stomatia, 18. | |
| | Persicula, 14. | | |

2. *Eriophthalma*. ? Cornu, 20.
Fam. 1. *Naticidæ*. Skenea.
- Natica, 19.
Neverita, 19.
Nacca, 19.
Cepatia, 19.
Polinices, 19.
Mammilla, 19.
Cernina, 19.
Globulus, 19.
Naticina, 19.
Cryptostoma, 19.
? Stylina, 19.
? Radula, 19.
- Fam. 2. *Littorinidæ*.
Littorina, 20.
Hydrobia, 20.
Amnicola, 20.
Assiminea, 20.
Lithoglyphus, 20.
Risella, 20.
Nematura, 20.
Paludestrina, 20.
Lacuna, 20.
x Medoria, 20.
Niomia, 20.
Merria, 20.
Fossar, 20.
Pagodus, 20.
Modulus, 20.
? Solarium, 20.
Torinia, 20.
Bifrontia, 20.
x x x Turritella, 20.
Haustator, 20.
Zaria, 20.
Mesalia, 20.
Eglisia, 20.
Eulima, 20.
Nisso, 20.
Bacalia, 20.
Rissoa, 20.
Nectia, 20.
Turbonella, 20.
Rissoina, 20.
Chemnitzia, 20.
Tania, 20.
Vibex, 20.
Melania, 20.
Thaira, 20.
Pachystoma, 20.
Lampania, 20.
Potamia, 20.
Proto, 20.
Pyrena, 20.
Anculosa, 20.
Io, 20.
Melanopsis, 20.
Potamides, 20.
Tympanotomus, 20.
Telescopium, 20.
Pyrasus, 20.
Vertagus, 20.
Cerithium, 20.
? Ceriphasia, 20.
Tristoma.
Aciona, 20.
Scalaria, 20.
Clathrus, 20.
Cyclotrema, 20.
- Fam. 3. *Truncatellidæ*.
Truncatella, 21.
- Fam. 4. *Velutinidæ*.
Velutina, 21.
- Fam. 5. *Paludinidæ*.
Paludina, 21.
Meladomus, 21.
Bithinia, 21.
- Fam. 6. *Pyramidelidæ*.
Pyramidella, 21.
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? Nerinea, 21.
- Fam. 7. *Tornatellidæ*.
Tornatella, 21.
Solidula, 21.
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- Fam. 8. *Valvatidæ*.
Valvata, 21.
- Fam. 9. *Vermetidæ*.
a. Vermetus, 21.
Spirogyphus, 21.
Bivonia.
Vermilia.
Hatina.
Lementina.
b. Siliquaria, 21.
- Fam. 10. *Vanico-roidæ*.
Vanicoro.
- Fam. 11. *Capulidæ*.
a. Capuius, 21.
Brocchia, 21.
Amathina.
b. Hipponyx, 21.
Sabia, 21.
c. ? Pedicularia.
- Fam. 12. *Crepidulidæ*.
a. Crepidula, 21.
Trochita, 21.
Crucibulum, 21.
Disptoea.
Calyptrea, 21.
b. Cremoria, 21.
- Fam. 13. *Phoridæ*.
Phorus, 21.
Onustus, 21.
- Section II.
HETEROBRAN-
CHIATA.
- Order III: PLEURO-
BRANCHIATA.
- Fam. 1. *Bullidæ*.
Bulla, 21.
Bullæ, 21.
- Acera, 21.
Doridium, 21.
Gasteropteron, 21.
- Fam. 2. *Aplysiadæ*.
Aplysia, 21.
Dolabella, 21.
Notarchus, 21.
- Fam. 3. *Pterotracheidæ*.
Pterotrachea.
Firola.
Carinaria, 21.
Argonauta, 22.
Bellerophon, 22.
- Fam. 4. *Umbrellidæ*.
Umbrella, 21.
Tylodina, 21.
- Fam. 5. *Pleurobranchidæ*.
Pleurobranchus, 21.
Berthella, 21.
Pleurobranchæa, 21.
Posteriobranchus.
- Ord. IV. GYMNO-
BRANCHIATA.
- Fam. 1. *Doridæ*.
Doris.
Hexabranchus.
Asteronotus.
Dendrois.
Glossodoris.
Actinodoris.
Pterodoris.
Actinocyclus.
Onchidoris.
Brachychlams.
Polycera.
Villiersia.
Plocamophorus.
Cladophora.
Triopa.
Idalia.
Dimorpha.
Thecathera.
- Fam. 2. *Tritoniadæ*.
a. Glaucus.
Laniogerus.
Eolida.
Eolidia.
Styliger.
Phyllodesmium.
Flabellina.
Bursiris.
Cavolinia.
Callopea.
Liopa.
b. Tethya.
Malybe.
Melibæa.
Scyllæa.
Tritonia.
Dota.
Eubranchus.
Montagua.
Duvaucelia?
Tergipes.
- Fam. 3. *Placobran-
chidæ*.
Placobranchus.
Acteon.
- Fam. 4. *Phyllidiadæ*.
Phyllidia.
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- Fam. 5. *Patellidæ*.
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- Fam. 6. *Chitonidæ*.
a. Chiton, 22.
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22.
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- Order V. PNEUMO-
NOBRANCHIATA.
- Fam. 1. *Arionidæ*.
a. Arion, 23.
Phosphorax.
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c. Nanina, 23.
Stenopus, 23.
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- Fam. 2. *Helicidæ*.
a. Limacellus.
Scutelligera.
Mehimatium.
b. Limax, 23.
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Epistylum, 24.
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Proserpina, 24.
Delomphalus, 24.
Hyalina, 24.
g. Bulimus, 24.
Megaspira, 24.

- Pupa, 25.
 Abida, 26.
 Clausilia, 25.
 Balea, 25.
 Siphonostoma, 25.
 Bulimulus, 25.
 Succinea, 25.
 h. Achatina, 26.
 Macrospira, 26.
 Polyphemus, 26.
 Achatinella, 26.
- Fam. 3. *Veronicellidæ*.
 Veronicella.
- Fam. 4. *Onchidiadæ*.
 Onchidium.
 Onchis.
 Peronia.
- Fam. 5. *Auriculidæ*.
 Auricula, 26.
 Melampus, 26.
 Sidula, 26.
 Tralia, 26.
 Detracia, 26.
 Pedipes, 26.
 Marinula, 26.
 Ovatella, 26.
 Leuconia, 26.
 Scarabus, 26.
 Chilina (Ida), 26.
 Carychium, 26.
 Acme, 26.
- Fam. 6. *Limnæadæ*.
 Limnæa, 26.
 Amphipeplea, 26.
 Physa, 26.
 Diastrophia, 26.
 Aplexus, 26.
 Planorbis, 26.
 Segmentina, 26.
 Discus.
 Ancyclus, 26.
 Velletia, 26.
- Fam. 7. *Amphibolidæ*.
 Amphibola, 26.
- Fam. 8. *Siphonariadæ*.
 Siphonaria, 26.
- Fam. 9. *Gadiniadæ*.
 Gadinia, 26.
 Sornetus, 26.
- Fam. 10. *Cyclostomidæ*.
 a. Cyclostoma, 26.
 Licina, 26.
 Poteria, 26.
 Leonia, 26.
 b. Annularia, 26.
 Bolania, 26.
 Cyclostus, 26.
 Pterocyclos, 26.
 Strophostoma, 26.
 c. Realia, 26.
 Megalomastoma.
- d. Callia, 26.
 e. Pupina, 26.
 Registoma.
 f. Pomatias, 26.
- Fam. 11. *Helicinidæ*.
 Helicina, 26.
 Lucidella, 26.
 Alcadia, 26.
- Class II.
 CONCHIFERA.
- Order I. PHYLLOPODA.
- Fam. 1. *Veneridæ*.
 a. Artemis.
 b. Cytherea.
 Meroe.
 Grateloupia.
 Trigona.
 Chione.
 Circe.
 Dosina.
 Mercenaria.
 Anomalocardia.
 Cyprina.
 Venus.
 Tapes.
 Venerupis.
 Clementia.
- Fam. 2. *Cyrenidæ*.
 a. Cyrena.
 Geloïna.
 Velorita.
 c. Pisidium.
- Fam. 3. *Cardiadæ*.
 Cardium.
 Hemicardium.
 Conocardium.
 ? Lichas.
- Fam. 4. *Mactridæ*.
 Mactra.
 Schizodesma.
 Spisula.
 Cypricia.
 Lutraria.
 Cryptodon.
- Mulinia.
 Gnathodon.
 Anatinella.
- Fam. 5. *Mesodesmidæ*.
 Mesodesma.
 Donacilla.
 Anapa.
- Fam. 6. *Tellinidæ*.
 a. Psammobia.
 Psammotea.
 b. Tellina.
 Macroma.
 Arcopagia.
 Strigella.
 c. Ligula.
 Semele (Amphidesma).
 Cumingia.
 d. Petricola.
- Clotho.
 e. Mysia.
 f. Donax.
 Hecuba.
 Cuneus.
 Latona.
 Iphigenia.
 Capsa.
 Galathea.
- Order II. CLADOPODA.
- Fam. 1. *Pholadæ*.
 Pholas.
 Barnia.
 Zirfæa.
 Mactresia.
 Talona.
 Xylotrya.
 Guetera.
 Iouannetia.
 Teredina.
 Teredo.
 Bankia.
 Kuphus.
- Fam. 2. *Gastrochænadæ*.
 Aspergillum.
 Foegia.
 Bryopa.
 Clavagella.
 Fistulana.
 Gastrochæna.
 Furcella.
- Fam. 3. *Solenidæ*.
 a. Solen.
 Ensis.
 b. Pharus.
 Cultellus.
 Solecurtus.
 c. Panopea.
 d. Glycimeris.
 e. Ctenoconcha.
- Fam. 4. *Anatinidæ*.
 a. Auriscalpium.
 Periploma.
 Cochloidesma.
 Hemicyclostoma.
 b. Thracia.
 c. Lyonsia.
 Myodora.
 d. Camostrea.
 Myochama.
- Fam. 5. *Myadæ*.
 Mya.
 Platyodon.
 Sphania.
 Tugonia.
- Fam. 6. *Corbulidæ*.
 Corbula.
 Harlea.
 Tomala.
 Raleta.
 Neara.
- Fam. 7. *Pandoridæ*.
 Pandora.
- Fam. 8. *Solenomyadæ*.
 Solenomya.
- Fam. 9. *Galeommidæ*.
 Galeomma.
- Fam. 10. *Lasiadæ*.
 Lasea.
 Kellia.
 Lepton.
- Fam. 11. *Saxicavidæ*.
 Saxicava.
 Hiatella.
- Order III. GONIOPODA.
- Fam. 1. *Chamidæ*.
 Chama.
 Arcinella.
 Dicerar.
 ? Caprina.
- Fam. 2. *Etheriadæ*.
 Etheria.
 ? Mulleria.
- Fam. 3. *Carditidæ*.
 Cardita.
 Jersonia.
 Agaria.
 Venericardia.
 Ophis.
 Myoconcha.
- Fam. 4. *Crassinidæ*.
 Astarte.
 Goodallia.
 Nicania.
 Cardinia.
- Fam. 5. *Crassatellidæ*.
 Crassatella.
- Fam. 6. *Isocardiadæ*.
 Isocardia.
- Fam. 7. *Lucinidæ*.
 a. Lucina.
 Semele.
 Diplodonta.
 Cyrenella.
 Myrtea.
 Corbis.
 Mysia.
 b. Loripes.
 Ungulina.
 c. Lenticularia.
 Cryptodon.
 Verticordia.
 Thetis.
- Fam. 8. *Unionidæ*.
 Anodon.
 Margaritana.
 Alasmodon.
 Damaris.
 Unio.
 Heterodon.

- Dipsas.
Monocondyla.
- Fam. 9. *Iridinidæ*.
Iridina.
Leila.
Pleiodon.
Hyria.
Castalia.
- Fam. 10. *Mycetopodidæ*.
Mycetopus.
- Fam. 11. *Trigoniadæ*.
Trigonia.
- Fam. 12. *Arcadæ*.
a. Arca.
Litharca.
Senilia.
Argina.
Lunarca.
b. Cucullæa.
Trisis.
Barbatia.
Scaphura.
c. Nætia.
Licarea.
Pectunculus.
Trigonocælia.
Cannabina.
d. Linnopsis.
e. Nucula.
Leda.
- Order IV. *POGONOPODA*.
Fam. 1. *Tridacnidæ*.
Tridacna.
Hippopus.
Fam. 2. *Mytilidæ*.
Mytilus.
Modiola.
Fam. 3. *Crenellidæ*.
Crenella.
Modiolarca.
Fam. 4. *Dreissenidæ*.
Dreissena.
Congeria.
Mytilimeria.
Fam. 5. *Pinnidæ*.
Pinna.
Atrina.
Fam. 6. *Aviculidæ*.
a. Malleus.
Vulsella (Reniel-
la.)
- Avicula.
Margarita.
Pterynea.
Monotis.
Wolfataria.
Posidonia.
b. Crenatula.
Dalacia.
Inoceramus.
Catillus.
Pachymya.
Perna.
c. Gervillia.
- Order V. *MICROPODA*.
Fam. 1. *Pectinidæ*.
a. Pecten.
Pallium.
Janira.
Amusium.
Neithæa.
Pycnodonte.
b. Lima.
Plagiostoma.
Limacula.
c. Pedum.
Fam. 2. *Spondylidæ*.
Spondylus.
Pachyotos.
Podopsis.
Dianchora.
Plicatula.
Hinnites.
Harpax.
Fam. 3. *Ostreidæ*.
Ostrea.
Gryphæa.
Exogyra.
Alectryonia.
Plectryonia.
Carolia.
Fam. 4. *Placunidæ*.
Placuna.
Fam. 5. *Anomiadæ*.
Anomia.
Placunanomia.
Pododesmus.
- Class III.
BRACHIOPODA.
Fam. 1. *Lingulidæ*.
Lingula, 38.
Fam. 2. *Terebratulidæ*.
a. Terebratula, 38.
b. Spirifer, 38.
Fam. 3. *Discinidæ*.
Discina, 38.
- Fam. 4. *Craniadæ*.
Crania, 38.
Fam. 5. *Thecideidæ*.
Thecidea, 38.
Fam. 6. *Productidæ*.
Productus, 38.
? Calceola, 38.
- Class IV.
PTEROPODA.
Order I. *THECOSOMATA*.
Fam. 1. *Cleodoridæ*.
a. Hyalæa, 38.
Diacria, 38.
b. Cleodora, 38.
Balantium, 38.
Pleuropus, 38.
Vaginella, 38.
Crescis, 38.
Brochus, 38.
Psyche, 38.
Euribia, 38.
Fam. 2. *Limacinidæ*.
Limacina, 38.
Fam. 3. *Cuvieridæ*.
Cuvieria, 38.
Tripteres.
Fam. 4. *Cymbuliadæ*.
Cymbulia, 38.
Order II. *GYMNOSOMATA*.
Fam. 1. *Pneumodermidæ*.
Pneumodermon.
Spongobranchia.
Trichocyclus.
Fam. 2. *Cymodoceadæ*.
Cymodocea.
Fam. 3. *Clionidæ*.
Clio.
Class V.
CEPHALOPODA.
Order I. *SEPIOPHORA*.
Fam. 1. *Octopodidæ*.
Ocythoe.
Octopus.
Eledona.
Philonexus.
Cirroteuthis.
Fam. 2. *Sepiadæ*.
Sepiola.
- Russia.
Onychoteuthis, 38.
Enoplotheuthis.
Kalæno.
Peratoptera.
Omastrepes.
Loligopsis.
Histrioteuthis.
Cranchia, 38.
Loligo, 38.
Sepioteuthis, 38.
Teudopsis.
Sepia, 38.
Beloptera, 38.
? Fam. 3. *Belemnitidæ*.
Belemnites, 38.
Belemnitella.
Belemnosepia.
Gasterosiphone.
Notosiphone.
Belemnotheutis.
Fam. 4. *Spirulidæ*.
Spirula, 38. *D'or Seg + 1841*
Fam. 5. *Ammonitidæ*.
Ammonites, 38.
Planites, 38.
Globites, 38.
Criocera.
Toxoceras.
Ancyloceras.
Scaphites, 38.
Hamites, 38.
Turrilites, 38.
Helicoceras.
Baculites, 38.
- Order II. *NAUTILOPHORA*.
Fam. 1. *Nautilidæ*.
Omphalia, 38.
Nautilus, 38.
Clymenis, 38.
Aganides, 38.
Lituities, 38.
Orthostoma.
Gyroceratites.
Orthoceras, 38.
Huronia.
Conoceras.
Cyrtolites.
Cyrtocheras.
Actinoceras.
Fam. 2. *Goniatidæ*.
Phragmolites.
Ceratites, 38.
Goniatites, 38.

JOHN EDWARD GRAY.

May 21, 1842.

LIST OF PORTRAITS

Suspended on the Walls of the EASTERN ZOOLOGICAL GALLERY of
the BRITISH MUSEUM. 1842.

First Compartment. Beginning on the left from the Mammalia Saloon.

1. KING JAMES I. On pannel. *Presented by Dr. A. Gifford.*
2. KING HENRY VIII. On pannel. *Presented by Dr. Andrew Gifford, in 1758.*
3. OLIVER CROMWELL. "A copy from Mr. Cromwell's original, grandson to Hen. Cromwell, L^d. L^t. of Ireland. 1725." *This Portrait came with the Cottonian Library.*
4. MARY QUEEN OF SCOTS, by Corn. Jansen. } *Presented by Dr.*
5. KING EDWARD III. On pannel. } *A. Gifford.*
6. KING GEORGE I. *From the Old Cottonian Library.*
7. HENRIETTA MARIA, QUEEN OF CHA. I. } *Presented by Dr. A.*
8. KING HENRY VI. On pannel. } *Gifford.*
9. OLIVER CROMWELL, by Walker. *Bequeathed, 1784, by Sir Robert Rich, Bart., to whose great-grandfather, Nathaniel Rich, Esq., then serving as a Colonel of Horse in the Parliament Army, it was presented by Cromwell himself. On pannel.*
10. KING JAMES I. *Presented by Mr. Cook.*
11. MARY QUEEN OF SCOTS, "æt. 42." On pannel. *Presented by Lieut.-Gen. Thornton.*
12. KING WILLIAM III. *Presented by Dr. A. Gifford.*
13. WILLIAM DUKE OF CUMBERLAND, by Morier. *Presented by Lieut.-Gen. Thornton.*
14. JAMES DUKE OF MONMOUTH. *Presented by Dr. A. Gifford.*
15. KING RICHARD II. *Presented, in 1766, by John Goodman, Esq., of the Middle Temple.*
16. QUEEN ELIZABETH, by Zucchero. *Presented by the Earl of Macclesfield, 1760.*
17. MARY QUEEN OF SCOTS.
18. KING GEORGE II., wh. l., by Shackleton. *Painted for the Trustees.*
19. QUEEN ELIZABETH. "Anno Dñi 1567." On pannel. *Presented by Lord Cardross, 1765.*
20. MARGARET COUNTESS OF RICHMOND. *Presented by Dr. A. Gifford.*
21. KING CHARLES II., by Sir P. Lely. *Presented by Dr. A. Gifford.*
22. KING HENRY V. On pannel. *Presented by Dr. A. Gifford.*
23. KING EDWARD VI. *Presented, in 1768, by Mrs. Mary Mackmorran.*
24. CAROLINE, QUEEN OF GEO. II., by Jarvis. *Presented by Lieut.-Gen. Thornton.*

Second Compartment.

25. DR. ANDREW GIFFORD, by Russel, 1774. *Bequeathed by himself, 1784.*
26. REV. DR. THOS. BIRCH, painted in 1735. *Bequeathed by himself.*
27. JAMES, 1ST DUKE OF CHANDOS, wh. l. *Presented by James Farquharson, Esq.*
28. HUMPHRY WANLEY, Librarian to the Earl of Oxford. *Presented by Herbert Westfaling, Esq.*

29. CLAUDIUS JAMES RICH, Esq., born 1787, died at Shiraz, 1821. Resident of the English East India Company at Bagdad from 1808 to 1821, whose Collection of MSS., Medals, and Antiquities is placed in the British Museum. *Presented by his Widow.*
30. JOSEPH PLANTA, Esq., F.R.S., Principal Librarian of the British Museum, from 1799 to 1827, by T. Phillips, R.A. *Presented by the Right Hon. Joseph Planta, G.C.H.*
31. SIR HANS SLOANE, as "President of the Royal Society." Half length. "Stepⁿ. Slaughter pinx. 1736."
32. SIR HANS SLOANE, wh. l. seated.
33. DR. JOHN WARD, of Gresham College. *Presented by T. Hollis, Esq.*
34. DR. MATTHEW MATY, 2d Principal Librarian of the British Museum, by Dupan. *Bequeathed by himself, 1776.*
35. MAJOR-GENERAL HARDWICKE, by W. Hawkins. *Presented by J. E. Gray, Esq.*
36. SIR HANS SLOANE, by Murray.
37. DR. FRANCIS TURNER, BISHOP OF ELY.
38. ROBERT EARL OF OXFORD, by Sir G. Kneller. *Presented, in 1768, by the Duchess Dowager of Portland.*
39. SIR ROBERT COTTON. *Presented, in 1792, by Paul Methuen, Esq., of Corsham.*
40. SIR JOHN COTTON. *From the Old Cottonian Library.*
41. RT. HON. ARTHUR ONSLOW, Speaker of the H. of Commons, wh. l. *Presented by Admiral Onslow.*
42. SIR THOMAS COTTON. *Presented by his descendant, Mrs. H. M. Bowdler, 1826.*
43. SIR ROBERT COTTON, A.D. 1629. *From the Cottonian Library.*
44. EDWARD EARL OF OXFORD, by Dahl. *Presented, in 1768, by his daughter, the Duchess Dowager of Portland.*
45. HUMPHREY WANLEY. *Presented by the Earl of Leicester, in 1795, afterwards Marq. of Townshend and E. of Leic. "Humphredus Wanley Coventriensis, 1717."*
46. REV. DR. THOMAS BIRCH.

Third, or Central Compartment.

47. PETER I., EMPEROR OF RUSSIA, "from an original, drawn by Klingstad, in the possession of the Earl of Hertford, 1725; then Ambassador at Petersburg." *From the Old Cottonian Library.*
48. PEDIGREE OF THE CORNELIA FAMILY.
49. STANISLAUS AUGUSTUS I., K. OF POLAND. } *Presented by the*
 50. CHARLES XII. OF SWEDEN. } *Rev. A. Planta.*
51. A HUNTING PIECE, by Gio. Battista Weenix.
52. LOUIS XIV. *Presented by the Rev. A. Planta.*

Fourth Compartment.

53. LORD CHANCELLOR BACON. *Presented by Dr. A. Gifford.*
54. AN UNKNOWN HEAD, in ruff and beard; on pannel; "Ætatis suæ 59. 1608."
55. JOHN DUKE OF MARLBOROUGH.
56. WILLIAM COURTEN, Esq., when young, inscribed "Gul. Courten Arm."
57. ANDREW MARVEL. *Presented by Robert Nettleton, Esq., Gov. of the Russia Company.*

58. ADMIRAL LORD ANSON. A copy from the Picture at Wimpole. *Presented, in 1814, by the Earl of Hardwicke.*
59. ARCHBISHOP USHER. *Presented by Dr. A. Gifford.*
60. DR. THOMAS BURNET. "Ad vivum pinxit Romæ Ferdinand, 1675." *Bequeathed by Matthew Waters, Esq. 1788.*
61. HENRY STEBBING, D.D. "Jos. Highmore pinx. 1757." *Presented by his grandson Henry Stebbing, Esq. 1813.*
62. SIR HENRY SPELMAN. *Presented by Dr. A. Gifford.*
63. AN UNKNOWN HEAD, a scull in the right hand; on pannel; "Ætatis suæ 24. A° 1569."
64. SIR WILLIAM DUGDALE.
65. WILLIAM CECIL, LORD BURGHLEY. On pannel. *Presented by Dr. A. Gifford.*
66. MATTHEW PRIOR, by Hudson, from an original of Richardson. *Presented by the Earl of Besborough, 1775.*
67. AN UNKNOWN PORTRAIT. In one corner is written "J. Ray." *Bequeathed by Sir William Watson: said to have been painted by Mrs. Beale.*
68. WILLIAM CAMDEN. On pannel. "Ætatis LVIII. MDCIX."
69. SIR ISAAC NEWTON. *Bequeathed by John Hatsell, Esq., Clerk of the H. of Commons. 1821.*
70. REV. JOHN RAY. *This Portrait belonged to Sir Hans Sloane.*
71. JOHN SPEED, the historian. On pannel.
72. ARCHBISHOP CRANMER, "Anno etatis 57, Julij 20," by Gerlach Flicke*. "Gerlacus fliccius Germanus faciebat." On pannel. *Presented, in 1766, by John Michell, Esq. M.P. of Bayfield Hall, Norfolk.*
73. WILLIAM SHAKSPEARE. *Presented by M. Maty, M.D.*
74. GEORGE BUCHANAN. A small portrait on pannel. "Ætatis 76. Ano. 1581."

Fifth Compartment.

75. VOLTAIRE. *Presented by M. Maty, M.D. 1760.*
76. AN UNKNOWN HEAD.
77. VESALIUS, on pannel, by Sir Antonio More. *This Portrait belonged to Sir Hans Sloane.*
78. AN UNKNOWN PORTRAIT. *Presented by Dr. A. Gifford.*
79. A PORTRAIT (called CHA. I. when Prince). *Presented, in 1759, by Mrs. Elizabeth Gambarini.*
80. ANNA MARIA SCHURMAN, by John Lievens.
81. SIR FRANCIS DRAKE.
82. POPE CLEMENT X.
83. SIR ANTONIO MORE. On pannel. *Presented by Dr. A. Gifford.*
84. COSMO DE MEDICI and his SECRETARY BARTOL. CONCINI. A copy from Titian. *Brought from the Old Cottonian Library.*
85. MARTIN LUTHER, a small wh. l. on pannel. "D. Martinus Luter, 1546, 18 Febr. Ætatis 63 iær."
86. QUEEN MARY I. OF ENGLAND. "Maria Princeps, Año Dom. 1531." "I. B." initials of the painter. *Presented by Sir Thomas Mantel.*
87. GEORGE, TENTH AND LAST EARL MARISCHAL OF SCOTLAND. On copper; painted at Rome, 1752, by Placido Costanzi. *Presented by Lord Glenbervie.*

* Gerlach or Gerbertus Fliccius. See Walp. Anecd. of Paint. 4to edit. p. 495.

88. JEAN ROUSSEAU, employed in the Paintings of Montague House. *Presented by Mrs. Wollfryes, 1757.*
89. CAPT. WILLIAM DAMPIER, by Murray. *It belonged to Sir Hans Sloane.*
90. CARDINAL SFORZA PALAVICINI, 1663. *Presented by Smart Lethieullier, Esq.*
91. ULYSSES ALDROVANDUS, by Giorgioni. *It belonged to Sir Hans Sloane.*
92. AN UNKNOWN PORTRAIT of a Gentleman in a ruff and long beard: "Ætatis suæ 66, An. Dom. 1590." On pannel.
93. ISABELLA, Infanta of Spain.
94. ST. EVREMOND. *Presented by M. Maty, M.D.*
95. SIR PETER PAUL RUBENS.
96. LANDSCAPE by Wilson.
97. JOHN GUTENBERG, the inventor of the art of printing with moveable types. *Presented by Paul Vaillant, Esq.*
98. HENRY FREDERICK, PRINCE OF ORANGE. *Presented, in 1782, by Lord Fred. Campbell.*
99. JOHN LOCKE. *Presented by Matthew Maty, M.D.*
100. GOVERNOR HERBERT, by Devis. *Presented by Admiral Page.*
101. JAMES PARSONS, M.D. "Ætat. 60 anno quo Benj. Wilson pinxit, 1762." *Bequeathed by Dr. Knight, 1772.*
102. JOHN WALLIS, D.D., the Mathematician.
103. MARY DAVIS, an inhabitant of Great Saughall in Cheshire, taken 1668, "ætatis 74." At the age of 28 an excrescence grew upon her head, like a wen, which continued 30 years, and then grew into two horns, one of which the profile represents.
104. SIR JOHN DODERIDGE. *Presented by Dr. A. Gifford.*
105. DR. GOWIN KNIGHT, 1st Principal Librarian of the British Museum, by Benjⁿ. Wilson. *Bequeathed by Dr. Knight, 1772.*
106. FRANK OF BORSALIA, EARL OF OSTERVANT, who died in 1470.
107. ALGERNON SIDNEY.
108. ALEXANDER POPE. *Presented by Francis Annesley, Esq.*
109. UNKNOWN, t. Cha. II.
110. PHILIP DORMER, EARL OF CHESTERFIELD, by Ramsay, 1765. *Presented by Sir Thomas Robinson, Bart. in 1777.*
111. RICHARD BAXTER. *Presented by Dr. A. Gifford, 1760.*
112. SIR HENRY VANE, JUN. *Presented by Thomas Hollis, Esq.*
113. LODOWICK MUGGLETON, "Aged 66, 1674."
114. THOMAS BRITTON, the Musical small-coal-man, "Ætat. 61, 1703." By Woolaston.
115. MR. GEORGE VERTUE, the Engraver, "Æt. L. 1733." *Presented by his widow, 1775.*
116. ROBERT CECIL, 1ST EARL OF SALISBURY. On pannel. *Presented by Dr. A. Gifford.*

. The following Portraits, formerly Nos. 61, 84, 85, 87, 107, and 108, viz. Geoffrey Chaucer, 1400, a small wh. l. on pannel; a Limning of Frederick III. of Saxony, by Lucas Cranach; the Portraits of Moliere, Corneille, and an unknown head by Dobson, all on pannel; with the Portrait of a Pope or Cardinal; on account of their diminutive size, have been transferred to the Print Room.

HENRY ELLIS.

May 14, 1842.

THE NORTHERN ZOOLOGICAL GALLERY.

FIRST ROOM.

THIS Room may be considered as an appendage to the two foregoing. The Wall Cases contain a series of the skulls of the larger Mammalia, to illustrate the characters of the families and genera, and of the nests of birds, and the arbours of the two species of Bower-birds, the one ornamented with fresh water shells and bones, and the other with feathers, land-shells, &c. The Table Cases contain the tubes of annulose animals, and the casts of the interior cavities of shells and various specimens of shells, illustrative of the diseases and malformations of those animals.

The first Table Case contains the hard cases of the ANNULOSE ANIMALS which are destitute of jointed feet, and are only provided with bristles to assist them in moving from place to place. The species are very numerous, as may be seen by the specimens kept in spirits in the Fifth Room of this Gallery, but only a few of them, as the *Amphitrite* and the *Serpula*, have cases for their protection. The cases of the *Amphitrites* only consist of a membranaceous tube, which being deposited in a fluid state, attaches the stones, sand, and other neighbouring bodies to its outer surface. These bodies add to the strength of the tube, and also assist in concealing the animal from fishes and other rapacious animals. It is doubtless for the same reason that the larvæ of the Caddis Fly found in ponds make cases of a somewhat similar structure. The cases of the *Serpula* and allied genera are hard, like shells, and formed in the same manner by the deposition of a quantity of animal matter mixed with a chalky secretion, proceeding from the glands on the surface of the animal. As the animal enlarges in growth, and requires a larger case for its protection, it continually adds new layers of this matter near the end of the shell where its head is placed, and drawing its enlarged body forwards, gradually increases the size of the tube to fit it to the body, on which it is, as it were, moulded, and thus the tube assumes a tapering form. It is difficult to distinguish the tubes of some of these animals from the tubular shells of Mollusca, such as *Vermetus*, *Magilus*, &c., (some species of which Lamarck confounded with them,) unless the animal can be examined; but there is always one difference, that the animals of *Mollusca* are invariably attached to their shell by a strong muscle, and never quit it except at their death, while the *Annelides* only use it as a place of retreat, are not in any way attached to their shells, and often leave and form fresh ones, as occasion may require.

These animals are generally provided with an appendage on the side of the head, which bears on its end a calcareous operculum, used to close the mouth of the tube when the animal is contracted into it. The opercula vary greatly in shape in the different genera, and sometimes even in the individuals of the same species in the same group of shells. Turton described the operculum of one of the British species under the name of *Patella tricornis*. The operculum of the New Holland genus, *Galeolaria*, is very complicated, and furnished with a series of reflexed plates on the edge.

In Cases 3 and 4 are exhibited a series of shells exhibiting the more prominent points in the economy of Mollusca, as---

1. The great variations in size, the difference of surface and solidity, and the variations in external form produced by the development or non-development of the different processes in the individuals of the same species, all circumstances dependent on the quantity of food and the kind of locality they inhabit.

2. The change that takes place in the form of the shell during the growth of the animal, as the expansion of the lip of the *Strombidae* and the *Cerithia*, the contraction and inflection of the lips of the *Cypridae*, and the development of the varices of the *Muricidae*.

3. A series of sections of shells to shew the form of the cavity, the form of the plaits, and the contraction of the size of the cavity of the shell to adapt it to the moving forward of the body of the animal, by the deposition of the glassy coat on the upper part of the whorls, or the deposition of cross septa separating the upper part of the cavity from the rest of the shell, which is most perfectly developed in the Chambered shell, or *Nautili*.

4. Specimen shewing the manner in which the animals mend any accident to their shell.

5. Specimen exhibiting the manner in which Mollusca remove by absorption certain parts of the shell which are no longer necessary to them, or may be in the way of their growth, and of the holes which they make in shells, rocks, or wood, to form habitations for themselves and to procure their food.

6. The specimens exhibiting the manner in which the tubular shells are rolled up into a spire, beginning with the nearly straight *Dentalium*, gradually passing by the irregularly twisted *Vermetus* and the separate whorled *Scalaria*, to the common spiral shell; others, shewing the gradations of form in the involute and spiral shell; and lastly, some deformed specimens exhibiting the same variations in different individuals of the same species of Mollusca, and the monstrosities which occur in the form of shells.

7. Specimens shewing the manner in which Mollusca cover with a shelly coat any extraneous body which may become attached to their shells.

In Cases 5 and 6 are a series of plaster casts of the interior of the different shells of living Mollusca, to facilitate the determination of the casts of the fossil species, which are so commonly found in the Portland stone and other geological formations; at the same time these moulds are useful as shewing the form of the mantle of the different species of Mollusca, which is so liable to be distorted or contracted in the preserved specimens, and exhibiting how completely the shell is moulded on the body.

In Cases 7 and 8 are placed a series of models on an enlarged scale, and some specimens of minute bodies. The nature of the animals which form them is not known; and they may belong to several different orders. Some have supposed them to be internal shells; but this cannot be the case with all, as many are attached by their outer surface to sea-weeds and shells. From their being formed of numerous chambers, they have been generally associated with the *Nautili*, but they differ essentially from the latter in their construction, which consists of a number of cells piled one on the other; and in having no terminal cavity for the reception of the body of the animal. The cells are fur-

nished with one or more small mouths, and placed one on another in different directions, some forming straight lines, as *Nodosaria*, and others spiral ones, as *Rotalia*. In others the cells are half the length of a whorl, so that each new cell changes the situation of the mouth from one to the other end of the shell, as in the *Miliolæ*: and in others the cells are divided into numerous longitudinal tubes, as in *Alveolina* and *Fabularia*.

These animals have been generally arranged with the *Nautili*, and some have classed them with the *Cephalopodous Mollusca*, while others have thought they might be formed by animals allied to the *Annelides*. One author has proposed that they should be formed into a class, which he proposes to call *Rhizopodes*; but it is not improbable, when they shall have been more completely examined, that they will be found to be allied to the *Polyzoa*; and the body, which has been called their shell, may prove to be only a hardened skin, like the cells formed by that class of animals.

SECOND ROOM.

The Upright Cases round the Room contain the collection of REPTILES and BATRACHIAN ANIMALS preserved dry and in spirits, and the Table Cases the first part of the collection of the hard parts of Radiated Animals, including the Sea Eggs, Sea Stars, and Encrinites.

REPTILES are known from the rest of the vertebrated animals by being covered with scales, respiring by means of lungs, and having an imperfect circulation and cold blood, which causes them to be cold to the touch. They increase by eggs, but sometimes the eggs are hatched in the bodies of the mother, and the young, when they are first born, are like their parents. They are divided into the Scaly and the Shielded Reptiles, according to the structure of the scales, and the formation of their skull.

I. The Scaly Reptiles (*SQUAMATA*) have their bodies covered with overlapping scales, the skull formed of separate bones, and the ear bones are external, and only articulated to the rest; their vent is a cross slit, and the generative organs are bifid. They consist of the Saurian Reptiles or Lizards, and Ophidian Reptiles or Snakes.

The SAURIAN REPTILES (*Sauria*) are generally provided with four limbs, but in some the limbs are in such a rudimentary state, as to be hidden under the skin. The jaw bones are united together in front, for as these animals live on insects, fruits, &c., which they reduce by chewing, they are not required to dilate their mouths for the swallowing of large masses, as is the case in the snakes.

The family of Monitors (*MONITORIDÆ*, Cases 1 to 3) have a long deeply forked tongue, which, like that of the snakes, is capable of being withdrawn into a sheath placed at its base, and the head, body and limbs are covered with small scales. They are only found in the warmer parts of the Old World, living near the water's edge, and are venerated by the natives, who assert that they give notice of the approach of the Crocodiles by hissing when they perceive one of those animals. Whether this be fact or fiction, the name, Monitor, is probably to be traced to that origin. The *Psammosauri*, have oval nostrils near the orbits, and a roundish tail. The *Monitors* have oblong longitudinal nostrils in the middle, between the apex of the muzzle and the orbit,

the tail is compressed and with a double keel above. In *Hydrosaura*, the nostrils are apical, and in *Odatria* the scales of the tail are sub-spinose.

The family of Heloderms (HELODERMIDÆ, Case 3) have their body and head covered with large convex scales. Unlike other lizards, their teeth have a groove behind, like the fangs of serpents; they are said to be poisonous, but this may be a mistake, for ignorant persons are inclined to believe that all reptiles are dangerous. They come from Mexico, and having been seen in a dried state only, the form of their tongue is not known.

The following lizards have an equally lengthened and deeply forked tongue, but it only contracts its length, and is not furnished with any sheath.

The family of Safeguards, (TEIDÆ, Case 4,) which have the head covered with large shields, and the back and limbs with small scales, are confined to the warmer part of the New World. Some have two cross folds on the throat with six-sided scales between them; the ventral shields are small and longer than broad in *Teius*; larger and broader than long in *Ameiva*. Others have a collar of large shields like the Lizards; in *Acanthopyga* and *Centropyx* the ventral and collar shields are lanceolate and keeled, and the tail is round; in the former the scales of the back are large and in the latter small. The genera *Ada* and *Crocodylurus*, have a compressed tail with two ridges of scales, and the ventral shield is small and long, like the *Teii*.

The family of True Lizards, (LACERTIDÆ, Case 4,) which are peculiar to the Old World, chiefly differ from the former in their eyelids being protected by a bony plate. Many species are found in Europe. One species, *Zootoca crocea*, found on our heaths, is said to hatch its young in the body of the mother, if it be kept in a dry place; but to deposit eggs, if in a moist one. Some have a distinct collar and granular scales on the back, and erect apical nostrils on the side of the nose, broad smooth ventral shields, and simple toes, as the *Zootoca*, which have the nostrils in a suture between two scales, and square abdominal shield, and *Lacerta*, which has the nostrils between three scales, and the central series of abdominal shields with oblique sides. *Teira* only differs from the former in the central series of abdominal shields being square, and in *Eremias* they are oblique on the sides, and there are several preanal scales one behind the other. Others have a distinct collar, rather granular dorsal scales, horizontal nostrils in the keel on the side of the muzzle, the toes fringed, and the ventral shields oblique, as the *Scapteria*, with the nostrils on the upper edge of the first lateral shield, with two small shields above and behind it, and *Mesoles*, which have them between two plates. The *Masulina* have no collar, but only a small axillary plate on each side, lanceolate, keeled dorsal scales, and superior subapical nostrils; and lastly, *Calrita*, *Algira* and *Psammotromus* have an indistinct collar united to the breast in the middle with distinct plaits on the sides and keeled rhombic scales.

Most of these animals have the faculty of forming a new tail when it has been broken off, an accident which often happens in the mere exertion of the animal to escape from danger. The new formed tail has only a central cartilage in the place of the bones, and is often covered with scales different from those of the rest of the tail. If the

tail be cracked only on one side, and not thrown off, a new tail often springs out of the crack, so that the member becomes forked. A specimen of a Lizard with such a tail, may be seen in this Case.

The family of ZONURIDÆ (Case 4) are very like the true lizards, but the back and belly are covered with large nearly square shields, and the sides, which are only dilated when the animal has eaten a full meal, are covered with small scales. Some have four distinct, moderately long legs, and exposed ears. The African Lizards of this group are distinguished by their thighs being marked with a line of pores on the under side. In *Zonurus*, the tail is furnished with spinose scales; in the *Cicigna* these scales are smooth. The *Tachidromi* of Java have a very long body, and only one pair of femoral pores; their scales are rhombic. The *Caitea* of Africa have also a very long body, but the feet are rudimentary, the front ones are long and slender, the hinder compressed and undivided. The American species, (*Gerrhonotus*,) on the contrary, have no glands under the thighs, and the scales of the tail are smooth and the ears exposed. The *Abronia* have a depressed head with an odd anterior central plate, which is not found in the *Barisia*; the scales of the former are smooth and of the latter keeled. The *Elgaria* have a large central anterior frontal plate placed between two pairs of long band-like anterior ones. The Scheltopusiks (*Pseudopi*) of Europe have only rudiments of legs, in the form of undivided lobes, placed on the side of the vent; and the Glass Snakes of North America (*Ophisauri*) are quite destitute of legs: the species of these latter genera have the drum of the ear exposed.

The CERCOSAURIDÆ (Case 4) are long cylindrical reptiles, with rounded sides, covered like their backs with square scales placed in cross series. The scales of the tail are keeled, and placed in longitudinal series, of the throat, belly, and under sides of the tail, flat and square.

The family of CHIROCOLIDÆ chiefly differ from the former in the scales of the tail being placed in rings alternating with each other; they have a double collar on the throat.

The family of CHAMÆSAURIDÆ (Case 4) have only rudimentary limbs, and all the scales of the body are elongate, keeled and placed in longitudinal series.

The family of Scincs (SCINCIDÆ, Case 5) have a shielded head, like the true lizards, but the body, tail, and limbs are covered with uniform overlapping scales, which are generally smooth and polished; they have only a small plate on the end of the muzzle, and two distinct eyelids. The True Scincs (*Scinci*) have four legs, with small margined toes, and a sharp edged muzzle, which enable them to bury themselves with facility in the sand of the deserts they inhabit. The genus *Sphærops* only differs from them in having simple toes and no apparent ears. Others have blunt noses, a spindle-shaped body with five toes to each of the four feet, as *Trachysaurus*, *Egernia*, *Tiliqua*; the first has large rugose bony scales, and a short depressed tail; the two latter have a conical tapering tail, and the second has spiny scales to the tail. The *Lygosoma* have very long slender bodies, and four very small, weak feet. The species of *Seps* are like the former, but have only three toes on each foot; and the *Siaphos* has the ears concealed under the skin. The *Ophiodes* are peculiar for having only two oblong lobes in the place of legs; the *Ronia* has only two small rudimentary subulate front

legs, and none behind; and the Blindworms (*Angues*) have only rudiments of legs quite concealed beneath the skin.

The family of GYMNOPHTHALMIDÆ (Case 5) chiefly differ from the former in their eyes being always exposed, and destitute of any lid, like the serpents, as *Microlepis*, *Ablepharis*, which have four legs with divided toes; the *Cuminia* with four rudimentary tapering legs, undivided at the end; and *Lerista*, which have only two hinder limbs.

The family of RHODONIDÆ (Case 5) differ from the ScinCs in having a large, depressed, sharp edged rostral plate with the nostrils in its upper part. Their eyelids are rudimentary, as *Rhodona* and *Sori-dia*.

The family APRASIADÆ (Case 5) differs from the other families in the shields of the head, and in the nostrils being placed in the suture between the top of the front upper labial and the anterior frontal plates; they have no ears. The *Aprasia* has no limbs, while the *Brachymeles*, which also appears to belong to this family, has four rudimentary legs, each divided into two toes.

The family of PYGOPIDÆ (Case 5) have only two rudimentary compressed undivided limbs on the side of the vent. The nostrils are in the suture between the outer angle of the nasal and the front loreal shield, the ears are distinct, and the belly has two or four series of broad six-sided ventral shields, and the tail three series of broad shields, the central ones broader than the rest. The *Pygopi* have keeled dorsal scales, a series of preanal pores, and a round pupil. The *Delma* have small scales, an elliptical erect pupil, no preanal pores, and shorter limbs.

The family of LIALISIDÆ (Case 5) are like *Pygopidæ* in appearance, and have similar, but more rudimentary limbs on the side of the vent; but the head is covered with small scales. All the specimens of the four latter families are confined to Australia.

In the family of ACONTIADÆ (Case 5) the face and chin are each inclosed in a large cap-shaped shield; the upper one is pierced with the nostrils, which have a groove to its hinder edge. Their bodies are nearly cylindrical, with blunt ends, and the limbs are hidden under the skin.

The remainder of the Saurian Reptiles have a short contractile tongue, slightly notched at the end.

The family of Geckos (GÆCKOTIDÆ, Case 6) are Night Lizards, having a dull, lurid appearance, with depressed heads, and large round eyes. Their body is usually covered with small scales, amongst which are frequently larger tubercles; and the under side of their toes is generally furnished with variously shaped overlapping scales, or folds of the skin, which enable the animal to crawl up glass, and even to run with facility, back downwards, on the ceiling of a room, like a fly. They are found in all parts of the world, and are divided into many genera, according to the form of their toes.

The true Geckos have only a single cross series of scales, on the under side of each toe. *Eublepharis* differs from the former, by the toes being more slender, and less dilated. *Pteropleura*, has the skin on the side of the chin, body, limbs and tail expanded into a kind of fin, which the animal uses as a parachute to assist itself in jumping from tree to tree, like the dragons. Many of the species of these Lizards, from their lurid appearance, are considered as poisonous by the natives

of India, and some even assert that they infect every substance which they walk over, but this is, at least, extremely doubtful; some of them hold so fast by their short, sharp, hidden claws as to produce small cuts on the skin of the person over whom they walk, which in warm climates are painful and difficult to heal.

Other Geckos have the scales under the toes divided by a central groove, into which the claws are withdrawn (*Thecadactyli*). One of these, the Smooth Sheath-claw (*Gecko lævis*) has many scales under the toes, and on being caught, the animal, in its exertion to escape, often casts off its tail. It does the same if thrown alive into spirits, in which case the separated tail contracts, and assumes an almost globular shape, and is most usually found in this state in collections, whence this species has been generally called the Turnip-tail Gecko (*Gecko rapicauda*). The *Phyllodactylus* has only two or three cross scales on each side of the claws, so that the ends of the toes very nearly resemble the tips of the feet of the common fly. In the *Ptyodactylus*, the scales under the toes spread out from a centre, like the sticks of a fan; and the *Uroplates*, from Madagascar, has the scales under the toes very like the former, but the edges of its body and tail are spread out into fins like lobes. Those Geckos which have these fringes, have been commonly regarded as aquatic animals; they are now known to live on trees, using the fins as parachutes to assist them in leaping.

Another group (*Hemidactylus*) has only the base of the toes swollen out, the ends being narrow and free. These are common about dwellings in warm countries, and are therefore usually called House Lizards. Their food consists principally of insects, especially flies, for destroying which they are protected by the inhabitants. The last group (*Cyrtodactylus*) has the form and habits of the Geckos, but differs in the toes being very thin, slender, versatile, and peculiarly arched, so as to give them the power of grasping very strongly; most of these have the tail slender and round, while the *Phyllurus* of New Holland has a heart-shaped, broad, flat tail.

The family of GUANAS (IGUANIDÆ, Case 6) have their teeth attached to the inner edge of the jaw-bone, and most frequently lobed and indented. They are Day Lizards, covered with variously formed overlapping scales, and are only found in America. Some have a compressed dewlap under the throat, and the back crested; as the common Guana (*Iguana tuberculata*), which is used both for food and medicine in the West Indies. Other kinds of this family have only a fold across the throat, as the genera *Cyclura*, *Ophryessa*, *Tropidurus*, *Leiocephalus*, *Tropidolepis*, *Phrynosoma*. These animals are very quarrelsome, and often fight with great ardour when they meet. In other species, the false ribs, or those which are not united to the sternum, meet underneath, so as to inclose the belly in a complete circle, like those of the Chameleon, and, like that animal, these have the faculty of changing their colour with great quickness. The genera belonging to this division are marked with very striking characters; the first, the Basilisk (*Basiliscus*), has a compressed hood on the back of the head, and a fin-shaped crest down the back; the second, (*Chamaeleopsis*), from Mexico, has a compressed ridge on the back of the head, but only a slight dorsal crest; both these have simple toes: the third (*Anolis*) has a flat head, but the last joint but one of the toes is

dilated on the sides into a pear-shaped disk, so as to enable these animals to walk on smooth and nearly perpendicular surfaces; of this genus there are many species. Lastly, the Marbled Lizards (*Polychrus*) have neither dilated toes nor any dorsal crest.

Other broad-tongued Lizards have their teeth placed on the edge of the jaws, and so firmly fixed to them as to appear part of the jaws themselves; as the Chameleons and Agamæ. They are only found in the warm parts of the Old World.

The family of Agames (AGAMIDÆ, Case 7) present several peculiarities of form, and have therefore been divided into many groups. Some have the head lyre-shaped, and the back and tail crested (*Gonyocephalus*); others have the head armed with spines over the back of the ears, and the scales large and directed upwards (*Calotes*), which latter lay fusiform eggs. The *Bronchoceles* differ from the *Calotes*, by the scales of the back being small and horizontal; and the *Acanthosaura* has a square head and long subulate spines over the eyes. The true Agamæ (*Agama*) have often bundles of spines on the sides of the neck. The male *Sitana* has a large pouch under the throat, (which is quite wanting in the female,) and they have no hinder thumb. The *Stellio*, which was formerly much esteemed for its supposed medicinal qualities, has bands of large spines round its tail. The *Trapeli* or Mutable Agamæ, so called from the quickness with which they change the colour of their skin, are generally armed with irregular, spine-like scales. The *Molochs* of Australia are covered with long conical spines surrounded with small spines at their base. They are highly coloured, especially on the under side. The Earless Agamæ (*Phrynocephali*) have the same irregular scales as the Mutable Agamæ, but they differ from them and all the former, by the drum of their ears being hidden under the skin, as in the Chameleons. The *Megalochilus* differs from the former in the margin of the lips being spread out and fringed, and the claws very long. The Dragons (*Dracones*) differ from all these by the skin of the sides being spread out into the form of wings, and held up by the end of the ribs. The wings, when the animal is at rest, are folded together on the sides of the body, but when it leaps from branch to branch they are spread out, and act as a parachute; there are several species, differing from each other in the length of the throat-pouches, and in the colour of the wings. The rest of the *Agamidæ* are furnished with a series of minute glands on the under side of the hind legs; as the *Grammatophoræ*, peculiar to New Holland, which have rough scales like the Mutable Lizards, and the *Lophyri* have a crest of large scales on the back, which has caused them to be confounded with the Basilisks. Others with these glands, are peculiar for having the tail surrounded with rings of scales. In *Uromastyx*, the scales of the tail are large and spinous; in *Leiolepis* they are small and smooth.

The family of Chameleons (CHAMELEONIDÆ, Case 7) have been long celebrated on account of the rapidity with which they change their colour; but most of the other Saurian Reptiles have the same faculty, and many in as great a degree. They are remarkable for the great distance to which they can protrude the tongue, in order to catch insects, which form their principal food. They are only found in the warm parts of the Old World, and the species are chiefly distinguished from each other by the form of the head. In the common Chameleon,

the occiput is arched and compressed, whilst, in the Senegal species, it is flat; some of the species, as the Eared and Hooded Chameleons, have the back part of the occiput furnished with two fleshy lobes; whilst the Panther and Cape Chameleons have the front of the chin furnished with fleshy wattles. Others have the head armed with horns, which in some are placed over the eyebrow, as in Brookes's Chameleon; in others on the tip of the nose, as in the Two-horned Chameleon; in others on the forehead, as in the Three-horned Chameleon.

The Serpents (OPHIDIA, Cases 8—19) are without any limbs, or have them only in the form of short spurs on the side of the vent. Their mouths are capable of being opened very widely, in consequence of the bones of the jaws being separate from each other, to enable them to swallow very large bodies entire.

The most deadly poisonous serpents (*Venenosa*, Case 8) have their upper jaws furnished with large, moveable fangs, having a small groove on the outer convex edge, for conveying the poison, secreted by a large gland placed under the eye, into the wound occasioned by the bite of the reptile. The fangs, when at rest, are hid by a fold in the gums, and behind them are the rudiments of other fangs, to replace the former, if lost. The maxillary bones are small and carry only the fangs, but there are two rows of palatine teeth, in the upper part of the mouth. They are also generally distinguished by the large size of the head, which is only covered with small scales; by the scales of the body being usually rough and carinated, and by the tail being very short, and, in most instances, thin in comparison with the body. Their belly is covered with broad band-like shields. The hinder limbs are not developed; the eyes are placed on the side, and the nostrils on the top of the nose. They are arranged in two families.

The family of Rattle-Snakes (CROTALIDÆ, Case 8) have a large pit like a second nostril on the cheek, just before the eye. They are divided into several groups according to the structure of the tail, which, in the True Rattle-Snakes (*Crotali*), ends in a rattle, formed by a series of horny joints, fitting one into the other, which the animal can shake at pleasure. There are in the collection several species of this genus, and some detached rattles, to shew their structure. The *Tisiphone* (*Tisiphone*) is much like the Rattle-Snake, but the tail ends in a small recurved spine: these are all peculiar to America. The other Snakes of this division have the tail simple at the end, and are found both in the Old and New World. The *Cophias* have the head covered with scales like those on the back, as the Fer de Lance of the French American Colonists. The *Trigonocephali* have it covered with large shield-like plates.

The next family, that of Vipers, (VIPERIDÆ, Case) have the same broad head as the Rattle-Snakes, but have no pit before the eyes. Amongst these the True Vipers (*Viperæ*) are distinguished by the head being covered with scales like those on the back, and by the nostrils being very large. The Nose-horn Viper (*Coluber nasicornis*), has two horns on the end of the nose; the male of the *Cerastes* has a long horn-like scale over each eye, which being absent in the female, has caused the latter to be erroneously described as a distinct species; the Puff Adder, or Short-tailed Viper (*Vipera inflata*), is the most

deadly snake of the Cape. The Adders (*Beri*) have the head covered with granular scales, and the nostrils moderate; and the *Ammodyte* has the end of the nose lengthened into a flexible horn. The common Adder (*Coluber chersæa*) differs from these, by the crown of the head having three larger scales inserted amongst the smaller ones; this is the only reptile found in Great Britain possessed of dangerously poisonous qualities.

The Harmless Snakes, (*Ophidia Innocua*, Cases 9 to 19,) on the contrary, have strong jaws, both furnished with one or more series of teeth. The head is of moderate size compared with the body, and its crown is covered with large regular shields. These species are, in general, innocent; a few have some of the upper lateral teeth rather larger than the rest, and grooved on the hinder edge, the groove communicating with a gland placed on the side of the face, but their bite is seldom so dangerous as that of the eminently poisonous snakes. They are divided into three families.

The family of COLUBRIDÆ, (Cases 9 to 17,) which contains more than half of the species of Snakes, are characterized by having the belly covered with broad cross plates, like the Poisonous Serpents. Their tail is elongated and conical. Such of them as live on the ground and take to the water for protection, or to catch their food, have generally a cylindrical form, and a tail scarcely as long as the body; sometimes the head is large, and the scales are placed in longitudinal series, as in *Coronella*, *Lycodon*, *Tropidonotus*, &c. Others differ in having a smaller head, smooth scales, and a small frontal plate, as *Calamaria*, *Bungarus*, and the Coral Snakes (*Elaps*); the latter are often marked with alternate black and bright coloured bands, as in *Elaps corallinus*; and the Flat-tailed Coral Snake (*Platurus*) found in the Indian Seas, differs from the others by its tail being flattened like the Sea-Snakes. Some of these, as the Spectacle Snake or *Naja*, and *Sepedon*, have a small head, and the scales placed in cross bands; the former have the faculty of dilating the skin of the neck, so as to form a kind of hood over the head. The Indian species have usually a yellow spot on the back of the neck, somewhat resembling a pair of spectacles. These snakes are used by the native jugglers in their exhibitions.

Those which live the greater part of their life on trees, and are thence called Tree-Snakes, (*Dendrophis*), are long and slender, and generally have the scales on the sides of the back narrow, and longer than those on the dorsal line; in some of these the end of the muzzle is lengthened out into an acute appendage (*Passerita*). The Bull-headed Snakes (*Dipsas*) resemble the Tree-Snakes in form, but the head is short and broad, the body compressed, and they have a series of larger scales down the back. In the last two groups some fangs are most commonly found intermingled with the teeth.

The family of Boas (BOIDÆ, Case 18) have usually a short body, with narrow plates on the abdomen, and a short conical tail, furnished with two short crooked spurs at its base. These spurs have lately been shewn to be analogous to the hinder legs of other reptiles. The eyes and nostrils are lateral, the former have an elongated oval pupil, and the tail is conical and prehensile. The Boas are not venomous; they kill their prey by crushing it between the folds of the body, generally,

at the same time, twisting the end of the tail round a tree, or some other fixed point, in order to increase their power. The American kinds (*Boa*) have only a single row of plates beneath the tail; they vary greatly in respect to the structure of the scales on the head and lips. Some of the Indian species, as the Netted Boa, (*Boa Regia*,) have a single series of plates, whilst most of the other species have two rows (*Python*). The *Pythons* cover their eggs by laying on them rolled up in a spiral form, with the head in the centre. The *Eryx* differs from the other Boas in having a cylindrical body, a very short tail, and the head covered with scales similar to those of the back. Cuvier says that this genus has no spurs, but the specimen in the British Museum shews them distinctly.

The family of Sea-Snakes (HYDRIDÆ, Case 19) are easily known by their compressed form, narrow scale-like ventral shields, and vertically flattened tail. Their hinder limbs are not developed. The eyes and nostrils are vertical and the pupil round. These reptiles, which are peculiar to the seas of Asia and New Holland, are in some degree poisonous, many of the species having small fangs, dispersed amongst the true teeth. Some have a small head, and the body covered with scales, (*Hydrus*); the others have a large head and broad neck, and the body covered with embedded square plates, placed in longitudinal series, as *Pelamis*. The *Achrochordus* has the habits and many of the characters of the Sea-Snakes; but its body and head are covered with rough granular scales, and its tail is conical. It is found in the rice-fields of India. The *Chersydrus* has the scales of the *Achrochordus* but the tail is compressed, as in the other Sea-Snakes. The *Homalopses* have the narrow belly plates, the form and scales of the *Boæ*, but they are destitute of spurs, and have the nostrils and marine habits of the Sea-Snakes; and they are generally slate-coloured. Some of the Sea-snakes grow to a very large size, they sleep on the shores curled up, and are sometimes found asleep on the surface of the calm tropical seas.

II. The shielded Reptiles, CATAPHRACTA, (Cases 20 to 24) have the body covered with square imbedded shields, and have the tympanic bones sunk in the base of the solid hard bony skull; the vent is roundish, or linear and plaited, and the generative organs are usually simple. They comprise the Tortoises, (*Chelonians*), *Emydosauri*, and *Amphisbenians*.

The Tortoises (CHELONIANS, Cases 20 to 33) are peculiar for having all the muscles of the body placed within the thorax, out of the front and hinder part of which the head, limbs, and tail are exerted, as out of a case. This case is formed of the dilated back bone, ribs, and breast bones. When the animal is first born, these bones are separate from each other, as in the other Vertebrata, but as they grow, they gradually enlarge, and approximate, and at length are united together by a toothed suture, until they form a very substantial protection to the body. They are divided into families, according to the form of their feet, which vary with the habits of the animals.

Those which live on land (TESTUDINIDÆ, Case 20) have club-shaped feet, and very solid, convex shells, with a single marginal caudal plate. These live chiefly on vegetable substances, and bury themselves in the ground during the winter: their eggs, some of which are exhibited, are of a globular form. These animals are often used as food, especially

by sailors, who procure them from the Gallapagos, where they have been lately introduced, and have increased very rapidly.

In most of the genera, as *Testudo*, *Homopus*, and *Chersina*, the thorax and sternum are solid. The two former have twelve sternal shields. *Testudo* has five toes on the fore and four on the hinder feet; the *Homopi* have four toes on each foot. The *Chersinæ* have the same number of toes as the *Testudines*, but have only a single shield in the front of the sternum. The *Kinixys* have the hinder part of the thorax moveable, and the inguinal plates very large, and the *Pyxes* are like round tortoises, but the front part of the sternum is moveable like the lid of a box. The caudal plates of the recently hatched specimens are divided.

The Tortoises which live in fresh water have a more depressed shell; their feet are expanded and webbed between the toes, and the latter are furnished with sharp claws. They are divided into three families.

The first of which, the Terrapins, (EMYDÆ, Cases 21, 22) have eleven or twelve horny plates on the breast-bone or sternum, and withdraw their head and neck between the shells; their pelvis is only attached to the vertebra. Most of the genera have a moderately sized head and tail, and the suture between the thorax and sternum simple; some of them have a solid sternum truncated in front and niched behind, and the sternum, which has twelve plates, is united to the thorax by a bony suture, as the genera *Geoemyda*, which have short toes; *Emys*, which have elongated longly clawed toes. *Tetraonyx* differs from the latter in only having four toes on the fore feet, and *Cyclemys* in having some small scales on the sterno-costal suture, and *Malachemys* differs from all the preceding in having its head covered with a soft skin like the neck. The Box Terrapins, or *Cistudæ*, have the sternum, which is rounded at each end, divided by a central cross suture, and only attached to the thorax by a ligamentous suture. The *Kinosternons* have the sternum, which has only eleven plates, divided by two cross sutures, and its central part attached to the thorax by a bony symphysis. In the other genera the head is larger, and the suture between the thorax and sternum is covered by some peculiar plates, as the Crocodile Tortoise (*Chelydra*), which has a large crested tail and a cross-like sternum, acute before, covered with ten sternal plates, and with a broad one on each side; and *Platysternon*, which has a broad flat sternum truncated in front, covered with twelve plates; the sterno-costal suture covered with three additional plates, and the tail elongate, cylindrical, shielded. These tortoises are much used as food by the Americans and the natives of India. Amongst these is a monstrosity with two heads.

The second family (CHELYDÆ, Case 22) have an additional horny plate on the front of the sternum, and they bend the neck back under the side margin of the shell; their pelvis is attached to the back-bone and the hinder part of the thorax. In most of the genera the jaws are horny like the other Tortoises. In *Sternotherus*, the front lobe of the sternum is moveable and separated from the rest by a cross suture. In the other genera it is solid, and the lobes are broad. The *Chelodinæ* and *Hydromædusæ* have four toes on each foot; the former has the head covered with a hard skin and the intergular plate within the margin, and the latter has the skin of the head soft, and the intergular plates, like the rest of the genera, on the edge of the sternum. The *Pelomedusæ*

have five toes on each foot, and the head three-shielded. The *Hydraspes* and *Phrynops* have five toes to the front and four to the hinder feet; the former has the head covered with plates, and the latter covered with a soft skin, and it has only five vertical plates. The genus *Chelys* is peculiar for having the jaws covered with the fleshy lips; the nose is produced, and the lips and throat bearded. The fossil genus, *Megasternon*, has a solid sternum with marginal intergular plates, and is peculiar for having some additional plates over the sterno-costal suture, like *Platysternon* among the *Emyda*.

The third family or (TRIONYCIDÆ, Case 23) are peculiar from having the shell covered with a naked skin, and only three toes of each foot provided with claws. They, like the two preceding families, are strictly carnivorous, and eat their food in the water. Many large specimens of this genus are found in the East Indies, and are frequently seen preying on human bodies as they float down the Ganges. The genus *Emyda* is peculiar for the legs, when drawn up, being covered by a moveable flap placed on the sides of the chest, and the edge of the shell is bony. In the other genus, *Trionyx*, the legs are exposed and the margin of the shell is flexible.

The Marine Tortoises or Turtles (CHELONIADÆ, Case 23) are distinguished by their feet being compressed and fin-shaped; they live principally on fuci, sea-weeds, shells, and crustaceous animals. The Coriaceous Turtle (*Sphargis*), which differs from the other Turtles in the bones being covered with a continuous coriaceous skin, while in *Chelonia* it is covered with horny plates, like the other *Testudines*. Sometimes the edges of the plates are produced and imbricate over the others. These are the kinds most commonly used as food, and great quantities of one species (*Chelonia Midas*) are annually brought to England for that purpose. The horny plates of the Imbricated Turtle (*Chelonia imbricata*) afford the best sort of tortoise-shell.

The EMYDOSAURIANS (Case 24) have the appearance of gigantic lizards, but they differ from them in the body being covered with square bony plates placed in longitudinal lines, in the solidity and formation of their skull, and in the vent being longitudinal. They are only found in the warmer climates.

The Alligators are peculiar to America, and are distinguished from the Crocodiles, which are found both in the Old and New World, by their feet having the toes free, that is, unconnected by webs, and by the canine teeth of the lower jaw being received in pits in the upper; whereas, in the Crocodiles, they are received in a notch on its margin. The Gavials agree with the Crocodiles in regard to their teeth, but differ by the muzzle being very long and slender. Specimens of all the three genera are in the Collection. The upper jaw of these animals is generally, but erroneously, said to be moveable; the mistake having arisen from the lower jaw being much produced posteriorly.

The AMPHISBENIANS (Case 4) have a long cylindrical body covered with square imbedded plates, and have some relation to the *Cacilia*. They are equally blunt at both ends, which has led to the idea that they walk both backwards and forwards with the same facility,—hence their name. They are generally destitute of limbs; but the genus *Chirotes* is peculiar for having two small rudimentary front legs. Most of them have teeth placed on the inner edges of the jaw, but the

Trogonophides have them placed on the edge. They all live in ant-nests, and feed on those insects.

The following Table exhibits the arrangement of this Class at one view; the numbers refer to the Cases.

Class III.	Fam. 7. <i>Chirocolidæ</i> .	Fam. 13. <i>Aprasiadæ</i> , 5.	Trachydaetyla.
REPTILIA.	Heterodaetylus.	Brachymeles.	Basiliscus.
Sect. I. SQUAMATA.	Fam. 8. <i>Chamæsa- ridæ</i> , 4.	Aprasia.	Corythæolus.
Order I. SAURIA.	Chamæsauro.	Fam. 14. <i>Pygopi- dæ</i> , 5.	Ophyessa.
A. <i>Leptoglossæ</i> .	Fam 9. <i>Chalcidæ</i> .	a. Pygopus.	Platynotus.
Fam. 1. <i>Monitoridæ</i> .	Chalcid.	b. Delma.	Euyalius.
Psammosaurus, 1.	Microdaetylus.	Fam. 15. <i>Lialisi- dæ</i> , 5.	Læmanctus.
Monitor, 2.	Colobus.	Lialis.	Anolius.
Polydedalus, 2.	—	Fam. 16. <i>Acontia- dæ</i> , 5.	Daetyloa.
Empagusia, 3.	Ecleopus.	a. Nessia.	Draconura.
Hydrosaurus, 3.	Pentadaetylus. 1	b. Bipes (Scelotes).	Norops.
Fam. 2. <i>Heloder- midæ</i> .	Leposoma.	c. Acontias.	Acantholis.
Heloderma, 3.	Fam. 10. <i>Scincidæ</i> , 5.	d. Dibamus.	Polychrus.
Fam. 3. <i>Teidæ</i> , 4.	a. Scincus.	Typhline.	Hypsibatus.
Teius.	Sphenops.	Fam. 17. <i>Typhlop- sidæ</i> , 5.	Microlophus.
Ctenodon.	b. Celestus.	Typhlops.	Leiocephalus.
Acrantus.	Trachysaurus.	B. <i>Pachyglossæ</i> .	Strobilurus.
Ameiva.	Tropidophorus.	Fam. 18. <i>Geckotidæ</i> , 6.	Uranocentron.
Aporomera.	Egernia.	a. Platydaetylus.	Phrymaturus.
Cremidophorus.	Tiliqua.	Gecko.	Cyclurus.
Dicrodon.	Amphiglossus.	Ptychozoon.	Oplurus.
Centropyx.	Euprepes.	Tarentola.	Tropidurus.
Ada.	Eumeces.	Pachydaetylus.	Leiolæmus.
Crocodylurus.	Leiolopisma.	Phelsuma.	Pristinotus.
Custa.	Psammita.	Anoplus.	—
Callopiestes.	Cyclodus.	Gehyra.	Sceloporus.
Fam. 4. <i>Lacerti- nidæ</i> , 4.	Dasia.	Nautinus.	Tropidolepis.
Zootoca.	Gongylus.	Natya.	Phrynosoma.
Lacerta.	Plestrodon.	Cantinea.	Fam. 20. <i>Agamidæ</i> , 7.
Teira.	Adaria.	b. Thecadaetylus.	a. Draco.
Eremias.	Herinea.	Phyllodaetylus.	Dracunculus.
Acanthodaetylus.	c. Riopa.	Diplo-daetylus.	b. Chlamydosaurus.
Scapteira.	Lygosoma.	Ptyodaetylus.	Lophura.
Meroles.	Chiamela.	Uroplates.	Physiathus.
Mesulina.	Tetra-daetylus.	Peropus.	Lyriocephalus.
Calrita.	Seps.	Hemidaetylus.	Otocryptes.
Algira.	Siaphos.	Crossurus.	Ceratophora.
Psammodromus.	Heteromeles.	d. Eublepharis.	Sitana.
Ophiops.	Ristella.	Stenodaetylus.	Goniocephalus.
Calosaura.	Hagria.	Pristurus.	Calotes.
Fam. 5. <i>Zonuridæ</i> , 4.	Tridaetylus.	e. Tolarenta.	Bronchocele.
a. Zonurus.	Ronia.	f. Cyrtodaetylus.	Acanthosaura.
Tribolonotus.	d. Ophiodes.	Goniodaetylus.	c. Agama.
Cicigna.	e. Anguis.	Phyllurus.	Trapelus.
Tetra-daetylus.	Ophiomorus.	Fam. 19. <i>Iguanidæ</i> , 6.	Stellio.
Tachydromus.	Siguana.	a. Corythophanes.	Moloch.
Caitia.	Stenostoma.	Chamæleopsis.	d. Phrynocephalus.
b. Abronia.	Dorfia.	b. Iguana.	Megalochilus.
Gerrhonotus.	Fam. 11. <i>Gymnoph- thalmidæ</i> , 5.	Metoceros.	e. Grammatophora.
Barisia.	Microlepis.	c. Amblyrhynchus.	Uromastyx.
Elgaria.	Ablepharis.	d. Brachylophus.	Leiolepis.
Pseudopus.	Gymnophthalmus.	Cyclura.	Fam. 21. <i>Chameleo- nidæ</i> , 7.
Ophisaurus.	Cryptoblepharis.	Order II. OPHIDIA.	Chameleo.
Fam. 6. <i>Cercosau- ridæ</i> .	Lerista.	A. <i>Venenosa</i> , 8.	
Cercosaurus.	Cuminia.	Fam. 1. <i>Crotalidæ</i> , 8.	
	Fam. 12. <i>Rhodonidæ</i> , 5.	a. Crotalus.	
	Rhodona.	Uropophus.	
	Soridia.	Caudisona.	
	Chilomeles.	b. Cenchrus	

c. <i>Trigonocephalus</i> .	Hamadryas.	d. <i>Homalopsis</i> .	<i>Emyda</i> .
d. <i>Bothrops</i> .	Xenodon.	Helicops.	Fam. 5. <i>Chelonidæ</i> , 23.
Trimesurus.	d. <i>Dendrophis</i> .	Hydrops.	Sphargis.
<i>Tropidolæmus</i> .	Dryophis.	Hypsirina.	Chelonia.
Atropos.	Langaha.	Sect. II. CATA-	
Megara.	Telescopus.	PHRACTA.	
e. <i>Lachesis</i> .	Bucephala.	Ord. III. CHELONIA.	Order IV. EMYDO-
Fam. 2. <i>Viperidæ</i> , 8.	c. <i>Dipsas</i> .		SAURI, 1 & 2.
a. <i>Cerastes</i> .	Fam. 4. <i>Boidæ</i> , 18.	Fam. 1. <i>Testudini-</i>	
Echis.		<i>dæ</i> , 20.	Fam. <i>Crocodilidæ</i> , 24.
b. <i>Daboia</i> .	a. <i>Boa</i> .	Testudo.	Gavialis.
Clotho.	Eunectes.	Chersina.	Crocodilus.
c. <i>Sepedon</i> .	Epicrates.	Kinyxis.	Alligator.
d. <i>Pelias</i> .	Xiphosoma.	Pyxis.	Caiman.
<i>Vipera</i> .	Helionomus.	Fam. 2. <i>Emydæ</i> , 21.	
e. <i>Acanthophis</i> .	b. <i>Python</i> .	a. <i>Geoemyda</i> .	Order V. AMPHIS-
B. <i>Innocua</i> .	Liasis.	Emys.	BÆNIA, 24.
Fam. 3. <i>Colubridæ</i> ,	c. <i>Gongylophis</i> .	Cyclemys.	Fam. 1. <i>Trogono-</i>
9 to 17.	Eryx.	Malaclemys.	<i>phidæ</i> .
a. <i>Coronella</i> .	d. <i>Ilysia</i> .	b. <i>Cistuda</i> .	Trogonophis.
<i>Lycodon</i> .	<i>Cylindrophis</i> .	c. <i>Kinosternon</i> .	
Herpetodryas.	Fam. 5. <i>Hybridæ</i> , 19.	Staurotypus.	Fam. 2. <i>Chirotidæ</i> .
Coluber.	a. <i>Pelamis</i> .	d. <i>Chelydra</i> , 22.	Chirotes.
Psammophis.	Lapemis.	e. <i>Platysternon</i> , 22.	
<i>Tropidonotus</i> .	b. <i>Hydrus</i> .	Fam. 3. <i>Chelydæ</i> , 22.	Fam. 3. <i>Amphisbæ-</i>
<i>Heterodon</i> .	Liopala.	Sternotherus.	<i>nadæ</i> .
b. <i>Calamaria</i> .	Aturia.	Chelodina.	a. <i>Amphisbæna</i> .
Rhinostoma.	Hydrophis.	Hydraspis.	Anops.
Elaps.	c. <i>Acrochordus</i> .	Chelys.	Blanus.
Bungarus.	Chersydrus.	Fam. 4. <i>Trionycidæ</i> .	b. <i>Lepidosternon</i> .
Platura.	Erpeton.	Trionyx.	Cephalopeltis.
e. <i>Naja</i> .	Bitia.		

The BATRACHIANS (Cases 25 and 26) agree with the reptiles in so many of their characters, that they have been very generally believed to be only an order of that class; they chiefly differ from them in their skin being destitute of scales, their toes without any true claws, and in having two occipital condyles. Their heart has only one ventricle and a simple auricle, and the blood is cold. They are oviparous; some few are ovoviviparous. This class is divided into sections, according to the change of form which the animals undergo before they arrive at perfection, containing five orders.

The animals of the first section (called *Mutabilia*) undergo a distinct transformation, the young animals being of a fish-like form, and furnished with external gills, which eventually fall off when the limbs are developed, not leaving any holes or slit on the side of the neck. The bones of their skull are only united by membranes. Their eggs, which are laid in water and covered with a membrane, are generally fecundated and enlarge in size after they are deposited. The young usually undergo a transformation before they arrive at maturity, and generally have external gills, which they commonly lose when they change their external form, but some few, as the *Sirens*, retain them through life.

This section contains two orders, the *Anoures* and the *Urodeles*, or Tailless and Tailed Batrachians.

The Tailless Batrachians (ANOURES) are distinguished by the adults having a broad short depressed body, quite destitute of any tail. Their four limbs are very unequal in length and strength, the hinder pair being much the longest. Their skin is quite naked, and the orifice of their cloaca is contracted into a rounded form. Their head is large and flat, the mouth very large, without any teeth in the lower jaw. They are

furnished with two eyelids; their eggs are generally united together into a mucilaginous cord. The hind legs of the young animal appear before the front. The young before their change feed on vegetables, and the adults on small living animals.

This order is divided into two sections, the first (*Phaneroglossæ*) having a distinct and exsertile tongue, containing the family of Tree Frogs (*HYLADÆ*), Frogs (*RANIDÆ*), and the Toads (*BUFONIDÆ*). The second, which only contains the family of Tedons (*PIPRIDÆ*), has been called *Phrynaglossæ* because they have scarcely any appearance of a tongue.

The family of Tree Frogs (*HYLADÆ*, Case) are peculiar for having the end of their toes dilated into small pads, which enables them to attach themselves to, and to walk with their body suspended on, the under sides of smooth bodies, they thus attach themselves to the under sides of the smoothest leaves, and fix themselves directly that they alight on any body; and, like many reptiles, they have the faculty of changing the colour of their skin, which often enables them to elude the vigilance of their enemies. The upper jaw is toothed like the Frogs. They are most common in tropical America, a few are found in Asia and Polynesia, only two or three in Africa, and a single species is found in Europe. They are divided into many genera by the form of the tongue, the disposition of the teeth, and the form of the head. In *Polypedates*, *Racophora*, *Lemnodytes*, and *Ixale*, the tongue is forked; in *Acris* and *Eucnemis* it is cordate, and in *Micrhylla* it is long and ribbon-shaped. The toes of *Crossodactylus* are not webbed, but are fringed with a free membrane on each side. The genera *Phyllobatus*, *Hylodus*, and *Phyllomedusa* also have free toes, and the latter have the first finger and the first two toes opposable to the others.

The family of Frogs (*RANIDÆ*, Case) have the upper jaw furnished with teeth, like the Tree Frogs, but the ends of their toes are not, or scarcely, dilated; they have always four fingers and five toes, which are usually united by a web; there generally exists at the base of the first finger a more or less distinct prominence, which proves on dissection to be the rudiment of a thumb, and at the outer edge of the ankle there is generally a tubercle, which in some genera, as *Pelobates* and *Scaphiopes*, is expanded into a large oval disk with free edges; this tubercle is produced by a bone analogous to the first cuneiform bone in the human ankle, and is not, as some have supposed, the rudiment of a sixth toe. They are generally quite smooth beneath, and more or less tubercular or glandular on the back and sides. Tschudi, who has particularly studied these animals, has divided the genera into four smaller groups, as the *Cystignathus*, which have an elongated vaulted head, and long free toes. The Frogs (*Rana*) differ from the former in the toes being more or less webbed; some of these, as the *Pseudis*, have the fingers opposable to each other; some have the drum of the ear hid under the skin, as *Cycloramphæ* and *Discoglossus*. The *Peltocephali* are peculiar for having the bones of their skull only covered with a thin hard skin. The Horned Toads, as the genera *Ceratophys* and *Megalophys*, have a very broad angular head, obliquely prolonged in front, and the upper part of the upper eyelid produced into a point. The Swollen Frogs have a rounder head and short body and limbs; their skin is generally warty like the toad's, but the *Pelobates* are smooth, and have long limbs; the drum of the ear of *Pelobates*, *Pyxicephalus*, and

Bombinator are hid under the skin ; in *Alytes* and *Pelodytes* they are exposed. The genera *Scaphiopus*, *Pyxicephalus*, and *Pelobates* have a hard horny disk to the hind feet ; in the former the toes are webbed, and in the two latter they are free. The *Oxyglossi* are peculiar for having no teeth on the palate.

The family of Toads (BUFONIDÆ, Case) are only to be distinguished from the Frogs by both jaws being equally deprived of teeth, and their palate is usually equally toothless. They are generally nocturnal, living in holes and under stones, and coming out at night to search for their food, which chiefly consists of insects. Their skin is generally warty. Most of them have a well developed tubercle at the hinder edge of the hind feet, which is produced by a prolongation of one of the wedge-shaped ankle bones. The genera *Dendrobate* and *Hylædactylus* are peculiar for having the end of their toes dilated like the Tree Frogs ; the former is slender, and resembles them in shape, and has the drum of the ear visible, the latter is smaller, like the Swollen Toads, and have the drum hidden. The Toad (*Bufo*) has the drum of the ear exposed, while in all the following genera it is hidden under the skin. The *Brachacephyles* are peculiar for having the back armed with a long dorsal shield. The *Rhinodermus* has the nose ornamented with beards. The *Engystomes* and the *Breviceps* have the toes free. The *Rhinophrynes* and *Atelopes* have only four toes on the hind feet. The *Plectropodes* and *Uperodontes* have two large oblong tubercles on the hind feet, and *Phryniscus* a small round one.

The second section of this order, or *Phrynoglossæ*, have no distinct tongue ; it consists of a single family, (*Pipidæ*,) one genus of which (*Pipa*) is peculiar for having the eggs hatched in holes in the skin of the back of the male.

The second order, or Tailed Batrachians, (URODELES,) have an elongated body, with a more or less elongated tail. They consist of the single family of Salamanders (SALAMANDRIDÆ, Case 26.)

The second section, or *Immutabilia*, do not undergo any change during the period of their lives ; they offer several variations in the form of their respiratory organs.

The *Batrachophiliæ*, or family of CÆCILIADÆ, have no distinct gills, or they only have them at a very early period of their lives ; they are elongated, snake-like, and destitute of any limbs ; they are said to be viviparous. (Case 26.)

The *Cryptobranchiæ*, or family of AMPHIUMIDÆ, have no gills, but they have a slit in the side of the neck where the gills are usually placed. (Case 26.)

The *Perennibranchiæ*, on the contrary, have distinct external gills, which they bear during the whole period of their lives, as the *Axoloth*, *Menobrachus*, *Proteus*, and *Siren*. In Case 26 is a wax model of the *Siren*, shewing its appearance when alive.

1. MUTABILIA.

Ord. 1. ANOURA.

Fam. 1. *Hyladæ*.a. *Litoria*.b. *Acris*.*Lemnodytes*.*Polypedates*.*Orchestes*.*Ixalus*.*Eucnemis*.*Rhacophorus*.*Trachycephalus*.*Hyla*.*Michryla*.*Cornufer*.*Hylodes*.*Phyllomedusa*.*Elosia*.*Crossodactylus*.*Phyllobates*.Fam. 2. *Ranidæ*.a. *Cystignathus*.*Crinia*.*Leipherus*.b. *Rana*.*Discoglossus*.*Pseudis*.*Pedicephalus*.*Calyptocephalus*.*Cycloramphus*.*Leptobranchium*.c. *Ceratophys*.*Phrynoceros*.

Megalophys.	Telmatobius.	Ord. II. URODELES.	Order IV. CRYPTOBRANCHIA.
Asterophys.	Leptobrachium.	Fam. 5. <i>Salamandridæ</i> , 26.	Fam. 7. <i>Amphiumidæ</i> , 26.
d. Telmatobius.	Asterophys.	Salamandra.	Amphiuma.
Pelobates.	Fam. 3. <i>Bufo</i> nidæ.	Onycopus.	Menopoma.
Scaphiopus.	Dendrobate.	Salamandrina.	Order V. PERENNOBRACHIA.
Pyxicephalus.	Rhinoderma.	Tritro.	
Alytes.	Atelope.	Lissotriton.	
Pelodytes.	Bufo.	II. IMMUTABILIA.	Fam. 8. <i>Siredonidæ</i> , 26
Bombinator.	Phrynisceus.	Order III.	Axoloth, 26.
Pleurodema.	Hylædactylus.	BATRACHOPHILIA.	Fam. 9. <i>Menobran-</i> <i>chidæ</i> , 26.
Hyadactyla.	Plectropode.	Fam. 6. <i>Cæcilidæ</i> , 26.	Menobran-
Oxyglossus.	Engystoma.	Cæcilia.	Fam. 10. <i>Proteidæ</i> , 26.
Sclerophys.	Uperodonta.	Siphonops.	Proteus, 26.
Kalophrynus.	Breviceps.	Epicrium.	Pseudobran-
Systema.	Rhinophryne.	Rhinatrema.	Siren, 26.
Stenocephalus.	Fam. 4. <i>Pipidæ</i> .		
Pelodytes.	Dactylethra.		
Alytes.	Pipa.		
Scaphiops.			
Pelobates.			
Bombinator.			

The Table Cases in this and the next Rooms contain the Collection of RADIATED ANIMALS, (*Centroniæ*, Pallas,) which are so called from all the parts of their body and members being disposed in a radiated form, which often gives them the shape of the flowers of plants.

The pores of the skin of some kinds, and the whole of the cellular substance of others, is often so filled with calcareous matter, as to leave, when the animal is dead or removed, a hard case or a stony coral; the latter often representing, in a very perfect manner, all the more important characters of the animal. It is the hard parts, or skeletons, as they may be called, of these animals, which alone can be shewn with any effect in collections, but whenever it is possible, they should be studied in connexion with the animals which form them, as the animal alone affords the proper characters for their classification, and the study of the animal and coral together, enables the student to understand, in other cases, by the examination of the coral alone, what was the probable structure of the animal that formed it.

The Table Cases of this ROOM contain the hard parts of the ECHINODERMATA, so called from their body being covered with a hard coat formed of variously shaped calcareous pieces imbedded in the surface of the skin. These pieces are formed by the earthy particles being deposited round certain definite spots in the skin, and as they are developed, they assume a definite arrangement into certain distinct shapes peculiar to the different kinds; although these are strongly united together by the skin, and have a kind of organization during the life of the animal, they may easily be separated from each other after death, and then appear like separate bones. This structure allows the animal to increase both the size and the number of the pieces that compose its protecting case as the body grows, and also to repair, by the deposition of fresh calcareous particles on the skin of the healed part, any injury which the animal may have received from external accidents during its life. (See such a specimen, Case 3.)

They are all marine, and live on animal food. The free kinds move about with their mouths beneath, and the attached ones are affixed by their backs with their mouth above, to enable their limbs to bring the food within its reach.

The First Class, DITREMATA, have a distinct digestive canal, furnished with a mouth and vent, containing the *Echinidæ* and *Holothurida*.

The ECHINIDÆ, or Sea Eggs (Cases Nos. 1 to 10). These are covered with a hard case, formed of 40 perpendicular bands of square or six-sided pieces, sunk in the substance of the skin, and furnished externally with numerous spines, affixed by muscles on hemispherical tubercles, which allow the spines to move in all directions, protecting the animals from their enemies and enabling them to bury themselves in the sand on the shore when they are left by the retiring tide.

These spines easily fall off when the animal is dead, and the greater part of the specimens exhibited are destitute of them. Ten pairs of the forty bands of pieces of which the cases are formed, alternating with the ten other pairs, are pierced with minute double pores, through which are sent out small filaments with dilated ends, which enable the animals to anchor themselves to marine bodies. These animals have two separate openings to their digestive canal.

The more globular kinds have the mouth and vent placed opposite one another, in the centre of the upper and lower surfaces, with the bands of pores (or *ambulacra*, as they are called, from their fancied resemblance to the walks in a garden) extending in five pairs of lines from the one to the other; the mouth is armed with very complicated jaws, furnished with five rather projecting teeth. (See Case 3.) These shells are generally covered with large spines.

The Diadems (CIDARIDÆ, Case 1) have the tubercles on which the spines are affixed pierced with a central pit.

The ECHINIDÆ (Cases 2 to 6) have, on the contrary, simple rounded tubercles. The spines of most of the species of this family are equal-sized, but in some, especially such as are of an oblong shape, as *Colobocentrus*, the spines are large and club-shaped, and in others, as *Heterocentrus*, they are very short and truncated, forming in the mass, a smooth surface somewhat resembling a tessellated pavement. These animals are much sought after as food during the latter part of the summer, at which time they are almost filled with eggs.

The other *Echinidæ* have the vent placed on the side of the body.

The family of SCUTELLIDÆ (Cases 7, 8) have the rounded mouth in or near the centre of the under side. Their shell is covered with very minute equal-sized spines, and the pores form arched series like the petals of a flower, on the middle of the back. Their jaws are complicated, triangular, inclosed, and formed for crushing the food. The shells of these animals are strengthened by columns of calcareous matter which are deposited in the cavities between the folds of the internal organs. Some species are convex, as *Echinanthus*, but they are mostly very flat and depressed, as the *Scutella*. Many of the latter are pierced with holes in the disk, or are lobed on the edge.

The family of GALERITIDÆ (Case 9) resemble the former family in the position of the mouth and vent, and in being covered with very small spines, but the lines of pores extend from the middle of the back to the mouth; they are sometimes interrupted at the margin, but then they are to be seen again forming five distinct petal-like impressions on the under side near the edge of the mouth. The cavity of the shell is

simple, and their jaws are small or only rudimentary. Only a few kinds are now found in a recent state, but the extinct species are very numerous, forming several very distinct genera. The vent in some of these is above the hinder margin, but it is never in the middle of the back.

The family of SPATANGIDÆ (Cases 9, 10) differ from all the others in the mouth being transverse, and more or less in front of the middle of the under side of the shell. They are destitute of jaws; the series of pores are generally interrupted, but they form petal-like rows, both on the back and near the mouth. The shell is generally heart-shaped, with a groove from the crown to the mouth in front, and they are sometimes furnished with long slender as well as the usual small short spines. The cases or shells of these animals are formed of the same number of bands as the other Sea Eggs, but the bands are of unequal breadth, as is sometimes the case with deformed specimens of the hemispherical *Echini*. (See specimen in Case 2.)

The HOLOTHURIDA, or Sea Cucumbers, have many characters in common with the *Echinidæ*, but their skin is only hardened with irregular scale-like or oblong bones; their mouth is in general surrounded with five or ten plumose appendages. Most of them are furnished with rows of pores similar to, and for the same purpose as, the ambulacra of the *Echinidæ*; in some, as the *Holothuria*, they form regular lines from the mouth to the vent; in others, as the *Cuvieria*, (Case 10,) they are all crowded on the under surface of the body, which is in general flat.

The family of SIPHUNCULIDÆ have many characters in common with those animals, but they are destitute of any ambulacra.

The *Holothuridæ* and *Siphunculidæ* are eaten; the *Trepang*, a common name of the various species of the former genus, is much sought after by the Chinese to flavour their soup. Also see the specimens of this order in the Upright Cases in the Fifth Room of this Gallery.

The HYPOSTOMATA, (Cases 11—24,) differ from the former class in the body being expanded into rays or lobed, and in having a bag-like stomach, with only a single aperture through which the food is received, and the indigestible part rejected. It contains the *Asteroida* and *Ophiurida*.

The true STAR-FISHES, or ASTEROIDA, (Cases 11—18,) have the body expanded into arms of the same structure as itself, and the under sides of the arms are marked with grooves radiating from the centre, pierced with two or four rows of holes, through which are emitted filaments with expanded tips, which the animal uses in locomotion, and they have a wart on the back, the use of which is unknown. The *Asteriæ* differ greatly from one another both in texture and form. Most of the species have five rays, but varieties are sometimes met with which have only four rays, one of which is in Case 17. Some species have eight, others nine, and others again from twelve to thirty rays. Most of the species have the faculty of reproducing the arms, or such parts of them as may be accidentally broken off; and if an entire arm be separated, provided a part of the body be attached to it, other arms are reproduced, and a fresh perfect animal is formed. Some specimens illustrative of these facts are in the Case.

The family of Typical Star-Fishes (ASTERIADÆ, Cases 11 and 12) have four series of holes and tentacles in each of the arm-grooves. Most of the kinds have only two series of pores in each groove; they are divided into groups of genera, according to the structure of the hard particles which form the support of the body, and which generally agree with the external form of the body.

The family of ASTROPECTENIDÆ (Cases 13 and 14) have the back of the rays thin and netted, with numerous tubercles at the junction of each of the little bones, which are covered at their tips with numerous small moveable spines. They are the most beautiful of the order.

The family of PENTACERIDÆ (Cases 15—17) have the skeleton formed of large roundish tubercles, the skin between which is pierced with small holes; some of these have a convex back and triangular arms, as the *Pentaceros*; others are flat above and beneath, with five broad, short rays edged with larger pieces, as *Goniaster*; many of these have their back studded with conical tubercles, which enlarge in size as the bone on which they are placed increases; these tubercles sometimes fall off as the animal increases in size, and are easily separated, leaving a flat scar when the specimen is dead. Some of them, as the *Dactyloaster*, (Case 17,) have elongated cylindrical arms.

The last family, or the ASTERINIDÆ, have the skeleton formed of compressed pieces, placed one over the other like the tiles on a house; they always have a thin margin. They are generally flat and pentangular, but some have a convex back, and a few are many rayed. (Case 18.)

The LIZARD-TAILED STARFISHES, OPHIURIDA, (Cases 19—24,) have a suborbicular depressed body with five cylindrical, jointed, very flexible arms, which are sometimes repeatedly divided into branches; the arms are furnished with a series of small pores, along each side of their under or oral surface, and they have a lunate hole on each side of the base of their arms. They have no dorsal warts.

The family of OPHIURIDÆ have an orbicular body covered with spines or scales, and the arms, which are always simple, are furnished with cross series of spines on the sides. In some, (*Ophiosoma*, Cases 19, 20,) the spines of the arms are long and expanded, in others, as *Ophiura*, they are short and appressed. Most of the species have five rays, there is one in the collection (Case 20) with only four, and some have been described as having eight, but they are only monstrosities.

The family of Gorgon heads, (EURYALIDÆ,) on the contrary, have the body covered with a leathery skin and strengthened behind with five pairs of radiating ribs. The arms are compressed and furnished with a series of pores on each side; the outer side of each pore is partly covered with a bundle of small spines arising from a common base. The arms of the *Astrophyton* (Cases 22 and 23) are round and repeatedly branched so as to end in very small flexible filaments, by which the animal attaches itself to marine bodies and strains its food from the surrounding water. The *Euryale* has square arms only branched at the tip. The *Natalia* has round simple tubercular ringed arms. The *Lasपालia* only differs from the former in having elongated simple arms covered with a crustaceous coat.

The remainder of the ECHINODERMATA have a purse-like body, and the middle of their back is produced into an elongated stem, by which they are often attached to other bodies, or if they are free, the

middle of their back is furnished with a bunch of hooked fibres, by which they attach themselves to corals, sea-weeds, &c.; and some of those which are free in their adult state are attached by a peduncle when very young.

The **Class CRINOIDEA** (Case 24) are furnished with five arms having a series of processes on each side like a feather. The arms are generally forked at their base, and often repeatedly subdivided. Their body is surrounded with hard shelly plates. One recent genus, *Comatula*, is free, but the other *Pentacrinites*, and many of the fossil genera, as *Encrinites* and *Poteriocrinites*, &c., have an elongated peduncle, which is furnished with claspers, like those on the back of the *Comatula*.

The **Class SPHÆRONOIDA** are only found fossil and like the former, but they have no arms, and the body is more or less spherical, with a large aperture closed by five valves on the side of the vertex, between it and the costals, and they are only marked with scattered pores.

The **Class BLASTEROIDA** (Case 24) appear to be nearly allied to the *Crinoidea*, but they chiefly differ in having no arms, and in their body being marked with five double series of holes like the ambulacra of Sea Eggs, as the genera *Pentremites* and *Orbitremites*. They are only found in a fossil state.

The following List will show at one view the arrangement of the Radiated Animals, and the Numbers indicate the Table Cases of this Room in which the genera in the collection are placed.

Sub-kingdom.	Stomopneustes, 4.	Fam. 5. <i>Spatangidæ</i> .	Class II.
CENTRONIÆ.	Texopneustes, 4.	Hemipneustes.	HYPOSTOMATA
	Echinometra, 5.	Micraster, 9.	Ord. I. ASTEROIDA.
Section I.	Colobocentrus, 6.	Brissus, 9.	Fam. 1. <i>Asteriada.</i>
ECHINODERMATA.	Heterocentrus, 6.	Brissopsis.	Asterias, 11, 12.
	Fam. 3. <i>Scutellidæ.</i>	Ova, 10.	Heliaster, 12.
Class I.	Echinanthus, 7.	Toxaster.	Tonia, 12.
DITREMATA.	Lagana, 7.	Amphidetus, 10.	
Order I. ECHINIDA.	Echinocyamus, 7.	Spatangus, 10.	Fam. 2. <i>Astropecti-</i>
Fam. 1. <i>Cidaridæ.</i>	Fibularia, 7.	Echinocardium, 10.	<i>nidæ.</i>
	Echinarachnius, 8.	Echinoneus, 10.	Nauricia, 13.
Cidaris, Case 1.	Echinodiscus, 3.	Pachygaster.	Astropecten, 13, 14.
Acrocidaris.	Encope.	Echinocorys, 10.	Luidia, 14.
Pedina.	Amphiope.		Petalaster, 14.
Tetragramma.	Heliophora.	Order II. HOLOTHU-	Solaster, 14.
Acrosalenia.	Lobophora.	RIDA.	Polyaster, 14.
Echinopsis.	Fam. 4. <i>Galeritidæ.</i>	Fam. 1. <i>Holothuridæ.</i>	Henricia, 14.
Hemicidaris.	Echinolampas, 9.	Holothuria.	
Diadema, 1.	Conoclypeus.	Trepang.	Fam. 3. <i>Pentaceridæ.</i>
Astropyga.	Pygurus.	Mulleria.	Culeita.
Fam. 2. <i>Echinidæ.</i>	Cassidulus.	Bohadschia.	Pentaceros, 15.
Cyphosoma.	Amblypygus.	Fam. 2. <i>Cuvieridæ.</i>	Stellaster, 16.
Salentia, 2.	Clypeus.	Cuvieria, 10.	Hippoaster, 16.
Peltastes.	Nucleolites.	Psolus.	Calleaster, 16.
Goniopygus.	Echinobrissus, 9.	Fam. 3. <i>Synaptidæ.</i>	Goniaster, 16.
Goniophorus.	Catopygus.	Synapses.	Echinaster, 19.
Acropeltis.	Pygorhynchus.	Chirodota.	Gymnasteria, 17.
Arbacia, 2.	Hyboclypeus.	Thyone.	Dactylosaster, 17.
Echinus, 2, 3, 4.	Galerites, 9.	Fam. 4. <i>Pentactidæ.</i>	Stellonia, 17.
Hippooce, 4.	Pyrina.	Pentacta.	Cribrella, 17.
Holopneustes, 4.	Globator.	Fam. 5. <i>Siphuncu-</i>	Linckia, 17.
Temnopleurus, 4.	Nucleopygus.	<i>lidæ.</i>	
Pleurocturus, 4.	Pygaster.	Fam. 4. <i>Asterinidæ.</i>	Palmpipes, 18.
Microcyphus, 4.	Discoidea.	Asterina, 18.	
Amblypneustes, 4.	Holaster.		
Talmacia, 4.	Disaster.	Siphunculus, 10.	

Ord. II. OPHIURIDA. Natalia, 24.	Holopus, &c.	Hemicosmites.
Fam. 1. Ophiuridæ. Laspalia, 24.	Fam. 3.	Cryptocrinites.
Ophiosoma, 19, 20. <i>ms</i> Class III.	Cyathocrinitidæ.	<i>ms</i> Class V.
Ophiura, 20.	Cyathocrinites.	BLASTEROIDA.
Rosula, 20.	Marsupites.	Fam. 1. Pentremi-
Aspidura.	Fam. 4. Asteroco-	tidæ.
Ophiurella, 20.	midæ.	Pentremites, 24.
Anoura.	Asterocoma.	Orbitremites.
Fam. 2. Euryalidæ.	<i>ms</i> Class IV.	[Continued at p.
Astrophyton, 22, 23.	Sphæronoida.	134.]
Euryale, 24.	Sphæronites.	

THIRD ROOM.

The Upright Cases round this Room contain, for the present, the Handed and Glirine Mammalia, and the Table Cases the continuation of the arrangement of the Radiated Animals, those which form corals.

The first order of MAMMALIA, called PRIMATES, because they are considered as the most perfect animals, is placed in this room. They are characterized by having distinct and well defined cutting, canine, and grinding teeth, placed in a regular uninterrupted series. The front, and most generally the hinder extremities, are in the shape of a hand, having the thumb placed lower down than the rest of the fingers, so that it can be opposed to them, which enables the animals to grasp bodies with great security, a matter of great importance in climbing animals. Their teats are placed on their chest, and the male organ is free and pendulous. Their brain is much more developed than in most other beasts. Linnæus and some other naturalists have included the genus *Homo* (Man) in this order. But a prominent zoological character which separates this genus from the rest of the animals which are referred to the order, is in the fore limbs alone being furnished with an opposable thumb, while the great toes of the hinder limbs are placed on the same level as the other toes, and are not opposable to them.

The family of APES (*Simiada*, Cases 1—23) have the same number (thirty-two) of teeth as man, viz. two cutting teeth, one canine, and five grinders, on each side of the upper and the lower jaw. The fore and hind feet are furnished with an opposable thumb, the septum between the nostrils is thin, and the rump is generally protected by a hard naked skin; they are usually furnished with a tail, and they have pouches on the sides of the mouth between the cheeks and the jaws, in which they place their food for security. They are entirely confined to the warmer parts of the Old World, especially Asia and Africa, a single species alone having been naturalized in Europe on the Rock of Gibraltar.

The true Apes (*Simiana*, Cases ,) have no tail, and bear the nearest resemblance to the human form, as the Pongo or Chimpanzee (*Troglodytes*) of Tropical Africa; the Orang (*Simia*); the Siamang (*Siamanga*); and the Long-armed Apes (*Hylobates*) of Tropical Asia and the Islands of the Asiatic Ocean. The Chimpanzee and the Orang walk on the outer edge of the foot and back of the fingers of the hand, and not on the sole as the other monkeys; they have moderately long, and the other genera very long arms. They grow to a very large size, are playful and good tempered when young, but as

they increase in age, they become very ferocious and spiteful; they grow to be four or five feet high, and are very strong.

The remaining animals of this family have more or less elongated tails, which are entirely covered with hair, and are never prehensile like those of the American monkeys.

The Capped Apes (*Presbytina*, Cases) of Asia have a small head, which is in general furnished with a tuft of long hair. The limbs, hands and tails are elongated, the body is slender, and the thumbs of the fore hands are small and placed far back. Their stomach is lobulated, and the hinder grinder of the lower jaws is five-tubercled. The Long-nosed Monkey (*Nasica*) has an elongated nose like a proboscis; the other Capped Apes (*Presbytis*) have a small nose. The Douc (*P. nemæus*) was formerly erroneously considered to be destitute of callosities, and was therefore formed into a genus under the names of *Pygathrix* and *Lasiopyga*.

The Monkeys (*Cercopithecina*, Cases) have nearly the same form as the former, but their body is stronger, their limbs are shorter, and their face is rather more produced. They are playful when young, but become ferocious as they grow old. The Thumbless Monkeys (*Colobus*) have no thumb on the fore hand; they are confined to Africa. The *Colobus Guereza* is peculiar for having the hairs on the upper part of the back much elongated, so as to fringe the sides of the body: the skin of this animal is used by the Abyssinians to form shields. The other genera have a distinct thumb to both the fore and hind hands. Some, as the *Cercopithecini*, have only four tubercles to the hinder grinder on each side of the lower jaw: they are found both in Africa and Asia. Others, as the Mangabeys (*Cercocebus*) of Africa, and the Bonnet Apes (*Macacus*) of Asia, have five tubercles on the lower hinder grinders, and rather produced shelving faces, with the nostrils in the middle of the face; the *Cercocebi* have elongated hairy tails; the *Macaci* have shorter tails, and their eye-brows very prominent. One, the Magot (*Inuus*), has only a very rudimentary tail.

The Baboons or Dog-faced Apes (*Cynocephalina*, Cases) are so called because their noses are produced and cut off at the end like a dog's. They have five tubercles to their lower hinder grinders, and are confined to Africa. Some have cylindrical tails, tufted at the end, as the *Cynocephali*. The *Maimons* have a very short tail, as the Mandril and the Dril; the former is peculiar for having the nose of the adult animals brightly coloured.

The family of AMERICAN MONKEYS (*Cebidæ*, Cases) differ from the Monkeys of the Old World, in their nostrils being wide apart, and as it were opened on the sides of the nose; they have no cheek pouches, they never have any callosities on the rump, and their tails, which are usually long and strong, are often prehensile, and used as a fifth hand, to assist them in climbing. They mostly have six grinders on each side of each jaw.

Some have a truly prehensile tail, having a naked cartilage at the part beneath the tip. Of these the *Atelina* have very slender bodies and long limbs, like the Long-armed Apes; some have no thumb on the fore hand, as the Spider Monkeys, *Ateles* and *Brachyteles*; and others, as the Negro Monkeys (*Lagothrix*), have a distinct thumb. They are slow, mild and gregarious, eating insects and fruits.

The other American Monkeys with prehensile tails (*Mycetina*) have a very large tumid cellular Adam's Apple, (or larynx,) and are called howlers, from the continual loud noise they make in the woods, especially at night. They live on leaves, and are as slow, and more melancholy in appearance than the Spider Monkey, as the genus *Mycetes*.

The remainder of the American Monkeys have their tail entirely covered with hair.

Some of these, as the *Cebi*, have nevertheless the faculty of curling their tail, and using it to assist them in climbing. They live on fruits and insects, are lively and gregarious, and are playful when young.

The tail of the other kinds is not curled. Some of these have a slender tufted tail, as the *Callithrix*, which are diurnal, lively, with a moderately sized face and orbits, and the *Nyctopithec*i, which are nocturnal, with a very small face and large orbits, like an owl's. The *Pithecia* are diurnal, but have a thick hairy tail, which is nearly as long as the body, and they are often furnished with a dense beard; the *Brachyuri* only differ from them in having a shorter tail.

The *Iacchi* are very like the former, but they have only five grinders on each side of each jaw. They are small, lively, and live on insects; some have a ringed tail, and a tuft of long hair on the side of the ears; others, as the species of *Midas*, have a uniformly coloured tail and no ear-tufts, but are often furnished with an elongated mane.

The family of LEMURS (*Lemuridæ*, Cases —) are much more quadruped-like in their form than the Monkeys; their lower cutting teeth are produced and slanting; and the fore fingers of their hinder hands are armed with an elevated pointed claw. They eat fruits and insects, and are generally covered with a soft woolly fur. They are almost confined to Madagascar, only a very few species being found in Tropical Africa and Asia.

Some have an elongated conical head, bluntly tubercular grinders, and elongated hind legs, as the *Macaco* (*Lemur*) and *Propithecus*, which have long tails, and the *Indris*, which are nearly tailless. They are all peculiar to Madagascar and the Island of Johanna. Others have a round head, with a short muzzle, large orbits, and nocturnal eyes, as the *Loris* and *Nycticebus*, which have elongated limbs, and a very short or no tail. The *Galago* and *Cheirogaleus* have an elongated woolly tail. The *Tarsiers* (*Tarsius*) differ from the latter in having the second and third fingers of the hinder hand furnished with subulate claws, instead of the index fingers, as is the case in all the other genera.

The family of COLUGOS, or Flying Lemurs, (*Galeopithecidæ*, Case ,) are peculiar among the Primates for having the hairy skin of the body extended between the body and limbs so as to form a kind of parachute. Their fingers and toes are short, webbed, and sharply clawed; the cutting teeth are pectinately lobed. They are nocturnal animals, living on fruits and insects, in the Islands of the Indian Archipelago, suspending themselves by their feet to the branches of trees with the back downwards, and thus forming a kind of hammock in which they nurse their young.

The family of BATS, (*Vespertilionidæ*, Cases 24—28,) like the former family, have a thin skin extended between their limbs and the body, but they are peculiar for having the fingers of their fore hands very much elongated, and united together by the thin membranous

skin, which enables them to fly, or rather flutter, like a bird. The thumb is always simple and free; they live suspended by their hinder legs, head downwards, during the day, flying and searching for their food by night. They walk with their wings folded up, on their hind feet and the wrists of the front ones, assisted by their fore thumb, by which they also sometimes suspend themselves.

The Leaf-nosed Bats (*Istioophori*) have the nostrils placed in a separate bald space, which is often elevated behind into a leaf; their teeth are acutely tubercular, and their index finger is not clawed.

The true Leaf-nosed kinds (*Phyllostomina*) have the nasal disk expanded into a distinct leaf, which is simple behind, and pierced with the nostrils in front; they are peculiar to warm climates. Those which are only found in the New World are peculiar among bats for having four joints to their middle finger; their forehead is simple, and their ears lateral. Those of this group which live on insects have an entire under lip, with a small triangular smooth place in front. Some of these have no tail, and a large truncated femoral membrane, as *Vampyrus*, *Carollia*, and *Lophostoma*; others have the interfemoral membrane deeply notched, as *Arctibeus* and *Brachyphylla*. *Phyllostoma* has a short tail on the upper side of the membrane; and *Macrophyllum* has a long tail, extended to the tip of the truncated membrane. Those which live on blood, (which they suck from living animals, especially during their sleep, and have hence been called *Vampyres*,) have a deep cut in the centre of the front of the lower lip, which is often fringed, into which their elongated tongue is fitted. The head is elongated, and the chin is covered with reflexed whiskers. Among these the true *Glossophaga* are peculiar for having no tail. The *Monophylli* and *Phyllophoræ* have a short tail, with the tip on the back of the truncated membrane; and the *Anouræ* have neither tail nor membrane. The *Stenoderma* are like the latter, but their nose leaf is double; they are said to have no grinders, and a simple intestinal tube. Those which are found in the Old World, like the rest of the Bats, have only three joints to the middle finger. Some, as *Rhinopoma*, have a large pit on the forehead, and the ears are large and close together. *Megaderma* and *Lavia* have a simple forehead and large ears, which are united together over the forehead; they have no tail, very large interfemoral membranes, and wings.

The Horse-shoe Bats (*Rhinolophina*) have the nasal disk expanded into a leaf behind, and with a pit or process between the nostrils in front. In the genus *Ariteus* the nose-disk is large, with a deep pit between the nostrils; they have no tail, and their interfemoral membrane is very narrow. The true Horse-shoe Bats have a long tail, inclosed in a large interfemoral membrane; and there is a process between the nostrils; they are only found in the Old World. The nose-leaf of *Rhinolophus* is lanceolate and erect; of *Hipposideros* short, reflexed, with a thick cross rib; and in *Asellia* three-toothed. *Cyclopa*, which has the same kind of nose-leaf as *Hipposideros*, has an expansile pore on the forehead. These Bats often have the side of the face covered with transverse membranous folds.

The remainder of the Bats, or *Cheiroptera*, have been called Simple-nosed Bats (*Anistiophora*), because their nostrils are simply pierced in the end of the muzzle, without any nasal disk.

The tribe of true Bats (*Vespertilionina*) have acutely tubercular

grinders, broad and large wings, with an elongated tail, as long as, and inclosed in a large conical interfemoral membrane. The upper cutting teeth are near the canines, and separated by a space from those of the opposite side. They are divided into genera, according to the form of the nostrils and ears. In *Nycteris* the nostrils are placed in the front of a groove; the grooves are close together in front, and diverge from one another behind, and are covered by the spirally inflexed outer margin, which is notched in front for the entrance of the air. The *Petalia* of Africa only differs from the *Nycteris* of Asia in the ears being close together, but not united in front. *Nyctophilus*, *Barbastellus*, and *Plecotus* have large united ears like the former, but each of the nostrils is seated in the front of a short lunate nasal groove. In *Nyctophilus* the grooves are united behind into an elevated crest, extending across the nose; in the other two genera, the grooves are simply lunate, and the forehead has an oval bald line, the *Barbastelli* having broad sub-quadrate, and the *Plecoti*, elongate ears. The remainder of this tribe of Bats have the ears separate on the side of the head. *Romicea* has the grooves of the nostrils elongated, converging, and united behind into a single groove, on the centre of the nose, between the swollen cheeks. In the others, each of the nostrils has only a very short groove behind it, as the genus *Vespertilio*, which has thin ears and wings; and *Scotophilus* with thick ears and wings. *Natalus* only differs from *Vespertilio* in the length of the legs and tail, and especially of the heel bones. *Pachyotus* differs from *Scotophilus* in the interfemoral membrane being slightly, and *Lasiurus* in its being very hairy.

The tribe of Bull Dog Bats (*Noctilionina*) have acutely tubercular grinders, and feed on insects, like the true Bats, but their wings are very long and narrow, their bodies thin, and their tails thick; their lips are generally very thick and prominent, resembling in appearance those of a bull dog. They are divided into genera according to the position of the tail.—In many the tail is short, and the tip is produced on the upper surface of the large interfemoral membrane, which is folded inwards when the animal is at rest. The genus *Mormops* is peculiar for having a number of differently placed membranaceous ridges on the face and chin, giving the animal a most grotesque appearance. *Chilonycteris* has a few ridges on the chin, and a toothed ridge across the end of the nose. These two genera are only found in the West Indies and Cuba. The genus *Taphozous*, only found in Africa and India, has a simple face, with a large pit on the forehead; and the males generally have a transverse glandular slit on the throat. The Bull Dog Bat (*Noctilio*) of South America, has a very warty muzzle, with large dependent lips; they have only two cutting teeth in the lower jaw, which induced Linnæus to separate this genus from the rest of the Bats, and to place it with the Rats; the young animals have a white streak on the back. The genus *Proboscidea* differs from the former in the head being long and conical, and the muzzle produced and sharp edged, and in having six cutting teeth below; it is found only in Brazil; and *Centronycteris* only differs in the interfemoral membranes being conical and produced. In the genus *Pteronotus* the tail is elongated and produced to the end of the conical interfemoral membrane, as in the *Vespertilionina*; and the wings, as in some of the fruit-eating Bats, arise from the centre of the back, which is covered with fur on the side beneath them; their chin is marked

with membranaceous ridges. The third group consists of those genera which have the thick end of their tails produced beyond the short transversely folded interfemoral membrane; they have a large thumb, which is usually swollen beneath. The ears of *Cheiromeles* are small, and on the sides of the head. In *Myopterus* they are similar, but larger, and the muzzle is short and blunt. In the other genera, the ears are very close together, and folded down on the front of the head, as in *Nyctinomus*, which has the muzzle obliquely truncate, and the lips large and transversely ridged; and *Molossus*, which has the face conical, the nose rounded at the end, and the lips swollen. *Thyroptera* chiefly differs from the latter in having a large round pad on the middle joint of the thumb. The genus *Diclidurus*, from Brazil, differs from the preceding in the tail being very short, many jointed, and inclosed in a two-valved sheath placed at the base of the extended interfemoral membrane.

The last tribe of Simple-nosed Bats (*Pteropina*) are peculiar for living almost entirely on fruit. They are characterized by having bluntly tubercular grinders, and the end of the fore finger furnished with a claw; they have a simple nose, with rather tubular nostrils placed on the sides of the muzzle; their thumb is long and webbed at the base; the interfemoral membrane is short, and they have only a very short tail, or none. They are found only in the warm parts of the Old World and the Australian Islands, where they are usually called Flying Foxes. They are divided into genera according to the form of the head, the position of the wings, and the length of the tongue. The *Pteropi* have a conical head, and are of a large size; the *Cynopteri* have a short thick head; the *Epomophori* a large head, and tufts of white hair on or near the head; the *Macroglossæ* a long muzzle, and very long slender tongue. *Harpysia* and *Cephalotis* have heads like the *Cynopteri*, but the wings arise from the middle of the back; the latter wants the claw on the end of the index finger.

Order I. PRIMATES.	Iacchus.	Brachyphyllum.	Scotophilus.
Fam. 1. <i>Hominidæ</i> .	Midas.	Diphylla.	Lasiurus.
Homo.	Fam. 4. <i>Lemuridæ</i> .	Stenoderma.	4. <i>Noctilionina</i> .
Fam. 2. <i>Simiadaæ</i> .	Lemur.	Endostoma.	Taphozous.
Troglodytes.	Propithecus.	Phyllophora.	Noctilio.
Simia.	Indri.	Glossophaga.	Proboscidea.
Hylobates.	Lichanotis.	Monophyllus.	Centronycteris.
Siamanga.	Loris.	Anoura.	Embalonura.
Presbytes.	Nycticebus.	Rhinopoma.	Ællo.
Colobus.	Pterodicticus.	Megaderma.	Chilonycteris.
Cercopithecus.	Otolicnus.	Lavia.	Mormops.
Cercocebus.	Galago.	2. <i>Rhinolophina</i> .	Pteronurus.
Macacus.	Cheirogaleus.	Ariteus.	Cheiromeles.
Inuus.	Tarsius.	Rhinolophus.	Nyctinomus.
Cynocephalus.	? Cheiromys.	Hipposideros.	Thyropterus.
Papio.	Fam. 5. <i>Galeopithecidaæ</i> .	Asellia.	Molossus.
Fam. 3. <i>Cebidaæ</i> .	Galeopithecus.	3. <i>Vespertilionina</i> .	Dinops.
Brachyteles.	Fam. 6. <i>Vespertilionidaæ</i> .	Nycteris.	Myopterus.
Ateles.	1. <i>Phyllostomina</i> .	Nyctophilus.	Diclidurus.
Lagothrix.	Arctibeus.	Barbastellus.	5. <i>Pteropina</i> .
Mycetes.	Phyllostoma.	Plecotus.	Pteropus.
Cebus.	Carollia.	Romicea.	Cynopterus.
Callithrix.	Lophostoma.	Vespertilio.	Epomophorus.
Nyctopithecus.	Macrophyllum.	Furia.	Macroglossa.
Pithecia.		Natalus.	Harpysia.
Brachyurus.		Myopterus.	Cephalotes.
		Capacinus.	Acerodon.

The fourth order or *Glirine* Mammalia (GLIRES, Cases 29 to 43) are easily known, because they have only two strong cutting teeth in each jaw, which are separated from the grinders by a space. They have no canines, and the condyles of the jaws are longitudinal, which enable them to move their jaw from side to side and thus triturate their food. Their toes are distinct, with small conical claws, and the thumb is sometimes rudimentary.

Some have a scaly or spinose tail, and there are scattered spines or larger hair intermixed with the softer fur.

The family of Mice (MURIDÆ) have a more or less elongate tail, covered with whorls of scales; the fur is soft, with scattered longer hairs or flat channelled striated spines; the limbs are proportionate, the front thumb wart-like; the lower cutting teeth are awl-shaped, the grinders of the upper jaw shelve backward, and the lower ones forward; the ears and eyes are distinct. The *Murina* have separate toes, a wart-like thumb to the fore feet, and tubercular grinders. Many of these have three grinders in each jaw, as *Mus* and *Pseudomys*, which have an elongated tapering tail and no cheek pouch; *Cricetomys* has a long, and *Cricetus* a shorter tail and cheek pouches, and *Hapalotis* has a small pencil of longer hair, somewhat like a jerboa, at the tip of the tail. Others, as *Perognathus*, have four grinders in each jaw. Other genera have the crown of the grinders flat, as if they were truncated; some of them have the crown cut in on opposite sides, as the genera *Mystromys*, *Rhombomys*, *Psammomys*, *Meriones*, and *Euryotes* (*Otomys*, F. Cuv.) The remainder have the crown cut in with lobes in the enamel alternately first on one side and then on the other, as *Sigmodon*, *Neotoma*, *Elismodon*, *Reithrodon*, *Myodes*, and *Arvicola*. The genus *Sminthus* is peculiar for having four grinding teeth in the upper and three in the lower jaw. Others, as *Saccomys*, *Heteromys*, and *Dipodomys*, have four teeth in each jaw, they also have a membranaceous pouch on each side of the face, opening externally on the cheek; the two former have elongated tapering tails, but the first is covered with soft fur; and *Heteromys* with flat channelled spines, and *Dipodomys* has a depressed bunch of soft hair on the tip of the tail. The *Castorina* have five toes on the front foot, and the hinder foot enlarged and more or less distinctly webbed; they live chiefly at the side of the water, as the Beaver (*Castor*) of the northern regions, which has four grinders in each jaw, and a broad depressed scaly tail; the *Corypus* (*Myopotamus*) of Central America, which has the same number of grinders, and a cylindrical tapering tail; both of these have rooted, rounded, alternately plaited teeth; the *Ondatra* (*Fiber*) of North America, which has three flat crowned grinders in each jaw and a tapering tail, and elongated alternately plaited rootless teeth; and the *Hydronys* of Australia, which has the same kind of tail, but only two rooted grinders in each jaw with opposite folds. The *Psammoryctina* have four grinders in each jaw; the angle of the lower jaw produced into a hook, the ears are small or moderate. They are only found in the warmer parts of America. The *Echimyna* have four grinders in each jaw, and the angle of the lower jaw is produced into an elongated process; their limbs are proportionate, and the ears moderate; they are peculiar to Central America. Some, as *Habrocoma*, *Octodon*, and *Psammoryctes*, have very soft fur; *Capromys* and *Aulacodus* have bristly

fur, the latter indeed very rigid, and the remainder have flat channelled grooved spines intermixed with their fur, as *Loncheres*, *Nelomys*, (*Echimys*, *Cercomys*, F. Cuv.) and *Dactylomys*.

The family of Porcupines (HISTRICIDÆ) have the tongue and body covered with cylindrical spines or bristly hair; their clavicles are incomplete or quite wanting; the grinders are four in each jaw. Some are covered with spines and have compound rooted grinders, as the *Histicina*, which have a short tail with pedicelled spines, which rattle as the animal shakes; they live on herbs. Others have a more or less elongated tail, and live on trees, eating the leaves, as the *Erethyzon*, which has a truncated tail, and the *Cercolabes* and *Sphiguris*, which have a prehensile one. The remainder of the family have more or less rigid hair; they have none or a very short tail, and long hoof-like claws. Some, as *Dasyproctina*, are omnivorous, and have complicated grinders. *Dasiprocta* has no cheek pouch, and *Cælogenus* has large cheek pouches under the zygomatic arch, opening on the side of the cheek. Others have composite rootless grinders, living on herbs near water, as the *Hydrochærina*, which have harsh bristly fur, large hoof-like claws, and the hinder grinder formed of many plates; and the *Caviina*, which have a soft fur and smaller claws, and each of the grinders formed of two plates, as the Cavies (*Cavia*) with a short head and large teeth, and Moko (*Kerodon*) with an elongated head.

The other *Glires* have soft nearly equal fur, and no or a hairy tail.

The family of Hares (LEPORIDÆ) have two small teeth behind the upper cutting teeth, five rootless grinders in each jaw, each formed of two plates. The infra-orbital foramen is small, the bones on the sides of the skull are pierced; the ears and eyes are large, the tongue hairy, the clavicles are incomplete, the fore feet are generally weak, tail is short and hairy. The Hares (*Lepus*) have the hinder grinder smallest; the Rock Hares (*Lagomys*) the front grinder smallest.

The family of Jerboas (JERBOIDÆ) have only two cutting teeth in each jaw; like most of the *Glires*, their eyes are large and prominent, their tail is long, hairy, and used in leaping or walking; the hind feet are much the longest, and the fore feet short and often used as hands; their clavicles are distinct. Some have compound or rootless grinders, their tail is long and hairy, often flattened; as the tribe of *Pedestes* (*Pedestina*, Case) of Africa, which have four grinders in each jaw with a single fold on one side of the crown; the hind legs are very long, and the tail elongated. The tribe of *Chinchilla* (*Chinchillina*), which is peculiar to South America, has four grinders in each jaw, each formed of two or three parallel plates, the legs are more proportionate, the ears large, and the tail moderate, covered with long hair. The remaining genera have rooted simple grinders. The tribe of Jerboas (*Dipina*) with very long hinder legs and long tails, have four grinders in the upper and three in the lower jaw, with irregularly lobed grooves; the first hinder grinder is very small. Some from North Africa and Asia have the end of the tail tufted, as *Dipus*, *Alactaga*, *Iaculus*. Some from America have the tail very long, slender, tapering, and covered with short slightly rigid hair (*Meriones*). Others have the limbs much more proportionate and equally strong. The tribe of Dormice (*Myoxina*) have four grinders in each jaw, the front thumb wart-like, the frontal bone contracted without any post-orbital

process; they are peculiar among the Glires for having no cæcum, as the genera *Glaphirus*, *Eleomys*, and *Glis*, which have a depressed hairy tail, and *Myoxus*, which has a roundish one. The tribe of Squirrels (*Sciurina*, Case) have much the habit of the former, but there is generally a small additional grinder in the front of the other in the upper jaw, and the frontal bone is dilated into a post-orbital process. Some of these have the skin of the sides of the body dilated and spread out between the limbs, as the *Pteromys*, which have a short wide depressed tail and very complicated crown to the grinders, and the *Sciuropterus*, which has a long roundish tail, and the grinders with simple crowns like the rest of the squirrels. The remaining genera of this tribe have the skin of the body simple, as the Squirrels, which have a large broad depressed tail, and live in trees. The Ground Squirrels (*Xerus*), which live in holes in the ground, have short rather rigid hair. The *Tamias* have cheek pouches opening into the mouth. The Souselick (*Spermophilus*) have much the appearance of squirrels, but the front claws are elongated, and they always live in holes on the ground, sitting on their haunches; and the Marmots (*Arctomys*) are known from the former by their shorter tails and heavier bodies; the front claws are compressed and elongated, and the ears obsolete. In the two latter genera the front upper fifth grinder is rather larger and more like the others; they generally sleep during the winter.

The Aye-Aye (*Cheiromys*) of Madagascar, has many characters of the squirrel, but it has only four grinding teeth above and three below, and it has very long fingers to the fore feet, which are also furnished with an opposable thumb. In the size of the cerebral cavity and the form of the skull it has many relations to the *Lemurs*.

The family of Mole-Rats (ASPALACIDÆ) have very small eyes and ears; they have a large blunt head, thick cylindrical bodies without any or only a very short hairy tail; they have five toes on each foot, rather strong hinder limbs, and the lower cutting teeth are large, broad, truncated, and often much exposed. Some have a very short or no tail, and three grinders in each jaw, as the *Zemni* (*Spalax*), which have rooted simple teeth, and short front claws; and *Zoker* (*Siphneus*), which have elongated front claws and compound laminar teeth. The Suckerkan (*Chtonoergus*, Case) of North Asia, which has four rooted grinders, and short truncated hairy tail and moderate claws. The Rat Moles of the Cape have similar grinders, and short depressed hairy tail, as the *Georhynchus* with short, and the *Bathyergus*, which have very long front claws. Others have a short nakedish tail, as the Pouched Rat (*Saccophorus*) of America, which have large cheek pouches opening on the outside of the cheek; the front claws are very long and straight. They are said to use the pouch to carry the earth out of their burrows. The Sewellel (*Aplodontia*) of North America have five grinders in the upper jaw, and the front one small like the Marmots, but the eyes are very small and the tail short, and the fore claws long. The *Ctenomys* of Central America has only four rooted grinders in each jaw, the tail thick, and the front claws curved. The Bamboo-Rats (*Rhizomys*) of Malacca have cylindrical complicated grinders, the front claws moderately curved, and the cutting teeth very large and exposed.

The following Table shews the arrangement of the genera at one view.

Ord. IV. GLIRES.	3. <i>Sacomyna</i> .	2. <i>Cercolabina</i> .	Alaetaga.
Fam. 1. MURIDÆ.	Sacomys.	Erethizon.	Jaculus.
1. <i>Murina</i> .	Heteromys.	Cercolabes.	b. Meriones.
a. Mus.	Dipodomys.	Spiggyurus.	4. <i>Myoxina</i> .
Hesperomys.	4. <i>Castorina</i> .	3. <i>Dasyproctina</i> .	Myoxus.
Pseudomys.	Castor.	Dasyprocta.	Glaphiurus.
Cricetomys.	Myopotamus.	Cælogemys.	Eleomys.
Cricetus.	Fiber. (<i>Ondatra</i> .)	4. <i>Hydrocherina</i> .	Glis.
Dendromys.	Hydromys.	Hydrochærus.	5. <i>Sciurina</i> .
Akodon.	5. <i>Echimyna</i> .	5. <i>Caviina</i> .	Pteronys.
Hapalotis.	a. <i>Habrocoma</i> .	Cavia.	Sciuropterus.
b. <i>Perognathus</i> .	Octodon.	Kerodon.	Sciurus.
2. <i>Arvicolina</i> .	Psammoryctes.	Fam. 3. LEPORIDÆ.	Macroxus.
c. <i>Mystromys</i> .	b. <i>Capromys</i> .	Lepus.	Xerus.
Rhombomys.	c. <i>Aulacodus</i> .	Cuniculus.	Tamias.
Psammomys.	d. <i>Loncheres</i> .	Lagomys.	Spermophilus.
Gerbillus.	Nelomys.	Fam. 4. JERBOIDÆ.	Arctomys.
Euryotis.	Echimys.	1. <i>Cinchillina</i> .	? Cheiromys.
Otomys.	Cercomys.	Cinchilla.	Fam. 5. ASPALACIDÆ.
d. <i>Signodon</i> .	Dactylomys.	Lagotis.	Spalax.
Neotoma.	e. <i>Petromys</i> .	Lagostomus.	Siphneus.
Elismodon.	Fam. 2. HISTRICIDÆ.	2. <i>Pedestina</i> .	Chtonoergus.
Reithrodon.	1. <i>Histricina</i> .	Pedestes.	Georhychus.
Ctenodactylus.	Histryx.	3. <i>Dipina</i> .	Bathyergus.
e. <i>Myodes</i> .	Antherura.	a. <i>Dipus</i> .	Saccophilus.
Arvicola.			Apludontia.
Sminthus.			Ctenomys.
			Rhizomys.

The Table Cases contain the continuation of the collection of RADIATED ANIMALS, consisting of such as are covered with a smooth skin; in some the outer skin is hardened into a sheath for the protection of the contractile body of the animal, while in others the body of the animal itself, as it enlarges in size, is gradually transformed into a hard and stony coral, by the continual deposition of earthy particles into the older part of its substance.

This division (LEIODERMATA) contains three classes; the *Acalepha* or Sea Nettles, the *Zoophytes*, and the *Polyzoa*.

The first class of ACALAPHA, or *Blubber-fishes*, are so called from their being almost entirely formed of a soft, very cellular, jelly-like substance, which rapidly decomposes after death, without leaving any hard part or skeleton that can be preserved in a dry state; they are destitute of any true stomach, but only have vesicles in their substance. They float free on the ocean. A few animals, which appear to be intermediate between them and the Sea Anemonies, as the *Porpita* and *Verella*, have a cartilaginous plate sunk in their back, which keeps them of a defined form. The plate of the *Porpita* (Case 1) is circular and simple, while that of the *Verella* (Case 1) is oblong, with an erect crest placed obliquely across its back.

Cases 1 to 30 are occupied with the hard parts of the second class, or ZOOPHYTES, (*Zoophyta*), which are so called because these animals are often crowded together in societies or families, in such a manner as to assume the form of trees. This form is taken to allow each of the individuals of which the society is composed to procure a fair and equal share of nourishment from the water which surrounds them, and on which they live, as the leaves of trees extract nourishment from the air in which the plant grows.

Each individual animal of these zoophytes has a simple plaited membranaceous bag-like stomach, with only a single orifice, like that of the Star-fish, and their mouth is surrounded by a more or less numerous series of tentacles, which search for and conduct the food that comes within their reach into the digestive cavity, while the animal itself is generally attached by its back to marine bodies, and very commonly to others of its own kind; the union which they form with each other is sometimes so intimate that one individual cannot be injured without its being felt by the whole society. The hard parts of these animals have been all classed under the name of Corals, but the animals which form them are of three very different kinds, each forming a peculiar kind of skeleton for its protection. They are divided according to the form of the stomach, and the number of the tentacles, into three orders, the *Zoanthiaria*, *Zoophytaria*, (p. 131,) and *Polypiaria*, (p. 133).

The first order of these animals, or ZOANTHIARIA, (Cases 1 to 20,) are so called from their resembling a flower when their tentacles are expanded: they are characterized by having very numerous simple tentacles placed in one or more series round their mouth, and their stomach furnished with more or less numerous longitudinal folds, which subdivide it into different cells.

Some of these, as the Sea Anemonies, (*Actiniadae*,) are quite soft and covered with a smooth skin, so that they can only be preserved in a damp state. The *Lucernariae* only differ from these in the mouth being cut into four or eight lobes. A few have a hard cartilaginous outer skin, which is often strengthened by the deposition of earthy grains within its surface, as the *Zoanthidae* (Case 1). Some of these are crowded together into a mass, as *Corticifera*; others are distinct from one another, but arise from a common surface, which is either an expanded base, as in *Mammillifera*, or a creeping stem, as in *Zoanthus*. By far the greater number of these animals, as they grow, deposit in the cellular substance of the flesh of their back an immense quantity of earthy matter, which enlarges as the animal increases in size, and in fact fills up all those portions of the substance of the animal which, by the growth of new parts, are no longer wanted for its nourishment, and in this manner they form a hard and stony case, amongst the folds of which they can contract themselves, so as to be protected from external injury, and by the same means to form for themselves a permanent attachment, which prevents their being tossed about by every wave of the element in which they live. The stony substances so formed are called *Corals*, and their mode of formation causes them exactly to represent the animal which secretes them; the upper surface is always furnished with radiating plates, the remains of the calcareous particles which were deposited in the longitudinal folds of the stomach before referred to, and as these plates do not usually reach to the centre, there is almost always a vacant space in the middle between them.

The structure of these animals, and of the corals they form, is most easily studied in those kinds which are simple and separate from each other, as the *Fungia*, (Case 2,) and if these are understood, the structure of the other kinds will readily be made out, for they are all formed in the same manner, although they are much modified in their outward form by being crowded together into a hemispherical mass like the Brain-stone, (Case 10,) in the form of a tree-like Coral, (Case 15,)

or of an expanded frondose mass, like the *Explanaria*. All these variations result from the manner in which the animal emits from the whole surface, or from a particular part of the sides of its body, the bud by which the new individuals of the general mass or society are produced.

In the greater part of these animals, the stomach is furnished with numerous folds, leaving many plates in the cells of the coral, and the mouth has generally equally numerous tentacles, as in the Sea Anemonies, or *Actinæ*. In some, as the *Fungia*, *Turbinolia*, and *Cyathina*, (Case 2,) the animals are simple and solitary, and not spontaneously divided, so that the coral only offers a single cell. In others, where the animals live in societies, the mouth often contracts on the side and separates of its own accord gradually into two or more mouths; it then produces as many separate cells, which are separated or forked where the contraction took place. In some of these, as the *Lobophyllia*, &c., (Case 3,) the bodies of the different animals of the same mass, and the cells of the coral remain separate from each other. In a few, as *Anthophyllum*, (Case 7,) at certain intervals of its growth, the animals throw out an expansion which deposits a shelly plate that unites the different cells formed by each of the bodies into a common mass, though the cells themselves are distant from each other. But in very many, the bodies of the different animals of the same group, as they are produced, are united together side by side, forming a coral with all the cells united together into a globular, branched, or expanded foliaceous mass. These forms depend on the manner in which the reproduction of the different individuals of the masses takes place, whether by the contraction and spontaneous division of the mouth, when the cells are deep and form a rounded mass, or by the development of buds from the sides of the parents, when the animal forms an expanded frond, as in *Pavonia*, &c.

In some, the stomach of the animal is only provided with twelve slight folds, and the mouth has only ten or twelve tentacles. In this case the cell of the coral is provided with only a few slightly raised rays. Most of these animals live crowded together in societies forming a branched coral, and the cellular substance of the animal is in general not so perfectly filled with calcareous matter as in the former kinds; consequently the coral is of a more spongy or lighter texture, as in the Madrepores, *Madrepora*, *Porites*, &c. (Cases 15—18.)

Near these Corals must be arranged for the present, until their animals are better known, the *Millepores* (*Millepora alcicornis* of Linnæus). The latter is remarkable for the rapidity of its growth, and the facility with which it expands itself over all the different anomalous objects that come in its way; thus we have it covering shells, bottles, gorgoniæ, &c., and assuming the form of all the things it covers (Case 20). According to Mr. Nelson, the animal is very different from that of any other coral, being quadrangular, expanded at intervals into four rays, and destitute of any true tentacles.

The different kinds of these animals grow and increase with great rapidity, forming enormous masses of coral, as may be judged from a fragment on the south side of this Room. It is their skeletons that form the reefs round the islands in the Pacific Ocean, the growth of which has furnished such an interesting problem to the scientific

naturalist. The specimens usually shewn in collections are small individuals which grow in the sheltered places among the rocks, where they are not exposed to the action of the waves, and collected before they have reached their proper magnitude. The form of the masses appears to be greatly influenced by the positions in which they have grown, and the size of the individuals greatly depends on the quantity of nourishment they are able to procure. This is proved by the fact, that if all the individuals of the same mass are equally exposed, they are of an equal size, but if the surface of the coral is waved, as in the *Explanaria*, (Case 13,) the individuals on the convex part of the mass, which could procure the most food, are large, while those in the concave or sunken parts are small.

The ZOOPLYTARIA, or second order of the Zoophytes, (Cases 21—28,) are easily known from the other kinds by having only six or eight tentacles, furnished with one or more series of short processes on each side. Their stomach ends in six or eight elongated processes, which are considered as the oviducts. One genus of these animals (*Cornularia*, Case 21) is said to have a horny external skin like the *Tubularia*, into which the animal is retracted for protection. There are some other genera which are said to have a hard cartilaginous external skin like the *Zoanthi*, as the *Telesto*. One genus has a similar tough skin, which is at length so hardened by the deposition of calcareous matter within its substance as to become a hard coral. This genus of animals live in groups side by side, and as they increase in size form shelly tubes, which has caused them to be called *Organ Coral* or *Tubipora* (Case 21). At certain intervals the animals contract themselves into their tubes, and bend out the soft part of the outer skin of the body near the head, so that it forms a broad collar round the end of the harder tube; and as the different animals of the same group of tubes generally perform this action simultaneously, the collars of the different tubes come in contact, and, having chalky matter deposited in them, unite and at length become stony like the rest of the tube. After this has been done, the animal begins to form another tube; and after a time they repeat the same process again, so that the different tubes of the same group are united by cross layers into a single mass. The animal being bright green, and the coral vivid red, makes it a most beautiful object when alive.

By far the greater number of the animals of this order have a very thick, spongy outer skin, which is often strengthened by having variously shaped calcareous grains, or rugose and more or less fusiform calcareous spiculæ, imbedded in its surface. These animals live in societies closely united in a single mass by their outer skin, while there appears to be also a general community of function in their more important internal organs. They are constantly emitting buds from different parts of their surface, and as each species emits them in a peculiar form, the mass assumes a definite shape, varying in the different kinds.

In general, the common mass has an expanded base by which it is attached to some marine body, and when the mass is of a low rounded shape, as in *Lobularia*, (Case 28,) the spiculæ in the substance of the skin are strong enough to support the mass, but when the mass assumes an erect or a branched tree-like form, the animals secrete in the centre of their body a more or less rigid support, which has been called **their**

axis, and which has sometimes, though erroneously, (from its being commonly seen in collections without the remains of the investing animal,) been considered the entire coral. This axis is thickened by depositions of fresh layers of horny matter on its surface as the mass increases in size and requires more support, the increase of the thickness and length of the axis being always simultaneous with the growth of the mass. In some kinds, the axis is only formed of an immense number of spiculæ, like those in the substance of the skin, being crowded together in the centre, as in the genus *Briareum* (Case 28).

In general it is formed of a quantity of horny matter, which is deposited in successive layers, as in *Gorgonia* (Cases 24 to 26). The axes of some of these kinds have been called, from their colour, *Black Coral*, and were formerly much esteemed for their supposed magical and medicinal qualities. They are now chiefly used to make riding whips and whisks.

In some genera a large quantity of calcareous matter is deposited along with the horny matter, forming a stone-like axis, as in the Red Coral, (*Corallium*, Case 21); and in other kinds the calcareous matter is only deposited in certain parts of the axis, leaving the rest simply formed of the horny animal matter, as in the genus *Isis* (Case 21). In this kind the axis has been considered as jointed, because the stony and the horny parts easily separate from each other when the mass of the animal has been removed and the axis is dried; but a larger and larger quantity of stony matter is gradually deposited as the mass increases in size, and in the large masses, the axis of the lower part is almost entirely stony, like the axis of *Corallium*. Specimens shewing all the changes are in the collection (Case 21). Lamarck, not being aware of this change, considered the axis of the old specimens as a different genus. The *Antipathes* (Case 27) have the same kind of animal and axis as the *Gorgonia*, but the skin of the animal is thin, cellular, and easily leaves the axis bare, when the mass is taken out of the water.

In the genus *Hyalonema*, (Case 28,) the animal mass, instead of forming a single axis for its support, secretes in the middle of its substance a bundle of thin transparent fibres looking exactly like a rope of spun glass; each of these fibres is formed of numerous concentric coats, like the axis of *Gorgonia*, and they are each of them enlarged in size by a new layer of mineral matter, secreted by the thin membranes which surround each of them, as the mass requires more support. Unlike the axis of *Gorgonia*, the fibres are formed of nearly pure flint, and are hard enough to scratch glass, and the mass, instead of forming for itself an expanded base, lives with the end of the axis sunk in a species of sponge. This genus is found in the Japanese seas. It is the only one, whose animal nature is well determined, that secretes pure silex, for the *Tethya* probably belongs to the vegetable kingdom.

The Sea Pens (*Pennatulidæ*, Case 28) have many characters in common with the *Gorgoniæ*. They have only a single axis, which pervades their central stem, but they live floating free in the sea or with the naked part of the base of their stem sunk into the sand and mud on the coast, as the *Hyalonema* is into a sponge, and they are easily known from both by their symmetrical form, which, in the true *Pennatula*, resembles that of a pen with the animals coming out from the upper part of the side branches. *Virgularia* differs from the former in the stem

being longer, more slender, and in having the side branches smaller. The *Renilla* are fleshy, with a kidney-shaped expanded head, and the animals coming out on the broad flat sides; and the *Veretillum* differs from the rest in being club-shaped, with the animals emitted on all the sides of the club.

The POLYPIARIA, (Cases 29 and 30,) or third order of Zoophytes, like the *Actinia*, have numerous simple tentacles round their mouth, but the stomach is long, simple, and not, or only very slightly, longitudinally folded.

The fresh water Polype, (*Hydra*), which belongs to this group, is peculiar for being free and having a soft contractile skin. The marine kinds have the outer skin hard and horny, forming a sheath for the stomach and more important organs, and into which the head, the contractile tentacles, and other parts of the body can be withdrawn for protection.

These animals live associated together in masses like the other Zoophytes, and their union appears to be even more intimate. In some, as the *Tubularia*, they assume the form of simple or slightly branched tubes, with the Polypi coming out at their ends. In the *Sertularia*, the animal throws out a number of lateral buds, which form for themselves small tooth-like cases in the sides of the stem; and as each species throws out its bud in a regular and definite manner, the united mass of animals resulting from this union assumes a defined form, which is peculiar to each of the species. The latter animals also emit from different parts of their bodies variously shaped cells or vesicles which contain eggs, eventually emitted and becoming the origin of other similar masses of animals.

The class of POLYZOA (Cases 31 and 32) has many characters in common with the Zoophytes, with which it has very generally been confounded. The animals, which have also been called *Bryozoa*, are united together in similar common masses; but they are much more complicated in their organization, have a regular digestive canal, a separate stomach, and distinct mouth and vent. Their mouth is surrounded with eight or more simple ciliated tentacles, which, when the animal is at rest, are contractile into the gullet. Their outer skin is in general thick or fleshy, and very often assumes a stone-like or glassy consistence.

They are nearly allied to the compound *Ascidia* in their organization, but are distinguished from them by their mouth being furnished with distinct tentacles, and by their skin often gradually assuming a stony texture.

The fluviatile kinds, which are unisexual, and have a distinct ganglionic ring round the esophagus, have the series of tentacles interrupted on one side, so that they form a horse-shoe shaped group, as in *Plumatella*, which is found in the ponds and ditches near London. When attached to leaves which rot every year, the animal only forms a thin layer of branching tubes, but when attached to permanent bodies, as twigs, bricks, &c., they form thick masses.

In the marine kinds, which are far more numerous, the tentacles form a continuous circular series.

These animals live united together in masses, exhibiting almost all the different external forms assumed by the preceding Zoophytes. In

the genus *Alcyonidium*, the outer skin is thick and cartilaginous, forming, when the animals are united together, a hard fleshy mass, which has been mistaken for an *alga*, and is difficult to keep in a dry state. In others, the skin is more or less transparent and horny, so that the mass assumes much of the appearance of *Sertularia*, as in the genera *Serialaria*, &c., (Case 31,) but in general the skin is more or less rapidly hardened into a stony case, according to the manner in which the animal is reproduced either by the spontaneous division of its body, or by the emission of buds from various parts of its surface, and these differences produce very differently shaped corals.

Sometimes the mass of animals assumes the form of a leaf-like expansion, attached by its lower surface to shells and other marine bodies; then the younger animals are formed on the circumference of the mass, and if the surface of the coral is examined, it will shew all the extraordinary and different changes which the skin assumes as the animals which formed it increase in age; the skin of the younger animal being thin and soft, it gradually becomes harder until the animal arrives at its perfect state of development, and then it thickens, blisters, and swells until the hole through which the head of the animal was emitted is obliterated, and the animals are destroyed by the development of their own skin. These cells are to be found gradually spreading from the centre of the expansion or the base of the stem of the more tree-like coral, while the new animals and their cells are being developed on the edge of the frond or the tips of the branches. Sometimes, as the mass increases in size, it sends up more or less erect lobes, and if these lobes have both of their sides equally exposed to the influence of the sea and light, so that the animals of each side can procure their nourishment, then they form two layers of cells applied back to back, as in *Eschara*. Sometimes the new cells are formed on the surface of the older and dead ones, so as to form a cylindrical branched coral, having all the new pores developed at the ends of the branches.

The UPRIGHT CASES ON THE TABLE CASES are intended to contain the large specimens of the skeletons of Zoophytes, or Corals, arranged in the same manner as the more complete series in the Tables; and the collection of these animals preserved in spirits, (especially those which cannot be well exhibited in a dry state,) is kept in the Wall Cases of the Fifth Room of this Gallery.

The following is a continuation of the Catalogue of the genera of radiated animals, (from page 119.) The numbers appended indicate the Table Cases in this Room which contain the specimens in the collection.

Section II.	Order II. CRYPTO-	Fam. 3. <i>Callianidæ</i> .	Porpita, 1.
LEIODERMATA.	CARPÆ.	Order IV. PHYSO-	Class IV.
Class III.	Fam. 1. <i>Geryonidæ</i> .	GRADÆ.	ZOOPHYTA.
ACALEPHA.	2. <i>Oceanidæ</i> .	Fam. 1. <i>Diphyidæ</i> .	Order I. ZOANTHA-
	3. <i>Æquoridæ</i> .	2. <i>Physopho-</i>	RIA.
	4. <i>Berenicidæ</i> .	ridæ.	
Order I. PHANERO-	Order III. CILIO-	Order V. CHONDRO-	Fam. 1. <i>Actiniadæ</i> .
CARPÆ.	GRADÆ.	GRADÆ.	Actinia.
Fam. 4. <i>Rhizostomi-</i>	Fam. 1. <i>Beroidæ</i> .	Fam. 1. <i>Veellidæ</i> .	Anthea.
dæ.	2. <i>Mnemeidæ</i> .	Veella, Case 1.	Metridium.
2. <i>Medusidæ</i> .			

- Megalactis.
Actinodendron.
Epicladia.
Heterodactyla.
Lucernaria.
Fam. 2. *Zoanthidæ*.
Isaura.
Capnea.
Hughea.
Zoanthus.
Mammillifera, 1.
Corticifera, 1.
Fam. 3. *Madreporidæ*.
Fungia, 1, 2.
Turbinolia, 2.
Diploctenium, 2.
Cyclolithes, 2.
Desmophyllum, 2.
Cyathina, 2.
Caryophyllia, 3.
Manicina, 3.
Oculina, 4.
Stephanocora.
Cladocora, 5.
Columnaria.
Strombodes.
Cyathophyllum.
Pterorrhiza.
Anthophyllum, 7.
Stylina, 7.
Favia.
Astræa, 7, 8.
Dictiophyllia.
Favosites.
Monticularia, 9.
Meandra, 10.
Dendrogyra, 10.
Turbinaria, 11.
Explanaria, 11.
Merulina, 11.
Pavonia, 12.
Agaricia, 13.
Polyastra.
Haliglossa, 14.
Polyphyllia, 14.
Fam. 4. *Poritidæ*.
Madrepora, 15, 16.
Porites, 17, 18.
Alloporina, 18.
Fam. 5. *Pæcilloporidæ*.
Seriatorpora, 19.
Anthopora, 19.
Pæcillopora, 19.
Heliopora, 19.
Fam. 6. *Milleporidæ*.
Millepora, 20.
Alcyonidæ
- Fam. 7. *Distichoporidæ*.
Distichopora, 20.
Order II. ZOOPHYTARIA.
Fam. 1. *Cornulariadæ*.
Cornularia, 21.
Fam. 2. *Clavulariadæ*.
Actinantha.
Clavularia.
Telesto.
Fam. 3. *Tubiporidæ*.
Tubipora, 21. *Leu*
Fam. 6. *Briareidæ*.
Briareum, 28.
Fam. 7. *Lobulariadæ*.
Lobularia, 28.
Ammothæa, 28.
Anthelia, 28.
Sympodium.
Rhizoxenia.
Fam. 4. *Coralliadæ*.
Corallium, 21.
Isis, 21. *Leu*
Mopsea, 22.
Melitæa, 23.
Prymnoa, 22.
Muricea, 23.
Scirpearia, 23.
Eunicea, 23.
Plexaura, 23.
Gorgonia, 24—26. *Leu*
Pterogorgia, 26.
Fam. 5. *Antipathidæ*.
Antipathes, 27.
Leiopathes, 27. ✓
Fam. 8. *Zeniadæ*.
Zenia.
Nephthya, 28.
Nidalia, 28.
Fam. 9. *Hyalonemidæ*.
Hyalonema, 28.
Fam. 10. *Pennatulidæ*.
Pennatula, 28.
Virgularia, 28.
Renilla.
Pavonaria.
Veretillum.
- Fam. 11. *Umbellariadæ*.
Umbellaria.
Order III. POLYPIARIA.
Fam. 1. *Hydraidæ*.
Hydra.
Fam. 2. *Tubulariadæ*.
Tubularia, 29.
Eudendrium, 29.
Corymorpha.
Fam. 3. *Corynaidæ*.
Coryne.
Syncoryna.
Fam. 4. *Sertulariadæ*.
Thoa, 29.
Sertularia, 29.
Dynamena, 29.
Thuaria.
Pasythea.
Epistomea.
Lirizoa.
Plumularia, 30.
Antennularia, 30.
Cymodoce, 30.
Salacia, 30.
Idia.
Fam. 5. *Campanulariadæ*.
Laomedia, 30.
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Peripyxis, 30.
Class V.
POLYZOA.
Order IV. HIPPOCREPIA.
Fam. 1. *Cristatellidæ*.
Cristatella.
Plumatella, 32.
Fredericella.
Paludicella.
Order I. CARNOSA.
Fam. *Alcyonidiadæ*.
Alcyonidium.
Cliona, 31.
Order II. CORNEA.
Fam. 1. *Vesiculariadæ*.
Vesicularia.
- Serialaria, 31.
Pedicellaria, 31.
Valkeria.
Bowerbankia.
Lusia.
Dedalea.
Order III. CALCARIA.
Fam. 1. *Crissidæ*.
Eucratea.
Crissia, 31. *g*
Tibiana.
Tricellaria.
Notamia.
Anguinaria.
Fam. 2. *Tubuliporidæ*.
Tubulipora, 31.
Obelia, 31.
Discopora, 31.
Idmonea, 31.
Hornera, 31.
Fam. 3. *Celleporidæ*.
Cellepora, 31.
Hippothoa, 31.
Lepralia, 31.
Membranipora, 31.
Fam. 4. *Escharidæ*.
Flustra, 31.
Electra, 31.
Cellularia, 31.
Lunulites, 31.
Sabrina, 31.
Acamarchis, 31.
Farcimia, 31.
Retipora, 32.
Adeone, 32.
Eschara, 32.
Fam. 5. *Fron diporidæ*.
Fron dipora, 32.
Alveolites, 32.
? Fascicularia.
Fam. 6. *Myriaporidæ*.
Myriapora, 32.
Circopora, 32.
Fam. 7. *Polytre midæ*.
Polytrema, 32.
Fam. 8. *Orbitolitidæ*.
Orbitolites, 32.
Marginipora, 32.
Ovulites, 32.

FOURTH ROOM.

The Upright Cases round the Room contain the collection of Fish; and the Table Cases, a few specimens of the Annulose Animals to exhibit their arrangement.

The FISH are divided into those which have perfect and well formed

jaws, and those which have imperfect jaws, or the bones of the upper jaw replaced by the palatines.

The typical fishes which have distinct, separate, and well formed jaw bones, are divided into two sections, according to the structure of the ray of the fins, into the spinous and soft-rayed fishes. In the former, or *Acanthopterygians*, the front part of the dorsal and anal, and the first ray of the ventral fins are hard and spinous, while in the latter, called *Malacopterygians*, all the rays of the fins are soft, articulated, and usually divided into branches at the end, except the first ray of the dorsal fin.

The ACANTHOPTERYGIAN FISHES, or those which have spinous unjointed rays to the dorsal fins, are divided into several families by the size of the scales, the structure of the rays of the pectoral fin and the opercular bones, and the position of the teeth. Most have large well formed ovate imbricate scales.

Some of these have the lower rays of the pectoral fins not branched, and sometimes entirely or partly free and exerted.

Some of these have the bones under the orbits enlarged and articulated to the preoperculum, so as to protect the sides of the face.

The family of Gurnards (TRIGLIDÆ) have two dorsal fins, and a square shaped head. Some have three or five free rays under the pectorals, as *Trigla*, *Prionotes*, *Peristedion*. The *Dactylopteres* have very long rays under the pectoral, united together by a web, which enables the fish to support themselves in the air, and are hence called Flying Gurnards.

The family of Bull Heads (COTTIDÆ) are very like the former, but the head is round, and the lower rays of the pectoral are not separated from the rest; the ventrals are under the pectorals, and two distinct dorsals, as *Cottus*, *Hemitripteres* and *Aspidophorus*. The *Platycephali* are distinguished from the former by the ventral fins being in front of the pectorals.

The family of Hog Fish (SCORPÆNIDÆ) have oval compressed heads, which are often armed with spines, and only a single dorsal fin. The rays of the pectoral fin are all united, and the ventral under the pectorals. Some have velvet-like teeth in the jaws, vomer, and palate, as *Hemilepidotes*, *Blepsias*, *Apistes*, *Scorpena*, *Sebastes*; others have teeth in the jaws and front of the vomer, but none in the palate, as *Pterois*, *Pelors*; others have teeth only in the jaws, as *Synanceus*, *Agriopus*, *Hoplostethes*.

The family of Paradise Fish (POLYNEMIDÆ) have the simple cheeks and the opercular bones of the Perch; the lower rays of the pectoral fin are exerted and free, and the ventral fins behind the pectoral ones; their teeth are velvet-like.

The CIRRHITIDÆ have the simple cheeks and teeth and bones of the preoperculum of the Perch, their ventrals are under the pectorals and one dorsal. The *Cirrhites* have teeth on the palate, and canines among the smaller teeth. The *Cheilodactylus* have no teeth on the palate.

The remainder of these fishes have the lower ray of the pectoral fins branched like the others.

The family of Perches (PERCIDÆ) have the bone of the operculum edged with spines or small teeth; they do not cover the cheek. They have teeth on the vomer and palate. They are divided into several groups.

The first group has the ventral fins under the pectorals, five soft rays to the ventral fin, and seven rays to the opercular membrane. Some of these have two dorsals, or the dorsal fin cut down to the base so as to look like two. The Perch (*Perca*) and allied genera have velvet-like teeth. The Pike-Perches (*Lucio-Perca*) have distinct canines; others have only a single undivided dorsal fin. Some of these have canine teeth, as the *Serrani*; others, as the *Centropriestes*, have only velvet-like teeth. The *Mæna* have a very protractile mouth, and the teeth on the palate form a narrow band. The second group also have the ventral under the pectoral, five soft rays to the ventral, but they have fewer than seven rays to the opercular membrane, as the genera *Pomotis*, *Centrarchus*, *Trichodon*, *Priacanthus*. The third group are peculiar for having only five soft rays to the ventral, they have the ventral under the pectoral, more than seven rays to the opercular membrane, and only a single dorsal; their scales are very rough and strong, as the genera *Myripristes*, *Holocentrum*, *Beryx*, *Monocentris*. The fourth group have the ventral before the base of the pectoral, as the genus *Percophis*, which have canines mixed with the other teeth. The rest have only velvet-like teeth, as *Percis*, and *Pinguipes*. The *Peralepis* have the ventral fins placed behind the base of the pectorals; they have only a very small dorsal fin, like a fat fin.

The family of Mullus (*MULLIDÆ*) have many of the characters of the Perch, but they have two small distant dorsals, and their operculum covered with large deciduous scales; their operculum is not toothed, and they have two beards from the chin, as the *Mullus* and *Upeneis*.

The family of the Scienoids (*SCIÆNIDÆ*) are of the same form as the Perches; they have their preoperculum generally toothed or spinous; their jaws are slightly protractile, and they have no teeth on the vomer nor palate. Some have on the edge of the lower jaw a beard, they have also distinct dorsal fins. The *Umbranes* have only one beard, and the *Lonchurus* has two on the middle of the chin. The *Pagonias* have many bands in a row across the lower jaw, and the *Micropogons* some very small beards on the end of the lower jaw. Most have the chin destitute of beards; some of them have two dorsal fins, or the dorsal so deeply cut in as to make it appear two. The preoperculum is not denticulated, and the teeth nearly equal, as in *Nebris*, *Elegenis*. In others the preoperculum is strongly denticulated and the teeth are nearly equal. Some of them have the muzzle swollen, as the *Maigre*, *Leiostomus*, and *Eques*. Others have a simply rounded muzzle, as the *Larinus* and *Lepipterus*. *Borideus* and *Cenodon* differ from the former by having large blunt teeth in the jaws. The two following genera differ from the preceding in being furnished with strong prominent canine teeth, as *Otolithus*, *Ancylodon*. The rest of the Scienoids have only a single dorsal fin; some have as many as seven rays to the gill membrane. The *Hemulons* have a pit and two small pores under the chin, and the vertical fins scaly. The *Pristinomes* have the same pores as the former, but the fins are not scaly, and the *Diagrames* have four or six pores under the chin. Others have, as is generally the case with other fishes, only five or six rays to the gill membrane, the lateral line is continued to the tail. The *Lobotes* have a short muzzle, the

dorsal and anal prolonged behind, and the preoperculum strongly toothed. The *Scolopsides*, the second suborbital has a spine behind, crossing under the orbit the one arising from the front of the third. The *Latilli* have a nearly vertical profile and an elongated body. The *Macquaries*, on the other hand, have a cavernose head and toothless jaw. Others have the lateral lines interrupted under the end of the dorsal fins. Some of these have the preoperculum toothed, as the *Amphiprions*, which has all the other processes of the operculum toothed, and the teeth in a single row. The *Premnades* have the teeth like the former, and the suborbital bones with a spine. The *Pomacentres* and the *Dascyli* have the other bones of the operculum simple, the former having a single series of teeth, and the latter numerous small velvet-like ones. The remaining genera have no teeth on the operculum. The *Glyphisodons* and the *Hetroples* have only a single row of teeth, the former having only two or three, and the latter many spines to the anal fin. The *Heliases* have numerous small velvet-like teeth.

The Sparoid Fishes (SPARIDÆ,) are very like the former in form and appearance, but their opercular bones are not spinous or toothed, the palate is toothless, and the mouth is not protractile. Some have only velvet-like teeth, the outer row being rather the largest, as *Cantherus*. Others have conical or tubercular teeth intermixed with the others; *Lethrinus* is peculiar for having naked cheeks without any of the scales usually found on the other genera, as the Sarges (*Sargus*), *Charax*, *Chrysophris*, *Pagrus*, *Pagellus*, *Dentex*, and *Pentapus*. The *Smaris* have a very protractile mouth, and the *Cæsiæ* only differ in the base of the dorsal being surrounded with some fine scales. The *Boops* and the *Oblades* have a single row of flat crenulated teeth in front, the latter having velvet-like teeth behind them, which are wanting in the former. The *Scathari* have only a single row of entire flat teeth, and the *Crenidens* have two rows of flat notched teeth, and others within them. These four latter genera have no rounded grinders.

The family of Labroid fish, (LABRIDÆ,) so called from the large size of the double fleshy lips which cover their teeth, have the general form of the Perches; the body is oblong, covered with large cycloid scales, and has only a single dorsal fin, which is spinous in front, and furnished with membranaceous appendages. The jaws are armed with large teeth; their colours are generally exceedingly brilliant, and from usually living on rocky shores they are commonly called Rock Fish. Some are oblong, with double lips and a shelving forehead; their palatine teeth are large and pavement-like, as *Labrus*, which has a nearly straight lateral line. The *Cheilinus* has the lateral line interrupted near the end of the dorsal. The *Lachnolaimus* has the front ray of the dorsal very long and flexible. The *Jules* have the head smooth without scales, and the lateral strongly curved behind. The *Anampses* differ from the former in their mouth being produced and only two flat teeth in the palate. The *Crenilabrus* are peculiar for having the edge of the preoperculum toothed. The *Coricus* only differs from them in having the mouth protractile, and the *Epibulus* has the jaw still more protractile; the lateral line is interrupted. The *Clepticus* has a short cylindrical mouth, and the *Gomphoses*, a very long one in the shape of a tube. The Dolphins (*Xirichthys*) differ from the *Labri* in the forehead being

high and the body compressed, thin ; their bodies are covered with large scales. The *Chromis* have most of the characters of the *Labri*, but the teeth of the jaws and palate are small and hooked ; the rays of their vertical fins are produced and thread-like. The *Plesiops* have a compressed head, their eyes close together, and the ventral very long. The *Malacanthus* are like the *Labri*, but the front rays of the dorsal are thin and flexible, and the palatine teeth are small and hooked. The Parrot fish (*Scarus*) have large parrot-like jaws, covered with scale-like teeth. The *Calliodon* have the teeth on the side of the upper jaw separate and pointed. The *Odax*, with the teeth of the *Scari*, have much the appearance of the *Labri* ; their lateral line is continued. Lastly, the *Gerres* are peculiar for having protractile jaws ; their body is high, especially in front of the dorsal, the hinder part of which is enclosed in a scaly sheath ; their teeth are velvet-like.

The Wandering Fishes (*Anabasidæ*) have all the characters of the Perches, but the upper part of their pharynx is divided in more or less numerous, irregular small leaves, which intercept the passage of the water from the gills, and keep them moist, while these fish are left dry, or forsake for a time the ditches or ponds in which they usually live ; they have only a single dorsal fin. The *Anabas* has a long dorsal fin and radiating ventral ones. The *Polyacanthus* and the *Helostomes* have a long dorsal fin and filiform elongate ventral ones ; the former has velvet-like teeth in the jaw, and the latter have none. They are all from India. The *Spirobranchus* are like the *Anabas*, but their preoperculum is toothless, and the operculum ends in two points ; from South Africa. The *Macropodes* have a short dorsal fin and longer anal fin. The Gourami (*Ospromenus*) have the short dorsal of the former, but the first soft ray of their ventral is very much prolonged. They have only six gill-rays. The *Trichopus* differs from the latter in the dorsal being shorter, the forehead more convex, and they have only four gill-rays ; all these fish but the *Spirobranchus*, which come from South Africa, are confined to the ponds of Tropical Asia.

The Sea Mulletts, (*MUGILLIDÆ*), from the peculiarity of their form, have been separated into a distinct family, characterized by having two dorsal fins, large scales, and a very broad flat head, and covered with polygonal plates ; they have two separate dorsal fins, the first being provided with only four rays ; their ventrals are placed rather in front of the base of the pectorals ; they are furnished with a gizzard, like birds, and live at the mouth of rivers, making high leaps.

The family of *OPHICEPHALIDÆ* agrees with the former in many characters, especially in having the same conformation of the pharynx, but they have no spines but only simple rays in their fins ; their body is elongate, the muzzle short, head scaly ; their dorsal and anal fin is long. They are very difficult to kill, and are kept by the fishermen in India and China to divert the people, shewing them walking on the earth. They are perhaps more allied to *Amia*.

The family of *Atherines* (*ATHERINIDÆ*) are peculiar for having a broad silver band on each side of their elongated body. They have two dorsals very far apart, the ventral behind the pectorals. A very protractile mouth with small teeth, as *Atherina*.

The family of *TETRAGONURIDÆ* have an elongate body covered with

hard, toothed, and striated scales; the base of the tail is marked with two prominent keels, the dorsal fin is low, long, and spinose, the lower jaw fits into the upper; both are furnished with a single row of small teeth. They are found in deep water.

The family of Chætodons (CHÆTODONIDÆ) are known by their compressed form, and by their dorsal, and often their anal fins being covered with scales like the rest of the body. The teeth are very small and numerous, resembling bristles, from whence the name. Their palate is generally toothed. They are numerous in warm climates, beautifully coloured, and their flesh is good food. The common Chætodons (*Chætodon*) have their opercular bones finely ciliated, while the Horned Chætodons (*Holacanthus*) have the lower part of the operculum ending in a large spine. These fish are very numerous on the rocky shores of the seas of warm climates. They are generally beautifully and variously coloured, and good for food. Many are rejected from prejudice.

The family of Pimelepteres (PIMELEPTERIDÆ) are very like the former in shape and structure, but they have teeth with sharp cutting edges.

The family of Sea Breams (BRAMADÆ) are like the two former families in the form and structure of the fins, but they have small velvet-like teeth in the jaws and palate.

The family of Scomberoid Fish (SCOMBEROIDÆ) have a smooth skin covered with a multitude of small cycloide scales, and a large caudal fin. The opercular pieces are unarmed, and their vertical fins are generally destitute of scales. They are much used as food, and afford great employment to the fishermen. They are divided into several groups according to the form of the fins, &c.

The first group have the hinder rays of the dorsal and anal fin separated into small fins, and the lateral line unarmed. The Mackarel (*Scomber*) has two ridges on each side of the tail, two dorsals, and equal sized scales. The *Auxides*, *Thynnus*, and *Pelamus* have a single ridge on the side of the tail, and the scales of the sides larger than the rest, forming a corselet. The first has two separate dorsals, the others have the dorsal close; the former have small and the latter large strong teeth. The Tassards (*Cybium*) differ from the three latter genera in having uniform small scales and sharp teeth. The other genera of this group have no keel on the side of the tail, large sharp teeth in front, and uniform small scales. The *Thersites* have two dorsals and a small ventral. *Gempyles* two dorsals and very small ventral. The *Lepidopus* a single long dorsal, scale-like ventrals, and a distinct caudal. The *Trichiurus* a single dorsal, and no caudal nor ventral fins.

The second group has the muzzle elongated into a spike, and small velvet-like teeth. The Pike Fish (*Tetrapturus*) have two keels on each side of the tail and long narrow ventrals. The Sword Fish (*Xiphias*) has only a single keel on the base of the tail and no ventrals, and a low dorsal, which diminishes in length as the animal grows; and the Flying Sword Fish (*Notistium*) differs from the latter in having slender ventral and a very high large dorsal fin, which enable it to swim with such velocity that it can drive its beak through the stout oak planking of a ship; a piece of oak so pierced by the beak of a large specimen is exhibited.

The third group differ from the former in the rays of the first dorsal fin being separate and isolated spines. The Pilot Fish (*Pilotes*) has a keel on each side of the tail. The *Elacates* are oblong fish, without any keel on the side of the tail. The *Lichia* are compressed with a swollen profile; their two anal fins are continued. The *Trachinotus* only differs from the last in the muzzle being blunt. The *Chorinemi* differ from the two preceding in the rays of the anal and the second dorsal fin being separate. The *Apolectus* has the ventral fins placed on the throat. The *Notacanthus* has the ventral fins behind the pectoral; they have no second dorsal, and a long anal fin united to the caudal. The *Rhyncobdella* are elongated subcylindrical fish, without any pectoral fins, with a concave muzzle. The *Masticetus* differ from the latter, in having a conical muzzle. The Spicklebacks (*Gasterosteus*) differ from all the former in the bones of the pelvis being united to the enlarged bones of the humerus, forming a kind of bony corslet; their ventrals are placed behind the pectorals, and reduced to a single spine. The Sea Spicklebacks (*Gastrus*) have the lateral lines furnished with scales and the ventral has two small rays besides the spine.

The family of ZEIDÆ are very like the former, but the bodies are very high and compressed, and the mouth has a few small erect teeth; the scales are very small and satin-like. The mouth of the *Zei* are protractile, and of the *Stomatei* are not so. The *Coryphæna* have rather larger scales, seven gill rays, and large dorsal fin.

The family of GYMNETRIDÆ have an elongated body covered with minute satin-like scales; they have a very long ventral fin, and the caudal fin is placed on the upper side of the tail.

The family of Theutides (THEUTIDÆ) combine with the small scales of the Scomberoid Fish the form and small mouth of the Chætodon, but are furnished with a single row of teeth with cutting edges, and their fins are not scaly. They live on fuci and other marine vegetables. Several of the genera have sharp retractile spines on the sides of the tail, which when drawn back are received in a groove, and from the wound they inflict they are often called Lancet Fish, or Surgeons. The Monoceros (*Naseus*) has the spines on the sides of the tail fixed and blunt and the front part of the head produced into a horn.

The family of Pipe Fish (SYNGNATHIDÆ) differ from most other fish in their gills being divided into little tufts, placed by pairs on the bony branchial arches, instead of being formed of regular pectinated plates. Their body is also covered with shields, which give it an angular appearance. In the true Pipe Fish (*Syngnathus*) the mouth is situated at the end of a tubular beak. The eggs in some species are hatched in a sort of bag, formed by a puffing up of the skin under the abdomen, or at the base of the tail, which splits asunder to allow the escape of the young. Many of the species are straight, but some contract after death, so as to form a grotesque resemblance to a horse in miniature, whence they are called Sea Horses (*Hippocampi*.) The Pegasi (*Pegasus*) differ from them by the mouth being placed at the base of a prominent muzzle. The ventral fin of some of the species of this genus is very large and expanded, whence their name.

The tubular-mouthed fishes (FISTULARIDÆ) are so called from the

mouth being elongated into a tube, as the Tobacco-pipe Fish (*Fistularia*).

The family of Blennies (BLENNIIDÆ) are elongated fishes, with a single dorsal, almost entirely supported by simple flexible rays. Their scales are cycloide, like the *Gadida*. Their ventrals consist of only two, or rarely three rays, and are placed before the pectorals; they emit an abundance of mucus; many are viviparous, and both sexes have a tube near the vent. Some have only two rays to the pectoral, as the *Blennius*, which has long equal close teeth, and a blunt head. *Myodes* have an elongated head and long muzzle. *Salarias* have a single row of very fine compressed teeth; the head is high and compressed. The *Clinus* has the teeth placed in many rows, and the muzzle is blunt. The *Cirrhobarbes* differ from the former in having velvet-like teeth and beard on different parts of the head. The *Murænoides* has scarcely any ventrals, and an elongated body. The *Ophistognathus* has three rays to the ventral. The *Zoarci* are quite destitute of any spinous rays, their dorsal, anal, and caudal fins are united. The Wolf Fish (*Anarrhichas*) only differs from the other Blennies in having no ventral fins; the jaws and palate are armed with large tubercular teeth, to which the fossil Bufonites were formerly referred. The gall of this fish is used as soap by the Icelanders, who compare its flesh to that of the eel.

The family of Gobies (GOBIIDÆ) have the same simple flexible rays to the dorsal, and viscera as the former family, but the ventral fins are united together under the chest, forming a more or less conical cavity, and the scales are toothed like the Perch; the gill cavity is partly closed. They live on the sea-shore, and can bear being a long time out of water. *Gobius* have the ventral united their whole length; their body is long, and head rounded; the back has two dorsals, the hinder long; they form a nest of sea plants, and defend their young. The *Goboides* have the two dorsals united into one. The *Tanioides* have a very long body, and nearly perpendicular mouth, and very small eyes. The *Amora* have the preopercular ending in a spine, like the Weavers. *Periophthalmus* have a scaly head, with very close vertical eyes, with a lower lid, their pectoral fins are on short arms. They live long out of water. Others have the ventral nearly separate, as the *Eleotris*; their head is depressed, the eyes far apart, and the first dorsal fin short and high. The *Batrachi* have a very large flattened head, the operculum and preoperculum spinose, and the pectoral fins with short arms; the first dorsal is short, supported by three spinose rays. The *Cæpoli* have an elongated body, convex head, and large erect mouth; the dorsal fin is elongate, and the first rays of the ventral are only spinose; the abdominal cavity is short.

The Lyre fish (CALLIONYMIDÆ) are very like the two former in most particulars, but the gill opening is reduced to a small hole on each side. Their ventral fins are placed under the throat, far apart, and larger than the pectorals; the head is depressed, the intermaxillaries protractile, and the preoperculum produced behind into spines. The skin is smooth, and the front rays of the dorsal are elongated. *Callionymus* have two dorsals, the first high. *Trichonotus* have only a single dorsal. The *Comephores* have a low first dorsal, very large

pectoral, and no ventrals. They are collected on the shores of Lake Baikal dead after storms, to make oil.

The family of *Platypteres* (PLATYPTERIDÆ) have the large separate ventrals of the former, a short broad head, with open gill-flaps, large scales, a small mouth, and two short distant dorsal fins. They live in the mountain rivers of Asia.

The Remoræ (ECHENEISIDÆ) have been referred to the soft-finned, subbrachian fishes. They are known by the top of the head being flattened, and furnished with transverse series of cartilaginous plates, (somewhat similar to the plates under the toes of the Gecko,) by which these fish attach themselves to ships, rocks, and marine bodies. Agassiz considers this disk as a modification of the spinous front dorsal fin.

The family of *Labrax* (CHIRUSIDÆ) have an elongated body covered with large ciliated scales, with several series of pores, as if they had several lateral lines; the head is small unarmed, the mouth small, and an elongated dorsal, supported by thin rays; their ventrals have five soft rays. They come from Kamschatka.

The family of Anglers (LOPHIIDÆ) have many characters in common with the former, but they have the bones of the carpus or wrist elongated, so that the pectoral fin appears to be placed on an arm. Their skeleton is very soft, nearly cartilaginous, and their skin destitute of scales. They are very voracious, and from the small size of the opening of the gills, can live a long time out of the water.

The common Angler (*Lophius piscatorius*) has an enormous, flattened head, forming the chief bulk of the fish, and a tail so compressed on each side that the creature seems composed of little else than head and tail. On the former, before the eyes, are two long rays, or filaments, of a horny substance, and four others, of a similar nature, but shorter, on the back, and the lower jaw is furnished with numerous vermicular appendages, or tentacula. This animal, according to Bloch, conceals itself amongst marine plants, or behind hillocks of sand, rocks and stones, when it opens its great mouth, and attracts the fish as they swim by, by wriggling the long filaments on its head, which they mistake for worms, and attempting to seize them, fall an easy prey to their voracious and subtle enemy. The hideous appearance of its monstrous, and almost constantly open mouth, well armed with teeth, has probably gained for the Angler the vulgar name of Sea Devil. The Hand Fish (*Chironectes*) has a compressed head and body, a smaller mouth, and the first dorsal fin placed between the eyes. The first ray of that fin is often free, and terminates in a series of small tentacula which the fish uses as a bait for taking its prey, after the manner of the Angler. It has the faculty of inflating its large stomach with air and giving itself the form of a balloon, like several of the *Gymnorodontes**; and by means of its pedicelled pectoral fins can crawl on land; it can exist two or three days out of the water. The Beaked Angler (*Malthe*) has its head flattened, and the muzzle produced into a short horn.

The MALACOPTERYGIANS, (*Malacopterygia*,) or soft-finned fish, which form the second division of this Class, are characterized by all

* See p. 146.

the rays of the fins (except the first of the dorsal and pectoral fins) being soft, jointed, and usually divided at the end into several branches. This division has been separated into groups, according to the position of the ventral fin.

Those of the first group, containing most of the fresh water fish, have the ventral fins situated behind the pectorals.

The first family (CYPRINIDÆ) have a small mouth, feeble and generally toothless jaws, whose margin is formed by the intermaxillary bones; a strongly-toothed pharynx, and a soft rayed fin on the back, but no adipose dorsal fin. These fish mostly feed on water-plants. Amongst them are the Carp (*Cyprinus*), Tench (*Tinca*), Bream (*Brama*), Barbel (*Barbus*), Loach (*Cobitis*), and the *Anableps*; the latter is peculiar for the eye being divided across, so that it appears to have four eyes, similar to the Gyrini among the water-insects. The female is viviparous.

The family of Pikes (ESOCIDÆ), also are without any adipose dorsal fin, and the upper jaws are edged by the intermaxillaries. In most of the genera, the dorsal fin is placed opposite the anal. They are generally voracious, and prey on smaller fish. In many of these the jaws and palate are full of teeth, as in the common Pike (*Esox lucius*); in others, as the Gar-Fish (*Belone*), the jaws are slender, and very much elongated. In one genus, the Half-Beak (*Hemiramphus*), the lower jaw alone is elongated and the mouth oblique, and placed at its base. The Flying-Fish (*Exocetus*) belong to this family; they inhabit the seas of warm and temperate climates, and are peculiar for the great length of the pectoral fins, which enables them to suspend themselves in the air as long as the fins continue moist. On leaving the water to escape from the pursuit of their enemies in that element, they often become the prey of birds, which are continually on the watch to attack them.

The Mormyri (MORMYRIDÆ) are fresh water fish of Africa, like the Pikes, but they have a small mouth, and the gill-flap hid under the skin.

The Siluroid Fish (SILURIDÆ) have a naked skin, in which large bony plates are frequently imbedded. They have often an adipose dorsal fin, and their intermaxillaries form the margin of the upper jaw, their maxillaries being reduced to mere vestiges, or elongated into little beards.

Many of these have the first ray of the pectoral fin very strong and bony, and the animal has the power of fixing it immoveably, so that it forms a dangerous weapon, and the wound inflicted by it is said to be venomous; but this, perhaps, greatly depends on the liability of persons in warm climates to tetanus or locked jaw from penetrating wounds. They live chiefly on vegetable food, especially seeds. Their flesh is very fat, and much used as food; but that of some species, as the Shals (*Synodontes*) of Senegal, is reputed to be dangerous. The skin of some of the genera, as the Callichtes (*Callichtes*), is covered with four rows of large imbricated scales, which protect the body like scale-armour; and others, as the Loricaria (*Loricaria*), have the body entirely covered with a hard coat, formed of angular scales.

The Salmon (SALMONIDÆ) have, like most of the *Siluri*, an adipose

hinder dorsal fin, but the body is covered with regular scales. They principally ascend rivers to spawn. They are voracious, and prey on insects and small animals. This family has been divided into several genera, according to the form and presence of the teeth, and the position of the fins.

The Herrings (*CLUPEIDÆ*) have a scaly body like the Salmons, but no adipose dorsal fin, and their upper jaw is formed in the middle by the intermaxillary, and on the sides by the maxillary bones.

With the Herrings are placed the Bony Pike (*Lepisosteus*), which has many of the characters of the Pike, with the structure of the head of the Herring. The body is covered with a case formed of very hard square scales, and the two outer rays of the tail and of the other fins, are fringed with similar scales. They live in the warm parts of America, and afford good food.

The second division of this order contains those fishes whose ventral fins lie immediately under the pectorals. It contains three families, distinguished by the shape of the body.

The family of Cod-Fish (*GADIDÆ*) have a lance-shaped body, covered with small scales. The head is without scales, and the back has generally two or three dorsal fins; the ventral fins are always slender. They generally live in the seas of cold and temperate climates, and by their abundance are important as objects of commerce. They are divided into several genera, according to the number of the fins.

The true Cod (*Morrhua*) has three dorsal fins and a small beard; the Coal-Fish (*Merlangus*) has also three dorsal fins, but no beard; while the Stock-Fish (*Merluccias*) has only two dorsal and one anal fin. The Ling (*Lota*) differs from the latter in having a beard, while the Torsk (*Brosmius*) has only a single long dorsal fin.

The family of Flat-Fish (*PLEURONECTIDÆ*) are peculiar amongst all the vertebrated animals, in having both eyes placed on one side of the head, which side is always uppermost when the fish swims, and strongly coloured, whilst the other is white. The body is compressed, fringed above by a long dorsal, and below by an anal fin. They live constantly in shallow water, near the shore. They are liable to varieties; sometimes both the upper and under side are dark-coloured, and at others both are pale rosy white. When both the sides are brown, the fins are interrupted over the forehead, and the eyes are placed one on each side of the head of the fish. These fish have been divided into several genera, according to the length of the dorsal, and the distinctness of the pectoral fins. Some, as the Zebra Sole (*Plagusia*), are entirely without pectoral fins, and have the anal, caudal, and dorsal united into one.

The third family of this division are the Suckers (*CYCLOPTERIDÆ*), so called from the pectoral fins being united together into a disc, by which they attach themselves to marine bodies. Their skin is slimy and naked, or with hard grains embedded in it. The pectoral fins are large. They live in shallow water, near coasts, and swim with great vivacity.

The second group of soft-finned fish consists of those which have no ventral fins (*Apoda*).

The first family of these are the Eels (*MURÆNIDÆ*), which have a long slender body, covered with small scales sunk into a thick slimy skin. Their gill-flaps are small, surrounded by the gill-rays,

and covered with the skin, leaving merely a small tubular opening for the emission of the water. This structure enables the fish to live a long time out of water. They have been divided into several genera, according to the teeth and the proportion of the fins. In most of the species, the dorsal and anal fins are long and united together; in others they are short and quite separate (*Moringua*); and in some they are entirely wanting. In one genus (*Synbranchus*), the gill-flaps only open by a single aperture in the under side of the neck.

The Gymnoti (GYMNOTIDÆ) have the gill-flap covered with a membrane, like the Eels; but this membrane is open behind the pectoral fins. These fishes have no dorsal, but a long anal fin. In some the body is eel-shaped and naked, as in the Electric Gymnotus (*Gymnotus electricus*). In the Carapi (*Carapi*) the body is compressed and covered with scales. The Gymnarchi (*Gymnarchi*) differ from the Carapi merely in having a long dorsal, and no anal fin. The Morris (*Leptocephalus*) is very peculiar for the exceeding thinness of its body, which resembles a riband, and is nearly as transparent as glass; its fins are scarcely visible, and its intestines occupy merely a very narrow line along the lower edge of the body.

The Launces (*Ammodytes*) have elongated, compressed bodies, covered with scales placed in transverse series, and the dorsal, caudal, and anal fin separate from each other. The jaws are acute and extensile: they bury in the sand and live on the worms which they find in it.

The following fishes differ from all the former by the jaws being formed of the maxillary and intermaxillary bones united together into one body; and by the palatine arch being connected with the cranium by a suture, and consequently immoveable. Their skeleton is soft but fibrous.

The first of these, the Gymnodontes (or DIODONTIDÆ) have the jaws shaped like the beak of a parrot, and composed of parallel laminæ united together. They live on crustacea, shells, and sea-weeds, and their flesh, which has usually a musky odour, is said to be deleterious at particular seasons. Several of these fishes have the faculty of dilating their stomach with air, giving the body the appearance of a balloon. When this takes place they float along the surface of the water, in an inverted position. The Diodons (*Diodon*) have both jaws undivided, and the skin armed with large spines. The skin of some species of this genus is said to be used as a kind of helmet by the natives of the north-west coast of America. The Tetradons (*Tetraodon*) have the jaws divided in the centre by a perpendicular suture, and the skin covered with small, slightly prominent spines. The Triodons (*Triodon*) have the skin of the Tetradons, but the upper jaw alone is divided, so that they appear to have three teeth.

The Moon Fish, or Molæ (*Orthogoriscus*), have the same kind of jaws as the Diodons, but the body is compressed and without spines, and not susceptible of being inflated, and the tail is so short and high, that they have the appearance of being merely the head of a larger fish.

The File Fishes (BALISTIDÆ) have their jaws armed with a small number of distinct teeth; their skin is hard, and their head produced, ending in a small mouth. They are divided into several genera, ac-

according to the structure of their outer covering. The true File Fish (*Balistes*) has a compressed body covered with hard scales, and the first dorsal fin has spinous rays; its colours are brilliant, but its flesh is said to be unwholesome. It is chiefly found in the Torrid Zone, living upon sea-weeds. Others, as the Unicorn File Fish (*Monacanthus*), have the skin covered with small, hairy scales, and the first dorsal fin has only one spine. The Three-spined File Fish (*Triacanthus*) has a silvery skin covered with small scales, and a ventral fin, consisting of a single spine, on each side.

The family of Trunk Fish (OSTRACIONIDÆ) has the same elongated form as the Three-spined File Fish, and the body covered with an inflexible case, formed of regular bony compartments. It has a very large liver, which yields a considerable quantity of oil; but very little flesh. The body is often armed with spines, and according to its form, and the position of the latter, the species have been distinguished.

The cartilaginous fishes are entirely without any maxillary or intermaxillary bones, their teeth being inserted on the palate and vomer. Their skeleton is essentially cartilaginous, the calcareous matter being deposited in the cartilage, in a granular form, and not in threads or filaments; their skull is composed of a single piece, without any suture.

The Sturgeons (ACIPENSERIDÆ) have the gill-flap open like the other fishes. Their body is protected by bony plates implanted in the skin, and arranged in longitudinal rows; their mouth is small, destitute of teeth, and placed at the base of an elongated muzzle. They ascend large rivers to spawn, and furnish one of the most profitable fisheries. Their flesh is excellent; their roe, dried and salted, forms caviar, and their swimming bladder, merely washed and dried, is the common isinglass of commerce. The Spatulariæ (*Polyodon*) have a free gill-flap, like the Sturgeons, but their beak is long and spatula-shaped, and the mouth large and armed with teeth.

The Chimæræ (CHIMÆRADÆ) have great affinity to the Sharks both in external form and the position of their fins, but their gill cavity opens externally by a single hole on each side, and is covered by the rudiments of a gill-flap. Between their eyes they have a fleshy process ending in a group of small spines. They lay very large eggs, with a coriaceous shell, of an ovate-lanceolate shape with a fringed edge.

All the other cartilaginous fishes have their gills adherent to the outer side of the gill cavity, allowing the water to escape through a series of holes between each gill.

In most of these, as the Sharks and Rays, the gills are laminar. The fishes are furnished with large pectoral and ventral fins, and the mouth, which is usually placed under the end of the muzzle, is armed with teeth.

The Sharks (SQUALIDÆ) are distinguished by their elongated form, and large fleshy tail, and by the gill aperture being placed on the side of the neck. Many of them are viviparous; others produce eggs inclosed in a hard, horny shell. They have been divided into several genera according to the form of the nostrils, the position of the fins, and the absence or presence of the aperture behind the eyes. Some, as the Cestrations and Spine Sharks, have a large bony spine in the front of the dorsal fin.

The Hammer-headed Shark (*Zygena*) is peculiar for the head being flattened, truncated in front, and extended horizontally on the sides, so as to resemble a hammer. The Sea Angels (*Squatina*) have a depressed body, and the mouth placed at the end, and not beneath the muzzle. The Saw Fish (*Pristis*) have, with the long body of the Sharks, the branchial opening below, and the muzzle produced into a long blade armed on the sides with implanted bony spines. This instrument, whence they derive their name, is so powerful, that they do not fear to attack the largest cetaceous animals.

The Rays (RAIDÆ) are known by their flattened bodies, by their large fleshy and expanded pectoral fins, united in front to the muzzle, and behind to the ventral fin and the spine. The mouth of most of them is armed with tubercular teeth placed in close quincunx order on the maxillæ. Their eggs have a brown coriaceous shell, of a quadrangular form, with the angles prolonged into points. The tail of some, as the Rhinobates (*Rhinobatus*) and Rhine (*Rhina*), is thick, like those of the sharks; in others, as the true Ray (*Raia*), it is slender, and often armed by small spines. In the Sting Ray (*Trygon*) it is very long and slender, and armed with a long bony spine, serrated on both its edges. The teeth and caudal spines of these fishes are often found in a fossil state, when the former have been called palates. The Sea Eagles (*Myliobatis*) have a long tail like the Sting Rays, but their pectoral fins are very broad, so that they in some measure resemble a bird of prey with its wings extended. The teeth of the Sea Eagle are large flat plates, arranged in a tessellated form. The Cephalopteræ (*Cephaloptera*) very much resemble the Sea Eagles, but their head is truncated in front, and the anterior edge of the pectoral fin expanded like two horns. The Electric Ray (*Torpedo*) is peculiar for its fiddle-shaped body.

The last family of fishes is that of the lampreys (PETROMYZIDÆ), whose skeleton is the most imperfect of all the vertebrated animals. Their body is long, slender, and cylindrical, ending in a circular mouth, and destitute of pectoral and ventral fins. The true Lamprey (*Petromyzon*) has seven branchial openings, whence their vulgar name Seven Eyes, and the skin under the tail forms a kind of fin. Their mouth is armed with teeth. The Gastrobranchus (*Gastrobranchus*) differs from the Lamprey by the tongue only being armed with teeth, like the Lobworms. These animals emit such a quantity of mucus through the pores of the lateral lines, that it converts the water in which it is placed into a jelly.

Order I. ACANTHOPTERYGIA.

Fam. 1. *Triglidae*.

a. Trigla.

Prionotus.

Peristedion.

? Cephalcanthus.

b. Dactylopteres.

Fam. 2. *Cottidae*.

a. Cottus.

Hemitripteres.

Bembal

Oplichthys.

b. Aspidiphores.

c. Platycephalus.

Fam. 3. *Scorpenidae*.

a. Hemilepidotes.

Blepsias.

Temnistia.

Apist^s. u/

Tænianotus.

Micropus.

Scorpena.

Sebastes.

b. Pterois.

Pelors.

c. Synance^{ia}

Agriopus.

Hoplostethus.

Fam. 4. *Polynemidae*.

Polynemus.

Fam. 5. *Cirrhitidae*.

Aplodactylus.

Cirrhites.

Chironemus.

Cheilodactylus.

Fam. 6. *Percidae*.

a. Perca.

Labrax.

Lates.

Centropomus.

Grammistes.

Aspro.

Huro.

Etelis.

Niphons.

Enoplosus.

Diploprion.

Apogon.

Cheilodipterus.

Pomatomus.

Ambassis.

- Chanda.
 Priopis.
 Lucioperca.
 b. Serranus.
 Anthias.
 Merou.
 Plectropoma.
 Diacope.
 Mesoprion.
 Aprion.
 Acerina.
 Rypiticus.
 Polyprion.
 Pentaceros.
 Centroprius.
 Apsilus.
 Micropterus (Gris-
 tes).
 Pomotis.
 Bryttus.
 Centrarchus.
 Trichodon.
 Priacanthus.
 Dules.
 Therapon.
 Datnia.
 Pelates.
 Helotes.
 Nandus.
 Huro.
 Trichodon.
 Sillago.
 c. Holocentrum.
 Myripristis.
 Corniger.
 Rhynchichthys.
 Beryx.
 Holplotethus.
 Trachytys.
 Monocentris.
 d. Percis.
 Bovichtus.
 Pinguipes.
 Percophis.
 Aphitis.
 Paralepis.
 Cychla.
 Fam. 7. *Mullidæ*.
 Mullus.
 Upeneus.
 Fam. 8. *Scianidæ*.
 a. Umbrines.
 Lonchurus.
 Pogonias.
 Micropogon.
 b. Nebris.
 Eleogenes.
~~Maigren~~
 Leiostomus.
 Eques.
 Larimus.
 Lepipterus.
 Borideus.
 Cenodon.
 Otolithes.
 Ancylodon.
 Hamulons.
 Pristipoma.
 Diagramma.
 Lobotes.
 Sceloposides.
 Latillus.
 Macquaria. u
 Amphiprion.
 Premnas.
 Pomacentres. u/
 Dascyllus.
 Glyphisodon.
 Hetroplis. u/
 Heliases.
 Fam. 9. *Sparidæ*.
 Cantherus.
 Lithrinus.
 Sargus.
 Charax.
 Chrysophris.
 Pagrus.
 Pagellus.
 Dentex.
 Pentapus.
 Smaris.
 Cæzio.
 Boops.
 Oblada.
 Scatharus.
 Crendensis.
 Fam. 10. *Labridæ*.
 Labrus.
 Cheilinus.
 Lachnolaimus.
 Iulis.
 Anampses.
 Crenilabrus.
 Coricus.
 Epilulus.
 Clepticus.
 Gomphores.
 Xirichthys.
 Chromis.
 Plesiops.
 Malacanthus.
 Scarus.
 Calliodon.
 Odax.
 Gerres.
 Fam. 11. *Anabasidæ*.
 Anabas.
 Polyacanthus.
 Spirobranchus.
 Macropodes.
 Helostomus.
 Oshromenus.
 Trichopus.
 Colisa.
 Tilapia.
 Fam. 12. *Atherinidæ*.
 Atherina.
 Fam. 13. *Mugilidæ*.
 Mugil.
 Fam. 14. *Tetragonu-
 ridæ*.
 Tetragonurus.
 Fam. 15. *Chaetodo-
 nidæ*.
 Chaetodon.
 Chelmon.
 Zanclus.
 Hemiochus.
 Ehippus.
 Drepanus.
 Scatophagus.
 Taurichtes.
 Holacanthus.
 Pomacanthus.
 Platax.
 Psettus.
 Centriscus.
 Fam. 16. *Pimelepte-
 ridæ*.
 Pimelepterus.
 Dipterodon.
 Fam. 17. *Bramadæ*.
 Brama.
 Pempheris.
 Toxotes.
 Pharopteryx.
 Fam. 18. *Scombe-
 ridæ*.
 Scomber.
 Auxides.
 Thynnus.
 Pelamis.
 Cybium.
 Thersites.
 Gempyles.
 Lepidopus.
 Trichiurus.
 Tetrapturus.
 Xiphias.
 Notistium.
 Pilotes.
 Elacates.
 Lichia.
 Trachinotus.
 Chorinemus.
 Apalectus.
 Notacanthus.
 Rhychobdella.
 Masticetus.
 Gasterosteus.
 Gastrus.
 Trachinus.
 Uranoscopus.
 Sphyrena.
 Fam. 19. *Zeidæ*.
 a. Vomer.
 Olistus.
 Seyris.
 Blepharis.
 Hynnus.
 Gals.
 Argyreiosus.
 b. Zeus.
 Lampris.
 Equula.
 Chanda.
 Menes.
 c. Stomateus.
 Perprilus.
 Luvarus.
 Seserinus.
 d. Amphicanthus.
 e. Kurtus.
 f. Coryphæna.
 Caranxomorus.
 Lampugus.
 Centrolophus.
 Astrodermus.
 Pteraclis.
 Fam. 20. *Gymne-
 tridæ*.
 Gymnetrus.
 Trachypterus.
 Stylephorus.
 Lophotes.
 Fam. 21. *Theusidæ*.
 Acanthurus.
 Naseus.
 Capros.
 Fam. 22. *Syngna-
 thidæ*.
 Syngnathus.
 Hippocampus.
 Pegasus.
 Fam. 23. *Fistula-
 riadæ*.
 Fistularia.
 Aulostomos.
 Fam. 24. *Blenniidæ*.
 Blennius.
 Myxodes.
 Salarias.
 Clinus.
 Cirrhibarbus.
 Murænoides.
 Ophistognathus.
 Zoarcus.
 Anarrhichas.
 Ophidium.
 Fierasfer.
 Haliophis.
 Machærium.
 Echiodon.
 Fam. 25. *Gobiidæ*.
 Gobius.
 Goboides.
 Amblyopus.
 Amora.
 Changua.
 Periophthalmus.
 Eleotris.
 Batrachus.
 Cepola.
 Fam. 26. *Calliony-
 midæ*.
 Callionymus.
 Trichonotus.
 Comephores.
 Fam. 27. *Platypte-
 ridæ*.
 Platypterus.
 Fam. 28. *Echine-
 sidæ*.
 Echineis.
 Osteochir.
 Fam. 29. *Chirusidæ*.
 Chirus.
 Fam. 30. *Lophiadæ*.
 Lophius.
 Chironectes.
 Malthe.

- Order II. MALACOPTERYGIA.
- Fam. 1. *Cyprinidæ*.
 Cyprinus.
 Alrostomus.
 Cheilobarbus.
 Pseudobarbus.
 Labiobarbus.
 Chondrostoma.
 Barbus.
 Gobio.
 Tinca.
 Schizothorax.
 Nandina.
 Cirrhinus.
 Abramis.
 Labeo.
 Varicorhinus.
 Catostomus.
 Leuciscus.
 Chela.
 Gonorhynchus.
 Balitora.
 Cobitis.
 Garra.
 Eremophilus.
 Botia.
 Anableps.
 Poecilia.
 Lebias.
 Fundulus.
 Molinesia.
 Cyprinodon.
- Fam. 2. *Esocidæ*.
 Esox.
 Galaxias.
 Alepocephalus.
 Diplopterus.
 Microstoma.
 Stomias.
 Chauliodus.
 Salanx.
 Belone.
 Scombrosox.
 Hemiramphus.
 Exocetus.
- Fam. 3. *Mormyridæ*.
 Mormyrus.
- Fam. 4. *Siluridæ*.
 Silurus.
 Glanis.
 Schilbe.
 Acanthonotus.
 Mystus.
 Pimelodes.
 Bagrus.
 Hypophthalmus.
 Synodontis.
 Sisor.
 Ageneioses.
 Doras.
 Heterobranchus.
 Clarias.
 Plotoses.
 Callichthys.
 Melapterurus.
 Ailia.
 Aspredo.
 Chaca.
- Loricaria.
 Hypostomus.
- Fam. 5. *Salmonidæ*.
 Salmo.
 Osmerus.
 Mullotus.
 Thymallus.
 Coregonus.
 Argentina.
 Characinus.
 Curimatus.
 Anostomus.
 Gasteropelecus.
 Piabuca.
 Serrasalmo.
 Tetragonopterus.
 Chalceus.
 Myletes.
 Hydrocyon.
 Citharinus.
 Saurus.
 Leucosoma.
 Scopelus.
 Aulopus.
 Stenoptryx.
- Fam. 6. *Clupeidæ*.
 a. Clupea.
 Alosa.
 Chatoessus.
 Corica.
 Koma.
 Odontognathus.
 Pristigaster.
 Notopterus.
 Raconda.
 Engraulis.
 Coilia.
 Thyssa.
 Megalops.
 Elops.
 Butirinus.
 Chirocentrus.
 Hyodon.
 b. Erythrinus.
 Amia.
 Ophiocephalus.
 Sudis.
 Osteoglossum.
 c. Lepisosteus.
 Polypterus.
- Fam. 7. *Gadidæ*.
 Gadus.
 Morrhua.
 Merlangus.
 Merluccius.
 Lota.
 Motella.
 Brosmius.
 Brotula.
 Physis.
 Raniceps.
 Macrourus.
- Fam. 8. *Pleuronectidæ*.
 Plestesa.
 Hippoglossus.
 Rhombus.
 Pleuronectes.
- Psettus.
 b. Solea.
 Monochir.
 Achirus.
 Plagusia.
- Fam. 9. *Cyclopteridæ*.
 a. Lepadogaster.
 Gobiesox.
 b. Cyclopterus.
 Liparis.
- Fam. 10. *Murænidæ*.
 Anguilla.
 Conger.
 Ophisurus.
 Gymnothorax.
 Murænocephalus.
 Ichthyophis.
 Gymnomuræna.
 Nettasoma.
 Leptorhynchus.
 Sphagebranchus.
 Apterichtes.
 Monopterus.
 Synbranchus.
 Ababes.
 Saccopharynx.
- Fam. 11. *Gymnotidæ*.
 Gymnotus.
 Sternarchus.
 Gymnarchus.
 ? Leptocephalus.
 ? Ammodytes.
- Order III. PLECTOGNATHI.
- Fam. 1. *Diodontidæ*.
 Diodon.
 Tetraodon.
 Triodon.
 Orthogoriscus.
- Fam. 2. *Balistidæ*.
 Balistes.
 Monacanthus.
 Anacanthus.
 Aluterus.
 Triacanthus.
- Fam. 3. *Ostracionidæ*.
 Ostracion.
 Acarama.
- Order IV. CHONDROPTERYGIA.
- Fam. 1. *Acipenseridæ*.
 Acipenser.
 Sturio.
 Spathularia.
- Fam. 2. *Chimeridæ*.
 Chimera.
 Calliorhynchus.
- Fam. 3. *Squalidæ*.
 Squatina.
 Acanthias.
 Spinax.
 Centrina.
 Centrophorus.
 Lepidorhinus.
 Scymnus.
 Læmargus.
 Echinorhinus.
 Heptranchias.
 Notidanus.
 Triglochis.
 Selache.
 Carcharodon.
 Oxyrrhina.
 Lamna.
 Alopias.
 Rhineodon.
 Sphyrna.
 Squalus.
 Thalassorhinus.
 Scoliodon.
 Galeocerdo.
 Physodon.
 Loxodon.
 Galeus.
 Mustelus.
 Cestracion.
 Triakis.
 Leptocharias.
 Trienodon.
- Fam. 4. *Raidæ*.
 a. Cephaloptera.
 Ceratoptera.
 b. Rhinoptera.
 Ætobatis.
 Myliobatis.
 c. Urogymnus.
 Anacanthus.
 d. Urolophus.
 Hypolophus.
 Tæniura.
 Pteroplatea.
 Hemantura.
 Hemitrygon.
 Trygon.
 e. Uraptera.
 Sympterygia.
 Raia.
 f. Temera.
 Astrape.
 Narcinæ.
 Torpedo.
 g. Trygonorhina.
 Platyrrhina.
 Rhinobatus.
 Rhychobatus.
 Rhina.
 h. Pristes.
 Pristidophorus.
- Fam. 5. *Petromyzidæ*.
 Petromyzon.
 Myxines.
 Gastrobranchus.
 Ammocætes.
- Fam. 6. *Amphioxidæ*.
 Amphioxus.

The Table Cases contain a selection of ANNULOSE ANIMALS to illustrate their arrangement; the General Collection being kept in cabinets in a private room for study. These animals are called *annulose*, or ringed, because they are covered with a hard skin, which is divided by transverse contractions into rings, which enables the body to move in every direction. This skin falls off as the animal increases in size, a new soft one being formed beneath it, which hardens on exposure to the air. The outward form is often greatly altered each time they change their skin, until they arrive at their full size. They are furnished with three or more pairs of jointed legs for locomotion, and sometimes with wings for flight; but these organs are often only exhibited when the animal is in a perfect state of development.

The *winged annulose* animals, (PTILOTA,) Cases 1—10, to which the name of INSECTS is most generally confined; in their last and perfect state they have only three pairs of true legs, and in most instances two pairs of wings. They generally undergo a great change in appearance before they assume this perfect state. These insects are divided into two great groups, according to the form of their mouth, some being provided with jaws (*Mandibulata*) for gnawing their food, while others have only a trunk or proboscis, (*Haustellata*), and live by suction.

The *Jaw-bearing Insects* (MANDIBULATA, Cases 1—4) are divided into orders, according to the form and structure of their wings.

The *Coleoptera*, or Beetles, (Cases 1—3,) have generally two hard horny wing-cases, or shards, united by a straight line, and covering two folded transparent wings, with which they fly. This order contains some of the most brilliant insects, as the Diamond-beetle, Buprestis, &c.

The *Orthoptera*, (Cases 3 and 4,) the upper wings of which are generally like parchment, and fold over each other at the edge, as the Cockroaches, the Praying Insects (*Mantis*), Walking Sticks (*Phasma*), Crickets, and Locusts. In the latter Case are also exhibited the *Neuropterous* Insects, which have usually two pairs of similar netted wings, as the Dragon-flies, Ant-Lion, &c., and the *Hymenopterous* Insects, which have four wings, with fewer nervures than in the preceding order, and all taking their origin from the base of the wings; the body of the female ends in an egg-depositor, or sting, as the Ichneumon, Ant, Wasp, Bee, &c.

The Suctorial Insects (HAUSTELLATA, Cases 5 to 10) have only a trunk or proboscis.

The *Lepidopterous Insects* (Cases 5 to 9) have their wings for the most part covered with a series of minute scales, which are very finely and microscopically striated, and reflect most beautiful colours. Some, as the Butterflies, (*Papilionidæ*), fly by day, and have club-shaped antennæ. (Cases 5 and 6.) Others, having prismatic antennæ, generally fly just before sunset, as the Sphinges or Hawkmoths. (Case 8.) Those which chiefly fly in the evening, and have pectinate, or filiform antennæ, as the Moths, are in Cases 8 and 9.

The *Dipterous Insects*, (Case 10,) which have only two transparent wings with radiating ribs, the under pair of wings being replaced with *halteres*, or balancers, as the Crane-fly, Bluebottle, &c.

The *Hemipterous* insects, so called because in some the lower half

of the upper wing is like parchment or leather, and the other half membranaceous, like the lower pair, are in the 11th Case, as the Shield-bugs, Fire-flies (*Fulgora*), &c.

The **APTEROUS**, or **WINGLESS INSECTS**, generally have four or five pairs of legs, and sometimes many more. They are always destitute of wings; and the chief alteration that takes place in their approach towards maturity, is, that they gain additional legs; this change sometimes takes place at a very early age, which has caused some naturalists to believe that they do not undergo any metamorphosis.

The **ARACHNIDA** (Cases 11 and 12) differ from the true insects in the head and thorax being united into a single mass, as well as in having more numerous legs and no wings. Some have pulmonary sacs, which fulfil the functions of lungs, with a heart, veins, and very distinct vessels: these have six or eight simple eyes, and from the manner in which they respire, are called *Pulmonariæ*, as the various kinds of true Spiders. By the side of the kind of Spider that forms it, is placed the tubular case of one of the earth spiders, which forms a door to its tube that falls down to close the cavity when the animal is within. The other *Arachnida* respire by tracheæ, or air tubes, which traverse their body, as is the case with insects in general. The organs of circulation are wanting or very incomplete. They have two, or at most but four, simple eyes, and have been called *Tracheariæ*. Among these are the *Tarantulæ*, Scorpions, &c.

The **MYRIAPODES**, or Centipedes, are so called on account of the number of their legs. They have generally twenty-four or more, arranged along the entire length of the body, on a series of rings, each bearing one or two pairs. The first, and in several even the second pair of legs seem to form a part of the mouth.

These animals bear some resemblance to little snakes and Nereides, from their feet being so closely applied to each other through the whole extent of the body. The number of the rings and the feet increases with age, a character which distinguishes them from the true Insects, which always have the same number of rings from their being first hatched to their adult state; all the true legs, which are furnished with hooks, are developed at once, either when they are hatched or when they pass into the Pupa state, while the *Myriapodes*, when they leave the egg, are destitute of these organs. The *Myriapodes* live and increase in size longer than most other terrestrial Annulosa, for according to Savi, they require two years before the reproductive organs are developed. They are divided into two orders, which have very distinct external characters.

The *Chilognatha*, or *Iuli* of Linnæus, have a cylindrical crustaceous body with clavate tentacles, formed of seven joints, and two thick jaws without palpi, as the genera *Glomeris*, *Iulus*, and *Polydesmus*. They are slow-gliding animals, and roll themselves up spirally, or into a ball. They feed on dead and decomposed animals and vegetables, and some of the species emit a luminous secretion.

The *Chilopedes* have a depressed membranaceous body, with a coriaceous plate on the back of each ring, the last bearing a pair of long tail-like legs. Their antennæ are slender, tapering at the tip. Their jaws bear little palpiform appendages. They run very fast, living under stones, avoiding the light, and eating the remains of animals. The

larger species are dreaded in warm climates, and some are phosphorescent, as the genera *Scutigera*, *Lithobius*, and *Scolopendra*.

The CRUSTACEA, Cases 13 to 22, are the only Annulose animals with jointed feet that respire by gills; these gills are generally placed near the base of the legs, and are protected by the border of the thoracic shell, or carapace, but in a few they are external. They are the giants among the Annulosa, and all live in the water. Some few leave it for a short time in search of food, but they return to it to breed and respire. Many kinds are found in a fossil state.

The more typical Crustacea have their eyes placed on a peduncle (*Podophthalmia*) furnished with a faceted cornea, and the rings of the thorax are covered by a common shell. Among these, by far the greater number are called *Decapodes*, because they have five pairs of feet, with the gills at their base under the thorax, and five pairs of feet-like jaws. Their head is covered with the same hard common case as the thorax.

The Crabs (Cases 3 to 19) differ from the Lobsters and Prawns in their caudal rings being less developed, and bent under the hinder part of the greatly expanded thorax.

Amongst these short-tailed *Crustacea* are specimens of the Swimming Crabs of the genera *Portunus*, *Podophthalmus*, &c. These animals have the posterior leg terminated by very flat joints, of an oval or orbicular form, and calculated to act as fins in swimming. The last pair of legs in all the Swimming Crabs, is constantly furnished with these flattened joints, and in some species the preceding pairs have them also, but never so broad as those of the hind legs. The eyes of the Telescope Crab, (*Podophthalmus spinosus*, Case 17,) are supported on very long slender pedicles, reaching from the middle of the anterior margin of the shell to the lateral angles, and lodged, when at rest, in a groove on the edge: this is the only known recent species belonging to this genus. Some of the Freshwater Crabs, which live in the rivers and streams, are capable of existing a considerable time out of the water; one species, peculiar to the south of Europe and the Levant, (*Le Canere de riviere* of Rondeletius,) enjoyed great celebrity amongst the Greeks for its supposed medicinal virtues, and is frequently represented on the coins of Agrigentum with the utmost accuracy. Some of the crabs peculiar to hot countries are remarkable for the rapidity of their motions, and other peculiarities; they live in holes, usually near the sea-shore or in the neighbourhood of water; these holes are of a cylindrical form, oblique, and very deep, and several of them are generally found near together, but each hole contains only one inhabitant. When the animal of one of the genera belonging to this family (*Gelasmus*) is in its hole, it closes the entrance with its claw, one of which, sometimes the right, sometimes the left, is commonly much larger than the other. These Crustacea have also a singular habit of holding up the large claw in front of the body, as if they were beckoning to some one at a distance, whence they have acquired the name of Calling Crabs (*Cancer vocans*, Linn.). What has been said of the rapidity of the motions of these Crustacea, is particularly applicable to those of the genus *Ocyrode*, (Case 17,) which hide in holes in the sand on the sea-shore during the day, and leave them at sunset. The genus *Pinnotheres* is a very small race of Crustacea inhabiting bivalve shells, and supposed

by some of the ancients to be consentaneous inmates with the molluscous animal, and attached to it by mutual interest. The Painted or Land Crabs (*Gecarcinus*, Case 17,) live in holes in the earth, especially near burying-grounds, and only go to the sea during the breeding season; their flesh is considered a delicacy, but it sometimes proves deleterious. Besides the preceding, there are specimens of the Globular Crabs (*Leucosia*, Case 19); Sea Spiders (*Leptopodia*, Case 13), with their very long legs; Crested Crabs (*Calappa*), having the front part of the claws raised into a crest, and the hinder part of the shell projecting so as to cover the legs; and lastly, those Crabs which have the two hinder pairs of legs placed on their back (*Dorippe*), and the Death's-head Crabs (*Dromia*, Case 19).

Long-tailed Crustacea, (Cases 20, 22,) as the Lobsters and Shrimps, amongst which, those of the genus *Hippa* (Case 20) have the extremity of the tail simple. The Soldier or Hermit Crabs (*Pagurus*, Case 20) live principally in the cavities of sponges, and also in the mouth of spiral shells, occasionally altering the texture of the latter, by some unknown process, to such a degree as to render them quite soft, and easily penetrable by a common pin. Amongst these is a fine specimen of *Birgus latro*, (Case 20,) said to live on the nuts of palm trees. Also specimens of the Sea Locust (*Scyllarus*), the Rock Lobsters (*Palinurus*, Case 21), the Plated Lobster (*Galathea*, Case 20), and the Crab Lobster (*Porcellana*), which, from the shortness of their tails, generally resemble crabs in appearance; the Scorpion Lobster, (*Thalassina*, Case 21,) which lives a great part of its life on land, and destroys the new made roads in India by the excavations it forms under them; Lobsters, (*Astacus*, Case 21,) one of the specimens exhibited was pale red, nearly of its present colour, when alive; Shrimps (*Palæmon*, Case 22) varying greatly in size.

The *Stomatopodes* or Sea Mantis, differ from the *Decapodes* in the head being horny and separated from the thorax, and in having only three pairs of accessory jaws, seven pairs of feet, and the gills on the abdomen; among them are different species of *Squilla*, the glass-like *Alima*, and the *Phyllosoma*, which is scarcely thicker than a piece of paper, and nearly as transparent as glass; they are found in the ocean near the equator.

The remainder of the Crustacea (*Edriophthalma*) have sessile eyes.

The order of *Arthrostraca* (Case 21) have a free head, and their body composed of a series of similar rings, the first seven of which are each furnished with a pair of feet, the following and last ones, (seven at most,) forming a sort of tail, ending in fins or filiform appendages. On the head are four antennæ and a mouth composed of three pairs of jaws. The females carry their eggs between the scales in a kind of pouch under their thorax, and when the young are hatched, they remain attached to the feet or other part of the body of their mother, until they have acquired strength requisite to swim about and provide for their own wants. They are all of a small size. A few are found in fresh water, and fewer are terrestrial; some are parasitic on other marine animals.

This order has been divided into three sections; some, as the *Amphipodes*, have their jaws furnished with a palpus, while the *Læmodipodes* and *Isopodes* are destitute of them.

The order of *Entomostraca*, on the other hand, have a soft head,

which is merely covered with the general skin of the body. Both the head and the body are frequently enveloped in a free horny or coriaceous shield, formed of one, two, or more pieces. The feet are all partially divided and ciliated.

This order has been formed into two divisions, according to the structure of the mouth and the form of the feet. The most prominent representative of it is the King Crab (*Limulus*).

They were all referred to one group by the older entomologists under the name of *Monoculus*, because they were believed to have only a single eye.

The *Cirripedes* (Cases 23 and 24) were formerly considered as molluscous animals, on account of their being inclosed in a hard shelly case, but now that their history and anatomy have been studied, they prove to be Crustacea, nearly allied to, and indeed forming a part of the *Entomostraca*, and like them they change their skin and have jointed limbs. When first hatched, these animals have only three pairs of legs, they float about free in the sea, and have a pair of large eyes to direct their course. When they have found a fit place to which to attach themselves, the cartilaginous skin that covers their body thickens, and becomes hardened with calcareous plates, and as it becomes more opaque, the eyes, which are no longer wanted, are absorbed. In the perfect state they live affixed to marine bodies, by the part of the body near the head of the animal, and which is always inclosed in a case or hard skin. This skin has an opening at the end of the free part for the passage of the fringed feet, which, by their action, create a current to carry the small animals, in the sea, to the mouth which is placed at the base of the cavity. The edge of this opening in the case is always furnished with four more or less distinct valves, and the base of the case is generally surrounded with other similar valves; the animals are divided into families and genera according to the development of these valves.

In the Sea Acorns, (*Balanus*), the four valves, (usually together called the operculum,) are nearly equal sized, and sunk into a flexible skin, which allows them to move in the cavity formed by the (four, six or eight) valves which surround and inclose the base of the body. These latter valves are united together side by side by a dentated suture into a bell-shaped body, and they are increased in size (as the animals grow) by the addition of new matter to the base and outer side of each of the valves, deposited by the processes of the skin, which are placed for the purpose between their sutures. They are generally affixed to wood and stones, and but a few attach themselves to the bodies of whales, and as they grow, their shells are enlarged by the addition of new matter to the base of the valves, they gradually raise themselves out of the substance of the skin, in which they were immersed in their young state. Some of the genera which live in this manner, as the *Coronula*, to enable them to hold more firmly to the skin, form a shell which is variously folded on its edge, the folds being refolded, and thus increasing in number as the shell enlarges in diameter. These shells are greatly altered in form according to their position; if they are separate they are broad and expanded, if crowded they are narrow and high. In *Balanus* it is the case that is lengthened, and in *Chirona* it is the valves that are produced and altered in shape.

The Barnacles, or Goose-shells, (*Lepas*,) as they have been called, from the extraordinary belief that they were the origin of the Barnacle Geese, have a compressed body, which is placed on a long pedicle arising from behind the head of the animal. This pedicle is sometimes naked, and at others covered with hairy or hard shelly scale-like appendages; the case of the body is generally strengthened with one or more plates, which are similar in form, and are in the same manner sunk in the skin of the body, as the plates before referred to, which surround the opening. In those kinds, as the *Pollicipes*, which have many plates, their tip is sometimes produced beyond the attached part. Larger species are used to flavour soup by the Chilians and the Chinese, and eaten as a delicacy at Madeira, and roasted in their shell by the Chilians.

The general collection of Insects and Crustacea is preserved in cabinets. They may be seen by persons who wish to consult them for the purposes of study, (by application to the Keeper of the Zoological Collection,) every Tuesday and Thursday. To prevent disappointment, it is requested that persons wishing to see those collections, will apply two days previous to their intended visit.

The following is the arrangement of the families of *Annulose Animals*, with references to the Tables containing them.

Sub-kingdom.	Ephemeridæ, 4.	Order III. HEMIP-	Cyclometopes, 14, 15,
ANNULOSA.	Myrmeleonidæ, 4.	TERA.	16, 17.
I. PTILOTA.	Panorpidæ, 4.	1. <i>Heteroptera</i> .	Catametopes, 17, 18.
Class I.	Termitidæ, 4.	Geocorisæ, 10.	Oxystomes, 19.
INSECTA.	Phryganidæ, 4.	Hydrocorisæ, 10.	B. <i>Macroura</i> .
Section I.	Order IV. HYMEN-	2. <i>Homoptera</i> .	Apterura, 19.
MANDIBULATA.	OPTERA.	Cicadaria, 10.	Pterygura, 20.
Order I. COLEOP-	Securifera, 4.	Aphidii, 10.	Scutata, 20.
TERA.	Pupivora, 4.	Gallinsecta, 10.	Thalassina, 21.
Carnivora, 1.	Aculeata, 4.	II. APTERA.	Astacidæ, 21.
Palpicornes, 1.	Diploptera, 4.	Class II.	Silicoeidæ, 22.
Clavicornes, 1.	Anthophila, 4.	ARACHNIDA.	Order II. STOMATO-
Brachelytra, 1.	Section II.	Mygalidæ, 11.	PODA.
Lamellicornes, 1, 2.	HAUSTELLATA.	Araneidæ, 11.	Squillidæ, 12.
Serricornes, 2.	Order I. LEPIDOP-	Scorpionidæ, 11.	Phyllosomidæ, 12.
Melasoma, 2.	TERA.	Phalangidæ, 11.	Alimidæ, 12.
Taxicornes, 2.	Papilionidæ, 5.	Pyenogonidæ, 12.	Sect. II. EDRIOPH-
Stenelytra, 2.	Pieridæ, 5.	Solpugidæ, 12.	THALMA.
Trachelides, 2.	Nymphalidæ, 6, 7.	Acaridæ, 12.	Order I. ARTHROS-
Rhynchophora, 2.	Lycenidæ, 7.	Class III.	TRACA.
Platysoma, 2.	Hesperiadæ, 7.	MYRIAPODA.	<i>Amphipoda</i> .
Longicornes, 2, 3.	Sphyngidæ, 8.	Glomeridæ, 12.	Gammaridæ, 12.
Eupoda, 3.	Sesiadæ, 8.	Ilulidæ, 12.	Typhnidæ, 12.
Cyclica, 3.	Cossidæ, 8.	Polidesmidæ, 12.	Læmodipoda, 12.
Clavipalpi, 3.	Bombycidæ, 8, 9.	Scutigridæ, 12.	<i>Isopoda</i> .
Aphidiphagi, 3.	Noctuidæ, 9.	Scutigeridæ, 12.	Epicaridæ.
Order II. ORTHOP-	Tortricidæ, 9.	Scutopendridæ, 12.	Cymothoidæ, 12.
TERA.	Phalænidæ, 9.	Geophilidæ, 12.	Asellinidæ, 12.
Forficulidæ, 3.	Tineidæ, 9.	Class IV.	Oniscidæ, 12.
Blattidæ, 3.	Order II. DIPTERA.	CRUSTACEA.	Order II. ENTOMOS-
Mantidæ, 3.	Nemocera, 10.	Sect. I. PODOPH-	TRACA.
Phasmidæ, 3.	Tannystoma, 10.	THALMA.	Siphonostoma, 22.
Gryllidæ, 4.	Tabanidæ, 10.	Order I. DECAPODA.	Lophyropoda, 22.
Locustidæ, 4.	Notacantha, 10.	A. <i>Brachyura</i> .	Phyllopoda, 22.
Order III. NEUROP-	Athericera, 10.	Oxyrhynchi, 13, 14.	Pæcilopoda, 22.
TERA.	Pupipara, 10.		Cirripedes, 23 and
Libellulidæ, 4.			24.

FIFTH ROOM.

The Upright Cases round the Room contain the specimens of the MOLLUSCOUS and RADIATED ANIMALS preserved in spirits. They are arranged as the other specimens in the Table Cases in the Eastern and Northern Galleries.

The Table Cases contains the SPONGES, which resemble Corals in various particulars, but their animal nature is not distinctly made out; those found in collections are merely the skeletons of the living mass, entirely destitute of the gelatinous portion which constitutes the animal, if it be really of that nature. Some naturalists have considered these skeletons, or Sponges, as analogous to the stems of *Antipathes*, or Black Coral, and consequently to the axes or central supports of Zoophytes; and have fancied that, when alive, they were covered, like the *Antipathes*, with a perishable crust, consisting of the dried polypes. But recent observations on them in their living state have not verified this theory; for they have been found to be entirely destitute of any polypi, to be mere living masses covered with a gelatinous coat, and absorbing water through the small pores spread over their surface, and emitting it by the larger scattered holes called *oscula*; and though the fibres of many of the sponges greatly resemble the axes of the *Gorgonia* in their chemical composition and organic structure, they nevertheless cannot be confidently pronounced to belong to the animal, rather than to the vegetable kingdom. In some, the skeleton, which alone can be shewn in the dry state, consists of a horny fibre, (*Spongia*,) in others it is formed of interwoven calcareous spiculæ, which greatly vary in their shape. In a few the spiculæ are formed of pure flint, and of sufficient hardness to scratch glass.

The *Tethya*, (Table 7,) differs from the Sponges with siliceous spiculæ in being more or less globular, with all the spiculæ radiating from the centre, and in its outer surface being covered with a crust formed of minute calcareous globules.

JOHN EDWARD GRAY.

June 24, 1842.

NORTH GALLERY.

THIS Gallery, above the Library on the North side of the North Wing, is appropriated to the Oryctognostic or Mineralogical Collection, and to that of Palæontology (Secondary Fossils or Organic Remains). The greater portion of these Collections, removed from the room heretofore called the Long (but now the Eastern Zoological) Gallery, is under re-arrangement. According to the plan laid down for their distribution, the Table Cases containing the General Collection of Minerals will form two rows or series, extending through four rooms, as follows:—

In Room I., being the N. E. corner room, the first series of Table Cases begins and the second terminates: it contains Cases 1 to 6 and 55 to 60. Room II. contains the Cases 7 to 13 and 48 to 54. Room III. will contain the Cases 14 to 23 and 38 to 47; and Room IV., the Cases 24 to 30 and 31 to 37.

The system adopted for the arrangement of the Minerals, with occasional slight deviations, is that of Berzelius, founded upon the electro-chemical theory and the doctrine of definite proportions, as developed by him in a memoir read before the Royal Academy of Sciences of Stockholm. The detail of this arrangement cannot here be entered into: it is, however, partly supplied by the running titles at the outside of the glass Cases, and by the labels within them.

The first two Cases, and part of the third, contain the electro-positive *native metals*: iron, copper, bismuth, lead, silver, mercury, palladium, platinum, osmium and gold.

Case 1. Of *native iron*, found in insulated masses, and disseminated in meteoric stones, the following specimens are deposited:—*native iron* from Gross-Kamsdorf in Saxony;—two small polished pieces of the mass found in Southern Africa, which weighed about 250 pounds, and is now in the cabinet of Haarlem:—fragment of the iron from Senegal;—specimens of the native iron from Otumpa, in the Gran Chaco Gualamba, in South America, described by Don Rubin de Celis, who estimated the weight of the mass to be about 300 quintals, or 15 tons*;—a large piece detached from the celebrated mass of Siberian native iron, which was discovered by Pallas on the summit of a hill between Abakansk and Belskoi Ostrog, on the banks of the Jenisey, where it was considered by the Tartars as a sacred relic: the mass originally weighed about 1680 pounds;—a mass of iron from Atacama, resembling that of Siberia, and also containing much of the olivine-like substance within its cells;—a piece of the large mass from Ellenbogen, in Bohemia, and another of that found on the Collina di Brianza, in the Milanese;—two specimens of the mass of iron found at Lenarto in Hungary, one of which (being polished and treated with acid) exhibits the outlines of imperfect crystals;—a small piece of the large mass in the Capitania di Bahia, Brazil;—another, from that found in the province of Durango, Mexico;—a portion of the mass from Zacatecas, Mexico, described by Humboldt;—a specimen detached from the large mass of iron preserved at Aix-la-Chapelle;—an Esquimaux knife and harpoon (from Davis's Straits, Lat. 76° N. Long. 66° W.), the iron of which is meteoric;—a large piece of the problematical mass of iron discovered at Magdeburg, and which, according to Stromeyer's analysis, contains (besides nickel and cobalt) also copper, molybdenum, and arsenik;—some small portions of the meteoric iron from Texas;—some of the exfoliated iron from Buncombe, North Carolina;—a polished piece of the iron found at Otseya, New York (see *American Journal of Science* for 1841). Of *meteoric stones* or *meteorites* (classed with native iron, because they all contain this metal, generally alloyed with nickel) the following are placed in chronological order:—a large fragment of the stone which fell at Ensisheim, in Alsace, Nov. 7th, 1492, when Emperor Maximilian, then king of the Romans, was on the point of engaging with the French army: this mass, which weighed 270 pounds, was preserved in the cathedral of Ensisheim till the beginning of the French revolution, when it was conveyed to the public library of Colmar;—one of the many stones which fell, July 3rd,

* The large mass of iron placed against the wall under the window in Room I., was sent from Buenos Ayres, by Mr. (since Sir Woodbine) Parish; it is supposed to be part of that of Otumpa: its weight 1400 pounds.

1753, at Plaun, in the circle of Bechin, Bohemia, and which contain a great proportion of attractable iron ;—specimens of those that were seen to fall at Barbotan, at Roquefort, and at Juliac, in the Landes of Gascony, July 24th, 1790 ;—one of a dozen of stones of various weights and dimensions that fell at Sienna, in Tuscany, Jan. 16th, 1794 ;—the meteoric stone, weighing 56 pounds, which fell near Wold Cottage, in Yorkshire, Dec. 13th, 1795 ;—fragment of a stone of 20 pounds, which fell in the commune of Sales, near Villefranche, in the department of the Rhône, March 12th, 1798 ;—specimens of stones fallen near the city of Benares, in the East Indies, Dec. 19th, 1798 ;—entire and broken specimens of the meteoric stones of which a shower descended at Aigle, in the department of the Orne, April 26th, 1803 ;—fragment of that of Smolensk, June 27, 1807 ;—fragment of one of those that were seen to fall at Weston, in Connecticut, Dec. 14th, 1807 ;—two meteoric stones with shining black surfaces, fallen May 22d, 1808, at Stannern, in Moravia ;—two fragments of the Tipperary meteorite which fell in August, 1810: it contains quartz globules of a green colour, owing to oxide of nickel ;—a fragment of that of Berlanguillas, in Catalonia, July 8th, 1811 ;—a fragment of one, weighing 66 pounds, which fell August 5th, 1812, near Chantonay, in the Vendée ;—fragment of the meteoric stone which fell at Adare, in the county of Limerick, Ireland, in 1813 ;—fragment of one of those which fell Sept. 5th, 1814, at Agen, in the Pyrenees, and another of that which descended at Juvénas (Ardèche), on June 15th, 1821 ;—a portion of the meteorite which descended at Nanjenoy in Maryland, February 10th, 1825 ;—a small fragment of the Tennessee meteorite, May 9th, 1827 ;—three of those that were seen to fall, October 13th, 1838, at Old Bokkeveld, at the Cape of Good Hope ; and a fragment of that which fell in Missouri, February 13th, 1839 ; (the former described in the Philosophical Transactions, the latter in the American Journal of Science for 1839 ;—a portion of one that fell, June 12th, 1841, at Triguerre, Canton of Chateau-Rénard, department of the Loire.

Among the specimens of *native copper* (which presents a great variety of forms besides the crystallized, such as dendritic, filiform, &c.) may be specified the mass from Hudson's Bay, found by Mr. Hearne, and described by him in his journal, and that from the mountains separating the Quananger and Alten Fiords in the north of Norway. → *Native lead*, in lava : to which is added a medal cast in the same lead which was ejected by Vesuvius in 1631.—*Native bismuth*, massive, disseminated, and dendritic, in jasper, &c. : to which are added, specimens exhibiting the artificial crystallization of the same, produced by the sudden cooling of the melted metal.—In this case is also placed a specimen of artificially produced *titanium*, crystallized in cubes, from the smelting furnace of the great iron works at Merthyr Tydvil in Wales.

Case 2. *Native silver* : among its varieties may be particularized those exhibiting the various forms in which it most frequently occurs, such as tooth-shaped, moss-like, wire-shaped, dendritical, branched, denticular, massive, &c., particularly from Kongsberg and the Hartz, (the latter presented by His Majesty George IV.,) many of which are aggregations of minute crystals.—*Native mercury*, and *hydrarguret of silver* or *native amalgam* ; the former chiefly as globules, disseminated in cinnabar, sparry limestone, &c. ; the latter crystallized in perfect and

modified rhombic dodecahedrons, globular, &c. : to which are added figures and ornaments moulded and modelled in amalgam, by the miners of Mexico.—*Native platinum*, massive and as grains: rock specimens of the formation in which it occurs in the Ural, Siberia.—*Palladium* and *osm-iridium*, in a wrought state.

Case 3. *Native gold*, subdivided into pure and alloyed gold; the former chiefly massive, in detached crystals and as grains (from alluvial deposits of Guinea, Sumatra, Bengal, Brazil, Leadhills in Scotland, &c.), and in brown iron-stone, in quartz, with needle-ore, &c., from Siberia; the alloyed gold (principally from Transylvania) crystallized in minute cubes and octahedrons variously aggregated, in reticular plates, &c. With these are placed a few specimens of the alloys known by the names of *auriferous silver* and *electrum*.

In this Case begin (continued to Case 12) the electro-negative metallic substances (metalloids), and their not oxidized combinations.—*Tellurium* and *tellurets*: the scarce *native tellurium*, which (like sulphur and selenium) has the property of mineralizing several metals, combining with them as electro-negative substance, viz.—with *bismuth* (formerly called molybdena-silver) from Bastnaes: to which also belongs the *tetradymite*;—with *silver*, from the Altai, Siberia;—with *lead* (foliated tellurium, or nagyag ore);—with *silver and lead* (white and partly yellow tellurium);—with *silver and gold* (graphic tellurium or schiffertz of authors), all from Transylvania.—*Native antimony* from Daphny, and *antimonial silver* or stibiuret of silver from the Hartz, &c.

Case 4. *Native arsenic* (formerly called testaceous cobalt and scherben-cobalt), in reniform and botryoidal shapes, from Andreasberg, &c.; and its chemical combinations (arseniurets)—with *nickel* (commonly called copper-nickel);—with *cobalt*, comprising the grey and part of the white cobalt of some mineralogists;—with *bismuth* (*herstenite*.)

The remainder of this Case contains the substances belonging to the confined orders of *Carbon* and of *Selenium*. To the former are referred the diamond, anthracite, and graphite; to the latter the selenium metals or seleniurets. Among the specimens selected to illustrate the crystalline forms of the *diamond* are:—the primitive regular octahedron; the same with solid angles truncated; with edges truncated, forming the passage into the rhombic dodecahedron; varieties of the latter, giving rise to the six-sided prismatic and the tetrahedral forms; cubes with truncated and bevelled edges; various hemitropic crystals or macles of diamonds; an octahedral diamond, attached to some alluvial gold; two others in a siliceous breccia with cement of hydrous oxide of iron, and one in compact brown iron stone, from Brazil; models of large diamonds, &c. With these are placed specimens of the alluvial rock in which this precious substance occurs in the East Indies and in Brazil.

Varieties of *anthracite* or kohlenblende (to which may be referred the Kilkenny coal), from various localities, with native silver from Kongsberg, &c.;—*graphite* (commonly called black-lead), massive, disseminated in porcelain earth, &c.—*Seleniurets*: lead seleniuret;—copper and lead seleniuret;—mercury and lead seleniuret, all from Tilkerode, Hartz;—cobalt and lead seleniuret;—copper seleniuret;—copper and silver seleniuret (*eukairite*), both from Strickerum, Sweden;—to which are added specimens of sulphur, from the island of Volcano, incrustated and coloured by reddish-brown or orange-red particles of selenium.

Case 5. The suite of specimens of *sulphur* (among which may be specified the splendid crystallizations from La Catolica in Sicily, and from Conilla in Spain, the stalactic, and other varieties, accompanied by selenite, sulphate of strontia, &c. ; and the massive and pulverulent sulphur found sublimed near the craters of volcanos, &c.) is succeeded by the *Sulphurets*, which occupy half of this and seven of the next following glass cases. They begin with *sulphuret of manganese* or manganese-blende, from Nagyag in Transylvania and from Peru.—Among the numerous varieties of *sulphuret of zinc*, or zinc-blende, may be particularized those relative to colour, viz., the yellow, the brown, and the black-blende of Werner: the first of which is generally most pure, while the others contain a portion of iron; the fibrous blende of Przbraim in Bohemia, in which cadmium was first discovered; the variety called testaceous or schaa-len-blende (the most characteristic specimens of which are from Geroldseck in the Brisgau), containing, besides iron, a portion of lead.

Case 6.—*Sulphurets of iron*, or *iron pyrites*:—*common pyrites*, crystallized and variously modified, in cubes smooth and striated, from several localities;—*radiated pyrites*, a substance very subject to decomposition, and to which belong most of the varieties of what is commonly called lenticular or coxcomb-pyrites, as also the globular pyrites, of a radiated texture, and the *hepatic* or *liver-pyrites* of Werner, (distinct from the *fer sulfuré hépatique* of some French mineralogists, which is both radiated and common iron-pyrites converted into brown iron stone);—*magnetic pyrites*, which is nearly allied to the preceding species: massive and crystallized in six-sided prisms.—*Sulphuret of cobalt*, from Bastnaes in Sweden.—*Sulphuret of nickel*, formerly called capillary iron-pyrites, and afterwards considered as native nickel, till its real composition was determined by Arfvedson.—*Sulphuret of cadmium*, lately discovered at Bishopstown in Renfrewshire, and to which the name of *greenockite* has been given.

Case 7. *Sulphuret of copper*, *copper glance*, or vitreous copper, variously crystallized, foliated, compact, &c. ; to which are also commonly referred the vegetable fossil remains known by the name of Frankenberg corn-ears, from the bituminous marl-slate of Frankenberg in Hessa, which are principally composed of vitreous and grey copper.—*Sulphuret of copper and iron*, to which belongs the *copper pyrites* or yellow copper, including the pale-yellow fine-grained variety called hematitiform, or blistered copper-pyrites; and the *variegated copper ore* (buntkupfererz), differing from the former in the proportions of its constituent parts, and easily known by the reddish colour of its fractural surfaces: crystallized, massive and foliated.—*Tennantite*, by some referred to fahl ore, from Cornwall.

Case 8 contains a suite of specimens of *sulphuret of lead* or *galena*, which include a great variety of modifications of crystals, detached and grouped together, in combination with blende, pyrites, and many other substances; galena of various grain, massive and disseminated; galena of corroded appearance, decomposed and regenerated; the compact and specular variety, called slickenside by the Derbyshire miners, &c.

Case 9. *Sulphuret of bismuth*, or *bismuth-glance*, in acicular crystals, from Riddarhyttan, &c.—*Sulphuret of copper and bismuth*, called *copper-bismuth*, from Wittichen, in the Black Forest.—The *needle-ore*

of Werner, a triple sulphuret of bismuth, lead, and copper, only found near Ekatherineburg, in Siberia, accompanied by native gold, &c.—*Sulphuret of copper and tin*, or *tin-pyrites*, only found in Cornwall.—The remainder of this case is taken up by a considerable suite of specimens of *sulphuret of mercury* or *cinnabar*, chiefly from Almaden, in Spain, and from the Palatinate, divided by Werner into the dark-red (by far the most common variety), and the bright-red cinnabar (native vermilion, much esteemed by painters); the *idrialine-cinnabar*, a mixture of cinnabar with the bituminous substance called idrialine, and earthy particles, from Idria, in Carniola, compact and slaty: the same with testaceous organic remains (coral ore).

Case 10. *Sulphuret of silver*, common *silver glance*, or *henkelite*, massive, crystallized, and in other external forms, among which are the laminar and capillary: the black silver ore appears to be a pulverulent variety of this species;—flexible silver glance, or *sternbergite*;—the scarce *donacargyrite*, or *schilfertz* of German mineralogists.—*Sulphuret of antimony*, or grey antimony, compact, foliated, radiated, and plumose: the more remarkable among these are the specimens of crystallized antimony in splendid groups, especially from Transylvania; radiated grey antimony with baroselenite, realgar, &c., plumose antimony (feather ore), some varieties of which, appearing like delicate wool or down, display a fine iridescent blue, yellow, and red tarnish.*—With these is placed the *hartmannite*, a sulphuret of antimony and nickel.

Case 11. Part of this Case is occupied by the specimens of *sulphuret of arsenic*, viz. the *yellow orpiment*, massive and in striated, transparent, separable laminæ; and the *red orpiment* or *realgar*, perfectly crystallized and massive.—The rest of this and part of the next Case contain the simple and double sulphur-salts formed by the sulphurets of antimony and of arsenic, with basic sulphurets of electro-positive metals; they are (besides some varieties of the plumose antimony or feather-ore)—the *jamesonite* or axotomous glance antimony;—the *zinkenite*, nearly related to plumose antimony;—the *silver-blende* or *ruby-silver*, divided into the dark and the light red, both of the same crystalline forms, but in the latter of which sulphuret of arsenic takes the place of the sulphuret of antimony of the former;—the *miargyrite* of H. Rose, first separated by Mohs from red silver under the name of hemiprismatic ruby-blende; to these is related the *melan-glance*, as are some varieties of the sulphur-salt commonly called *brittle silver-glance* (the *röschgewächs* of the Hungarian miners), which appears to be composed of the same constituent elements as the dark and the bright red ruby-silver ores, but in different proportions;—*bournonite*, a sulphur-salt known also by the names of endellion, and triple sulphuret of lead, antimony, and copper;—the scarce *polybasite*;—and in the next Case.

Case 12, the *fahl-ore* or grey copper (a double sulphur-salt, on the chemical constitution of which much light has lately been thrown by the researches of H. Rose), crystallized, massive, and disseminated in various substances.

The remaining substances in this Case are (besides the *sulphuret of molybdenum* or *molybdena-glance*) several of the *arsenio-sulphurets*,

* Several of the plumose varieties of grey antimony are referable to the sulphur-salts in the next glass case.

such as the *arsenic-pyrites* or *mispickel* (some varieties of which, containing accidentally admixed silver, constitute Werner's *weiss-ertz*); *cobalt-glance*, massive and crystallized in the form of the cube and its modifications, &c.

In the six following Cases the *oxides* of the electro-positive metals are deposited.

Case 13 contains the *oxides* and *hydrous oxides of manganese*, formerly distinguished as foliated, compact, and earthy grey manganese; but now, from chemical and crystallographical distinctive characters, divided into the species called *manganite*, *pyrolusite*, *psilomelane*, *hausmannite*, *braunite*, &c., to several of which, but particularly the first two, may be referred the earthy manganese or *wad*, some varieties of which have the property of inflaming spontaneously when mixed with linseed oil.

Case 14. This and the two following Cases contain the *oxides of iron*.

Specular oxide of iron or *iron-glance*, among the specimens of which may be specified those from Elba, remarkable on account of their beautiful iridescence and play of colours; the variety in large laminar crystals appearing like polished steel, from Stromboli and Vesuvius;—the *micaceous iron-ore* of Werner, belonging partly to this species, partly to hydrous oxide of iron;—*red iron-ore*, divided into compact red iron-stone and red hematite.

Case 15. *Oxydulated iron* or *magnetic iron-ore*, massive and of various grain, compact, crystallized, in serpentine, chlorite-slate, &c.; ore from the East Indies, which yields the wootz, or salam-steel, remarkable for its hardness; magnetic *iron-sand*. With the oxides of iron is also provisionally placed the *crucite* of Thomson; and the *beudantite*, which latter is composed of the oxides of iron and lead.

Case 16. *Hydrous oxide of iron* or *brown iron-stone*, among the most remarkable varieties of which species are, the micaceous, called *göthite*, in delicate transparent tables of a blood red colour; that in fine scales coating the cells of lava; a shining brownish-black variety used as hair powder by the Bootchuana natives beyond the Great River in South Africa; the fibrous brown iron-stone or brown hematite; the compact and the ochrey brown iron-stone—and, as appendix to it, the *argillaceous* or *clay iron-stone*, with its many varieties, such as the columnar, the pisiform (pea-ore), the reniform, &c.

Case 17. *Oxide of copper*:—*red* or *ruby-copper* compact, foliated, and fibrous; one of the more remarkable is the bright-red capillary variety from Rheinbreitenbach (in which selenium has been discovered by Kersten), and from the Bank mines in Siberia;—the ferruginous red oxide of copper or *tile-ore*, a mixture of red copper and brown iron-ochre; the *black oxide* or *copper-black*, generally mixed with the oxides of iron and manganese.—*Oxide of lead*:—the *native minium* from Hessa (first described by Mr. Smithson), from Siberia, &c., probably produced by the decomposition of galena.—*Oxide of bismuth* or *bismuth-ochre*, from Saxony and Bohemia.—*Oxide of zinc* or *red zinc-ore* from New Jersey; and the *franklinite*, composed of the oxides of zinc and manganese.—*Black* and *yellow earthy cobalt*, both called *cobalt-ochre*, which seem to be hydrates of the oxides of cobalt and manganese, frequently mixed with oxide of iron.—*Oxide of uranium*,

or *uran-ochre*, and the hydrous protoxide of the same, called *pitch-ore*.

Case 18. *Oxide of tin* or *tin-stone*, divided by Werner into *common tin-stone* and *wood-tin*: among the specimens of the former (chiefly from Cornwall, Saxony, and Bohemia) may be specified the greyish-white crystals resembling *scheel-ore* or *tungstate of lime*, the regular and macled crystals, the pebble-like and granular *tin-stone* (*shoad-tin*, *stream-tin*, *grain-tin*, &c.), the columbiferous oxide of tin from *Finbo* in Sweden; a variety of fibrous oxide or *wood-tin*, composed of radiated-fibrous small globules, and marked with concentrically disposed brown and yellow colours, is called *toad's eye wood-tin*, &c.

In the next Case begin the oxides of electro-negative bodies, and their various combinations.

Case 19. *Alumina* and *Aluminates*. To the former belongs the *corundite*, divided into *noble* and *common*. *corundite*, the former comprehending the precious stones commonly called *oriental gems* (the *sapphire*, *ruby*, *oriental amethyst*, *oriental topaz*, *oriental emerald*), of the crystallized forms of which the principal modifications are here deposited; the latter, to which the name of *corundum* is more especially applied, affords one of the hardest and best polishing materials to the lapidary: from *Bengal*, *Mysore*, *China*, the *Carnatic* (Werner's *diamond spar*), *Lapland*, *Piedmont*, &c. As appendix to these are added, the *fibrolite*, (*bournonite* of *Lucas*), one of the concomitant substances of the common *corundum* of the *Carnatic*;—the *indianite* of *Bournon*, being one of the matrices of the same *corundum*;—the *emery*, which owes its hardness and consequent usefulness in polishing to an admixture of blue *corundum*.—The *diaspore* and the *gibbsite*: both hydrates of *alumina*.

Aluminate of magnesia—the *spinel*: among its principal varieties may be specified the blue *spinel* of *Aker* in *Südermannia*, and the brown, often in crystals of considerable dimension, from *New Jersey*. The *ceylonite* or *pleonaste*, and the *automolite* (also called *gahnite*), from *Fahlun* in *Sweden* and from *Franklin* in *New Jersey*, are, the former an *aluminate of protoxide of iron and magnesia*, the latter an *aluminate of zinc*;—the *chrysoberyl* or *cymophane*, considered as an *aluminate of glucine and of iron*, among the specimens of which may be specified the large crystals from the *Ural* and from *Brazil*, those in a matrix of *quartz* and *feldspar* with *garnets*, from *Haddam* in *Connecticut*, and also those from *Saratoga* and *New York*;—the mineral called *gum-lead* (*plomb gomme*), from *Huelgoet* in *Brittany*: a hydrous *aluminate of lead*.

The five following Cases contain the acid or oxide of *silicium* (*silica*, *quartz*), the numerous varieties of which, formerly considered as so many distinct species, are mostly indebted for their generally very striking external characters to the admixture of matter foreign to the species, or to other casual circumstances that prevailed at their formation.

Case 20. *Amethyst quartz* of various tints, in grouped crystals, &c. —*Rock crystal*: various modifications of crystalline forms: small *dodecahedral* and other crystals, known by the names of *Gibraltar diamonds*, *Bristol diamonds*, &c.; varieties of colour, according to which this substance obtains the familiar denominations of *smoky topaz* or *morion*, *cairngorm*, *citrine*, &c.; specimens of *rock crystal* enclosing

various substances, such as rutile, brown iron-stone, micaceous iron, acicular antimony, actinote, asbest, chlorite, &c.; groups of rock crystal; some specimens of rock crystal in a wrought state are added, among which is Dr. Dee's show-stone (see Walter Scott's Demonology), &c.

Case 21. *Common quartz*: among the specimens of this widely diffused substance, which offers such a great variety in its external aspect, the more remarkable are the hacked, corroded, and cellular quartz from Schemnitz, as also the pseudomorphous or supposititious crystals, principally derived from modifications of calcareous and fluor spars; and, with regard to colour, the blue quartz, called *siderite*, from Salzburg, and the *rose* or *milk quartz*, which are both used as ornamental stones;—*fibrous quartz*;—*flexible sandstone (itacolumite)* from Brazil and China;—*fetid quartz*, from Nantes;—*iron-flint*. In this Case are also deposited several varieties of *stalagmitic quartz* or *quartz-sinter*, the most remarkable among which are the siliceous concretions deposited by the celebrated hot spring in Iceland, the Geyser; another variety of it is the *pearl-sinter* from Santa-Fiora in Tuscany (whence it has obtained the name of *florite*), and from the island of Ischia. With these are placed specimens of the *ceraunian sinter* or those enigmatical siliceous tubes which were discovered in the sands of the Senner Heath in the County of Lippe (where, on account of their probable origin, they are called lightning tubes, from which name those of *fulgurite*, *ceraunian sinter*, *astraphyalite*, are derived), at Drigg on the coast of Cumberland, and lastly, by the late Capt. Clapperton, near Dibbla in the Tuarick country, Africa, from which localities specimens are here deposited. The *hyalite* is placed here as a mineral related both to stalagmitic quartz and calcedony;—the *haytorite*, a pseudomorphous substance, being purely siliceous, but presenting the form of datolite.

Case 22 contains some more of the varieties of common quartz: *prase*, which appears to be an intimate mixture of this substance and actinote;—the *avanturino quartz*;—as also some varieties of the *cat's eye* (mostly from Ceylon), in which the chatoyant lustre is generally produced by nearly invisible fibres of amianth lodged in the quartz mass.—Part of this Case is occupied by the siliceous substance called *hornstone*, divided into the conchoidal and splintery varieties; among these are the remarkable pseudomorphous crystals from Schneeberg in Saxony, derived from various modifications of calcareous spar; also beautiful specimens of wood converted into hornstone, being the *wood-stone* of Werner; hornstone balls from Haunstadt in Bavaria.—Of *flint*, a well known mineral substance, some interesting varieties are deposited.

The remainder of the contents of this and the whole of those of the following Case relate to calcedonic substances. Among the specimens of common *calcedony* the most remarkable are, the smalt-blue variety from Felsobanya in Transylvania, crystallized in obtuse rhombohedrons; the branched and stalactical calcedony from Iceland, &c.; the botryoidal, from Ferroe; nodules, enclosing water (enhydrites), from Monte Berico, near Vicenza, where they occur in volcanic rocks.

Case 23. Calcedonic substances continued: cut and polished pieces of calcedony with red and black dendritic and other figures, called

mocha-stones; varieties with white, brown, and black, straight or curved lines, some of which were probably among the substances of which the costly *vasa murrhina* of the ancients were made; red and yellowish varieties of calcedony called *carnelian*—*Plasma*.—*Heliotrope*, an intimate mixture of calcedony and green earth, which, when containing disseminated particles of red jasper, is commonly termed blood-stone.—The beautiful and much esteemed variety of calcedony called *chrysoptase*, hitherto only found at Kosemütz in Silesia, and which owes its colour to oxide of nickel, as does the green siliceous earthy substance, named *pimelite*, which accompanies it. To these are added specimens of some varieties of the siliceous compounds called *agates*, in which common calcedony, carnelian, and heliotrope generally form the predominant ingredient.

Case 24. One half of this Case is occupied by the different varieties of jasper, such as they are enumerated by Werner, viz. the globular or *Egyptian jasper*, found chiefly near Cairo, in rounded pieces, which appear not to owe their form to rolling, but to be original, and produced by infiltration;—the *riband-jasper* or striped jasper, the finest varieties of which are found in Siberia;—the variously-tinted *common jasper*;—the *agate jasper*, found only in agate veins, and the *porcelain jasper*, produced by the action of subterraneous fire on clay-slate. The other half of this Case contains opaline substances (mostly hydrates of silica), viz., specimens of the *noble opal*, which owes its beautiful play of colours to a multiplicity of imperceptible fissures in its interior;—the *sun-opal*, or *fire-opal*;—the *common opal*,—a translucent white variety of which, appearing yellow or red when held between the eye and the light, is called *girasol*;—the *semi-opal*, agreeing in its principal characters with the common;—specimens of a variety which, having the property of becoming transparent when immersed in water, is called *hydrophane*, or *oculus mundi*;—*wood-opal*, or *opalized wood*;—*jasp-opal*, referred by some authors to jasper;—the *menilite*, liver or opal, found at Menil-Montant, near Paris, in a bed of adhesive slate, a specimen of which is added.

In the two next Cases are placed the *Silicates with one base*.

Case 25 contains the *silicates of lime* and the *silicates of magnesia*. To the former belongs the *table spar* or *wollastonite* from Mount Vesuvius, Nagyag, &c. The silicates of magnesia comprehend several of the minerals placed by Werner in the talc genus:—*steatite*, the more remarkable varieties of which are, that of yellowish green colour from Greenland, and that from Göpfersgrün in Baireuth, with small crystals of other mineral substances, especially quartz, converted into, and forming part of the massive steatite; variety called chalk of Briançon;—*keffekil*, or meerscham, from Natolia; of which the well-known pipe-bowls are made, and that from Valecas in Spain;—also a related substance, called *keffekillite* by Dr. Fischer, who discovered it in the Crimea;—*lithomarge*, the more remarkable varieties of which are, that of a reddish yellow colour in porphyry, from Rochlitz, and the fine purplish blue variety from Planitz, formerly called *terra miraculosa Saxonica*, &c.—*serpentine*, the purer varieties of which (generally hydrates) are called noble serpentine: they constitute, in combination with primitive limestone, the *verde antico* and some other fine green marbles; among the varieties of the common serpentine, the best known are those from

Baireuth and from Zöblitz in Saxony, where they are manufactured into vases and various other articles; serpentine with embedded garnets, magnetic iron-stone, asbest, &c.—the *marmolite* of Hoboken in New Jersey likewise belongs to serpentine.—With these is also placed the *olivine*, which, in its purer state, is denominated *chrysolite* or *peridot*, and when protoxide of iron is predominant, has, by some, been called *hyalosiderite*.

Case 26. *Silicate of zinc*, called also electric or siliceous calamine, the finest specimens of which are those from Siberia and Hungary; the variety called *willemite*, from Aix-la-Chapelle.—*Silicate of manganese*, of which there are several varieties (some of them only mechanical mixtures of this silicate, of carbonate of manganese, and quartz), which have received particular names, such as allagite, rhodonite, &c. *Silicate of cerium* or *cerite*, from Bastnäs, Sweden,—with which is placed the rose-coloured substance called *thulite*, found with blue idocrase in Tellemarken, Norway.—*Silicate of iron*, to which belong the *hisingerite*, *sideroschizolite*, *chlorophæite*, *stilpnomelane*, and *gillingite*.—*Silicate of copper*, or siliceous malachite, formerly called chrysocolla and copper-green: to which is also referred the *diopase* or copper-emerald, a scarce mineral from the Kirguise country in Siberia.—*Silicate of bismuth*, also called bismuth-blende, a mineral found in the form of hair-brown globules, from Schneeberg, Saxony.—*Silicate of zirconia*, to which belong Werner's common zircon and some hyacinths of jewellers, from Ceylon, Auvergne, Chili, the Lake Ilmen in Siberia; also the variety called zirconite from Friedrichsvärn in Norway, &c.;—the blue zircon from Vesuvius.—*Silicate of alumina*: of these we have the *kyanite* or disthène, and its varieties, the *bucholzite* and the *sillimanite*, and also the *scarbroite*, *halloysite*, *lenzinite*, &c. With these are also placed some of such varieties of *clay* as are chemical combinations of alumina and silica.

For the subdivision into groups of the *Silicates with several bases*, the reader is referred to the tickets in the interior of the following ten Cases, which contain this extensive class of mineral species.

Case 27 contains the following zeolitic substances: *apophyllite*, or ichtyophthalmite, in fine crystals, from Hesloe in Faroë; with *stilbite*; with *tessellite* of Brewster, with *poonalite* of Brooke, &c.; a variety of apophyllite, formerly called *albine*, by Werner;—*chabasite* or *chabasie*, in groups of primitive rhomboidal and modified crystals;—the variety called *haidenite* from Baltimore;—*mesotype* from Auvergne, Faroë, &c., to which are also referred the *natrolite* of Klaproth, the *needle-stone* of Werner, the *scolicite*, the *mesolite*, *krokolite*, &c.;—*thomsonite*;—*anal-cime*, among the crystallized varieties of which are remarkably large specimens of the trapezoidal and triépointé modifications from Fassa in Tyrol.

Case 28. Zeolitic substances continued; *stilbite* and *heulandite*;—*brewsterite*;—*laumontite* or *lomonite*, also called efflorescent zeolite, because most of its varieties are subject to decomposition by exposure to the air;—*prehnite*, the grass-green variety of which, discovered in South Africa by the Abbé Rochon, has been mistaken for chrysolite, chrysoptase, and even emerald;—to this also belongs the *koupholite* of Vauquelin. The substance known by the name of Chinese jade or *you-stone*, is likewise placed with prehnite, to which it has been referred by Count Bournon; but

no chemical analysis has as yet been given of it.—A suite of specimens of *comptonite* from Vesuvius, lining the cavities of a pyroxenic lava, &c. accompanied by gismondine and other crystallized substances ;—*gmelinite* or *hydrolite* ;—*lévine*, and some other new species of this extensive family of minerals.

Case 29. To the same family belongs the *harmotome* or cross stone, divided into baryte-harmotome and potass-harmotome, to which latter are to be referred the Vesuvian minerals called *zeagonite*, *gismondine*, *abrazite*, and also the *philipsite*.

The remainder of this Case is occupied by species of the feldspar family.—*Common feldspar*, variously crystallized and massive : among the specimens here deposited may be specified—the fine green variety from Siberia, called amazon stone ; the beautiful large crystals from Baveno ; feldspar with embedded crystals and fragments of quartz (graphic stone, graphic granite), from Siberia, &c. ;—*Labrador feldspar* (also called opalescent feldspar, being remarkable for its beautiful play of colours), chiefly from the coast of Labrador and from the transition syenite of Laurwig in Norway ;—*adularia* or *naker feldspar*, principally found on mount St. Gothard, but not in the valley of Adula from which its name is derived : the fine variety from Ceylon, when cut *en cabochon*, is called moon-stone ; and a yellow naker feldspar with reddish dots has obtained the name of sun-stone, which is also sometimes given to the beautiful avanturino variety of common feldspar placed in this glass-case.

Case 30. Feldspathic substances continued :—*ice-spar* and *sanidine* or glassy feldspar, both nearly allied to common feldspar ; *albite* or *cleavelandite*, the finest specimens of which are those from Dauphiné and Siberia ; and *pericline*, united by some mineralogists with the preceding species, from St. Gothard, Tyrol, &c. ;—*anorthite* from Vesuvius ;—*oligoclase*, also called natron-spodumen—together with some other species separated, perhaps unnecessarily, from common feldspar and cleavelandite ;—*leucite* or amphigène, chiefly from Vesuvius, in separate crystals of various sizes and degrees of transparency, massive, embedded in pyroxenic and other lavas ;—*triphane* or *spodumen* and *petalite* : substances in which lithia, or the oxide of lithium, was first discovered by Arfvedson.

Case 31. This Case contains—*nepheline*, from Mount Vesuvius, with which are now combined several varieties of the *elæolite* or fettstein of Werner ;—*wernerite*, under which name, formerly confined to some varieties of common and compact scapolite, are now united the *meionite* of Vesuvius, and the greater part of the *scapolite* of Werner, the *paranthine* and also the *dipyre* ; substances which, together with several others provisionally placed in this glass Case, stand in need of further investigation as to their chemical and crystallographical characters.

Case 32 contains *micaceous* and *talcose* substances. Our imperfect knowledge of the optical properties and chemical constitution of many varieties of the former, does not admit of their being arranged according to those distinctive characters ; such varieties as have been more closely examined in this respect, may be divided into *potassa-mica* (by far the most common), which has two axes ; *magnesia-mica* (from Vesuvius, Siberia, and Monroe, in New York), which has but one axis ;—and the *lithia-mica*, which besides the beautiful peach-blossom, red, violet,

greenish-grey, and white scaly varieties known by the name of *lepidolite*, from Rõzna in Moravia, likewise comprises several large-foliated varieties of what was formerly considered as common mica, such as that from Zinnwald in Bohemia and Altenberg, accompanied by apatite, tinstone, and topaz.—The species and varieties of the talcose substances are likewise very imperfectly understood. Among the specimens of *talc* in this glass Case may be specified the common or Venetian (which enters into the composition of cosmetics), and the indurated talc; to the former of which may be referred the green radiated variety from Siberia, composed of distinct groups of small diverging laminae, and to which the name of *pyrophyllite* is commonly given;—*agalmatolite*, (Werner's bildstein, Haüy's talc glaphique), employed by the Chinese for carving images, vessels, &c.;—*chlorite*, crystallized in aggregated, small, modified rhombic prisms; the earthy and foliated varieties, coating crystals of octahedral magnetic iron-stone, &c.;—*pinite*, crystallized in regular hexagonal prisms, and *gieseckite*, from Greenland, which appears to be a variety of this species.—*Fahlunite*, under which name several distinct substances have been noticed by authors.

Case 33. This and part of the following Case chiefly contain substances related to hornblende or amphibolic minerals, among which may be specified the *basaltic* and *common hornblende*, including the *pargasite*;—the *actinolite* or *strahlstein* (divided by Werner into the glassy, common, and fibrous varieties);—the *grammatite* or *tremolite* (so called from Val Tremola, where, however, it is not found), among the specimens of which are the fine, fibrous varieties, resembling asbest; the glassy tremolite, in dolomite and granular limestone, &c.—*Arfvedsonite*—*Anthophyllite*.

Case 34. Part of this Case is filled with the mineral substances called *asbestine*, many of which appear to pass into some of the varieties of amphibole in the preceding glass Case. Among these may be observed specimens illustrative of the transition from a very close to a loose-fibrous structure;—several varieties of the *flexible asbest* or *amianth*, with some antique incombustible cloth, paper, &c., made of it;—the varieties called common and schiller-asbest, mountain wood, mountain cork, or nectic asbest, &c., separate, and in combination with other substances;—the *blue* and *yellow asbest* from South Africa, to which the name of *krokydalite*, has been given. The remainder of this Case contains pyroxenic minerals:—*augite*, in separate crystals, and embedded in lava from Vesuvius, together with groups of well-defined crystals from Arendahl in Norway, where this substance occurs in primitive rocks;—the *jeffersonite*;—the granular variety called *cocolite*;—the varieties of *diopside*, at first considered as a distinct species, including the mussite and alalite from Piedmont;—the *sahlite* or malacolite, to which also belongs the *baikalite*, of which a few fine specimens are here deposited; the *pyrgome* or *fassaite*, and the *achmite*. The *metalloid diallage* or *diallagite*, also called schiller-spar, from the Hartz, Salzburg, &c., the *bronzite* and the *hypersthène* or *paulite* (Labrador hornblende of Werner), may likewise be referred to this tribe of minerals.

Case 35. Among its contents may be specified the mineral substances which have been described under the appellations of thallite, arendalite, acanticone, delphinite, &c.; most of these are Werner's *pis-*

tacite and are now more generally designated by the name of *epidote*, given to them by Häüy. To this also belongs the *manganesiferous epidote*, considered by some as an ore of manganese.—*Cumingtonite*.—*Zoisite*.—Among the specimens of *idocrase* (vesuvian of Werner), the more conspicuous are the large beautiful crystals (the unibinaire of Häüy), discovered by Laxmann on the banks of the Vilui in Kamschatka, embedded in a steatitic rock; those from Vesuvius, where this substance occurs accompanied by other volcanic ejections, have, in Italy, obtained the name of Vesuvian gems, hyacinths, and chrysolites; the varieties called *egerane*, *loboite*, and that from Tellemarken in Norway, coloured blue by oxide of copper, and known by the name of *cyprine*;—*essonite* (*hessonite*) or *cinnamon-stone*, chiefly from Ceylon, which was supposed to contain zirconia, till a more accurate analysis proved it to be nearly allied to vesuvian: most of the hyacinths of commerce are cinnamon-stone.

Case 36. The greater part of this Case is appropriated to the various species and varieties of the garnet tribe, formerly divided into noble and common garnets. Among the more distinct chemical species now established are:—the *pyrope* or chrome garnet, generally called Bohemian garnet, which occurs in rounded grains, and also embedded in serpentine, &c.;—the *colophonite*, so called from its resemblance to rosin, from Norway and North America;—the *melanite*, found particularly in the neighbourhood of Frascati;—the *grossular* or Wilui garnet, a fine light-green species from Kamschatka, so called from the fancied resemblance which its separate crystals bear to a gooseberry;—the *allochroite*, also called splintery garnet, from Drammen, in Norway;—the *roman-zovite*. In this Case are also deposited—the *gehlenite*, from the Monzoni in Tyrol, to which species the *melilite* from Capo di Bove, near Rome, is referred by some mineralogists;—the *iolite* or *pehoma*, now generally called *dichroite* (from its exhibiting two different colours when viewed in different positions), massive and crystallized, from Capo di Gate, from Greenland, Bodenmais in Bavaria, and Orayervi in Finland (*steinheilite*);—the *sordawalite* from Finland;—the *karpholite* from Bohemia, &c.

Case 37. This Case contains the following substances:—*staurolite*, a bisilicate of alumina and of oxide of iron, called also granatite and cross-stone, among the specimens of which are the fine macled crystals from Brittany, and the modifications of the simple crystals from St. Gothard, accompanied by prisms of disthène, perfectly similar to those of the staurolite, and sometimes longitudinally grown together with them.—Silicates containing yttria and protoxide of cerium; viz. the *gadolinite*, from Ytterby and Kärarfvet in Sweden; the *allanite* from Greenland (to which may be referred the *cerine* of Bastnaes); the *orthite* and *pyrorthite*.

Silicates containing glucina, the principal species of which is the *emerald*, or *beryl*, the former being a variety which owes its fine green colour to oxide of chromium: from Santa Fé, from Mount Zahara in Egypt, and from Heubachthal in Salzburg, embedded in mica slate;—beryls of various colours, the more common of which is the variety called aquamarine; the perfectly white and limpid, and fine oil green varieties from the isle of Elba, and from Nerchinsk and Odontchelong in Siberia; the large beryls of Limoges, and from Acworth in New Hamp-

shire, where crystals weighing upwards of fifty-nine pounds have been found, (the fragment of a prism in the centre of the Case weighs nearly forty-three pounds);—the *euclase*, a rare crystallized mineral substance, discovered by Dombey in Peru but since only found as loose crystals, at Capao, near Villaricca, in Brazil, and in the chlorite slate of that neighbourhood;—*helvine*, a substance which is considered by some as a triple silicate of glucine, iron and manganese. In this Case are also placed the specimens of *lazulite* or lapis lazuli, (which furnishes the valuable pigment known by the name of ultramarine,) massive and exhibiting planes of the rhomboidal dodecahedron; the *haiÿne*, and a few other of the imperfectly known silicates of alumina, soda and lime combined with sulphates: such as the *spinellane*, &c.

Case 38. In this Case are provisionally placed (besides *sodalite*, *eudialyte*, and *pyrosmalite*, substances which, being chloriferous, may perhaps be referred to the chlorides, Case 60), the suites of *tourmaline* and *shorl*, many varieties of which have been found to contain boracic acid. Among those here deposited are, the *rubellite*, also called siberite (tourmaline apyre of Haiÿ), a specimen of which, remarkable both for size and form, is that in the centre of the Case: it was presented by the king of Ava to the late Colonel Symes, when on an embassy to that country, and afterwards placed by the latter in the Hon. Charles Greville's collection; other red and blue varieties, chiefly from Siberia and from Massachusetts in North America; the flesh-coloured tourmaline, from Rozena in Moravia; the dark green, called Brazilian emerald; the asparagus-green variety in dolomite, from Campo Longo; varieties of common shorl;—*axinite*, in most beautiful crystals, from Bourg d'Oisans in Dauphiny, from Norway, &c.

Case 39. The silicates terminate in this glass Case, with the topaze and chondrodite, two species which, from their chemical composition, might be classed with the fluorides (in Case 59):—among the specimens of *topaz* here deposited may be specified a series of crystals of Saxon, Brazilian, and Siberian varieties, among which there are several new modifications; Saxon varieties imbedded in the topaz rock, an aggregate of topaz, shorl, quartz, and sometimes mica; fine Brazilian topazes, yellow and pink, imbedded in rock crystal, &c.;—also the *pyrophyssalite* from Fahlun in Sweden, and the *pycnite*, formerly considered as a variety of beryl, are referable to topaz;—*chondrodite* (maclurite, brucite) from New Jersey, and from Pargas in Finland.

The rest of this Case is occupied by oxide of titanium and titanates;—*rutile*, also called titan-shorl, massive, crystallized, and fibrous, to which belongs the reticulated variety with golden varnish, from Moutier near the Montblanc; acicular and capillary crystals of rutile in rock crystal, from Brazil, &c.;—the *anatase*, or octahedrite, from Bourg d'Oisans;—the silico-titanate of lime, called *sphene* or *titanite*, among the varieties of which are those called brown and yellow menakan-ore, in large crystals, from Arendal in Norway, and that from St. Gothard denominated *rayonnante en gouttière* by Saussure, on feldspar with chlorite, &c.;—titanate of lime with titanate of uranium, &c., called *pyrochlore*, from Fredriksvärn in Norway;—*titanates of iron*, to which belong the *nigrine*, *iserine*, *ilmenite*, and most of the volcanic and other specular iron with glassy fracture;—*crichtonite*, *brookite*, *polymignite*, &c.

Case 40. Columbates ;—*columbite* or *tantalite* : a portion of the specimen of this substance from North America, in which Mr. Hatchett discovered the metal ; variety of the same from Rabenstein, Bavaria, accompanied by beryl and uranite ;—the *Finbo-* and the *Brodbo-tantalites* of Berzelius ;—*yttrotantalite*, from Ytterby.

Oxides of antimony and antimoniates :—*antimony-ochre* on native and grey antimony ;—*white antimony*, formerly considered as a muriate : on galena, quartz, &c. ;—*red antimony* (a combination of oxide and sulphuret of this metal), mostly in fine capillary crystals, from Bräunsdorf in Saxony, Malazka in Hungary ; and an argentiferous variety from the Hartz, in fibrous flakes resembling tinder, and therefore called *zunderertz* (tinder ore).

Tungstates :—*tungstate of lime* (schéelin calcaire of Haiiy), also called *scheelite* and *tungsten* (heavy stone), among the more interesting specimens of which is the primitive acute octahedron from Allemont in Dauphiny ;—*tungstate of iron and manganese* or *wolfram*, massive and crystallized, from Bohemia and other countries ; also as octahedral supposititious crystals, derived from tungstate of lime ;—*tungstate of lead*, or *scheel-lead*, from Zinnwald in Bohemia, formerly confounded with the molybdate of this metal.

Molybdic acid and molybdates ;—*ochry molybdenum* or *molybdic acid*, as a yellow powder on the sulphuret of this metal, from Sweden, &c. ;—*molybdate of lead*, or yellow lead ore, massive, lamelliform, and crystallized in splendid groups on compact limestone, &c. ; chiefly from Bleiberg in Carinthia.

Case 41. Oxide of chromium and chromates :—a suite of specimens of *chromate of lead*, red lead ore, *crocoisite*, from the gold mines of Beresof in Siberia, where it chiefly occurs in a kind of micaceous rock, mixed with particles of quartz and brown iron-stone, and from Brazil ;—*chromate of lead and copper*, called *vauquelinite*, a concomitant of the Siberian red lead ore ;—*chromate of iron*, from the department of Var in France, and from Baltimore in Maryland, intermixed with talc stained purple by chromic acid.

Vanadic acid and vanadiates. Vanadium was discovered in some ores of iron from Taberg in Småland, by Sefström : by Del Rio the acid of this metal, which he called erythronium, had been found, combined with oxide of lead, in the brown lead ore of Zimapan in Mexico. For the discovery of the *vanadate of lead* (*johnstonite*) at Wanlockhead, and the analysis of this mineral substance, science is indebted to Mr. Johnston, of Edinburgh ;—vanadate of lead from Beresof, Siberia.

Boracic acid (*sassoline*) and borates ;—*borate of soda*, the salt known by the names of *borax* and *tincal*, from Tibet, Monte-rotondo, Tuscany, &c.—*borate of magnesia* or *boracite* in separate crystals, and the same embedded in gypsum ;—*datolite*, being a borate with a tri-silicate of lime, from Arendal in Norway ; the variety from Sonthofen (supposed to be a distinct species, called *humboldtite* by Lévy) ; and the globular-fibrous variety (which has received the name of *botryolite*) likewise from Arendal.

In this Case begins the family of the Carbonates.—*Carbonate of soda*, from various localities.—*Carbonate of strontia*, called *strontianite*, chiefly from Strontian in Argyleshire, in prismatic and acicular crystals, which latter have sometimes been mistaken for arragonite.—*Carbonate of*

baryta or *witherite*, among the specimens of which may be particularised the beautiful groups of double six-sided pyramids, and those of six-sided prismatic crystals.—*Barytocalcite*, from Alston Moor in Cumberland.

Case 42. *Carbonate of lime*. The whole of this Case is appropriated to the species called *arragonite*, among the principal specimens of which are the groups of prismatic crystals from Kosel, Bohemia, Arragon, &c.; those of the coralloid variety of this substance from Eisenertz in Stiria, formerly called *flos ferri*, &c. To the massive varieties some of the calcareous deposits of Carlsbad in Bohemia may be referred. In the next six Table Cases are deposited the different sub-species or varieties of common carbonate of lime or *calcite*.

Cases 43 and 44. Crystallized varieties of *calcite* (calcareous spar). Among the specimens in the first of these Table Cases may be specified those illustrative of their double refraction, cleavage, supernumerary joints, colour, &c.; likewise the various secondary obtuse and acute rhombohedrons; among the former of which the most common, but not the least striking, is the inverse variety of Haiüy, so called from its being as it were an inversion of the primitive rhombohedron of calcareous spar; and the same with a considerable admixture of quartz, commonly called crystallized sandstone of Fontainbleau, &c.; also many interesting and beautiful specimens, from the Hartz, Derbyshire, &c., of prismatic and pyramidal modifications of the same substance.

Case 45, besides additional chiefly prismatic varieties of crystallized calcite, contains several belonging to the *stalactic* and *fibrous* varieties of that substance, the most beautiful modifications of which latter are those from Cumberland and Sweden, with pearly lustre (which has obtained for the former the appellation of satin-spar), and that in coloured layers from Africa.

Cases 45 A. and 45 B. are set apart for polished specimens of such granular, compact and fibrous varieties of calcite as are familiarly known by the appellation of marbles, and of those that bear the name of alabaster in common with the finer varieties of sulphate of lime. Among the varieties of shell limestone in Table Case A., the most esteemed for ornamental purposes is the Carinthian lumachella, or fire marble.

Case 46 contains the remaining varieties of calcite, among which may be specified the well-known depositions from the hot springs of Carlsbad in Bohemia, particularly the pisiform limestone, or *pea stone*, as also the globular variety (considered by some as magnesian limestone) found in the bed of a small river near Tivoli, and known by the name of Confetti di Tivoli,—the *tufaceous limestone*, in porous, spongy, cellular, tubular and other imitative forms, as incrustation on various objects, such as on the human skull here deposited, which was found in the Tiber at Rome; calcareous deposition formed in a square pipe in a coal mine in Somersetshire; casts made at the baths of San Felippe, where moulds of medals, gems, &c., are placed in suitable situations to receive the spray impregnated with calcareous particles.—*Chalk*.—*Anthraconite* or *madreporite*.—*Marle*, &c.

Case 47. In this Case, besides some specimens of *carbonate of magnesia*, or *magnesite*, from Baudissero and from New Jersey, are placed those substances which, being chiefly composed of carbonate of lime and carbonate of magnesia, are called *magnesian limestone*, or dolomite,

comprising Werner's rhomb-spar, dolomite and brown spar. Among the varieties of the first of these sub-species are those called *miemite*, *tharandite*, and some modifications of *pearl spar*; among those of *dolomite*, a remarkable one is that from Pittsfield, Massachusetts, North America, which exhibits a considerable degree of flexibility: and another having the same property will be found among the singular varieties of magnesian limestone from the vicinity of Sunderland.

Case 48 contains Werner's *brown-spar*, some of the varieties of which are with difficulty distinguishable from rhomb-spar and from iron-spar; several interesting specimens for figure, colour and lustre, are deposited in this case.—*Carbonate of iron*, or *iron-spar*, crystallized, fibrous, massive, and botryoidal (*sphaerosiderite* of Hausmann).—*Carbonate of manganese*, or *manganese spar*, crystallized and in globular and botryoidal shapes of various shades of rose colour, on sulphuret of manganese, &c.

Case 49. One half of this glass Case is occupied by the several varieties of *carbonate of zinc*, or *zink-spar*, (also called *calamine*, in common with the silicate of zinc in Case 26,) crystallized, botryoidal, and in other forms, among which are the pseudomorphous crystals, derived from modifications of carbonate of lime.—The other half contains the *carbonates of lead*, *lead-spar*, or *white lead ore*, among which are the delicately acicular varieties from the Hartz, and from Cornwall, accompanied and partly coloured by green carbonate of copper; the crystallized varieties from Siberia, Mies in Bohemia; the pulverulent variety, &c.

Case 50. In this and the following Case are deposited the *carbonates of copper*, viz. the *blue copper*, or *copper-azure*, the more remarkable varieties of which are those from Chessy, and from the Bannat, combined with various substances;—the earthy varieties, some of which have been used as pigments under the name of mountain-blue;—those crystallized varieties which, passing from the state of blue into that of green carbonate, have, by Haüy, been called *cuivre carbonaté épigène*.

Case 51. The green carbonates of copper, among which may be specified the fine and rare varieties of *fibrous malachite*, in acicular crystals, and massive with fibrous structure and velvety appearance, accompanied by carbonate of lead, &c.; and, among the specimens of *compact malachite*, those characteristic and splendid ones from the Gumashevsk and Turja mines, in the Uralian mountains.

Case 52. *Arsenious acid* and *arseniates*: the former (also called *arsenic-bloom*, or octahedral oxide of arsenic) is frequently confounded with arseniate of lime, and the white octahedral crystals, often seen in collections, on realgar and orpiment, are generally artificially produced in the interior of mines.—The arseniates in this glass Case are:—*arseniate of lime*, called *pharmacolite*, chiefly in white acicular crystals, from Wittichen in Suabia, and Riegelsdorf in Hessa.—*Arseniate of iron* or *pharmacosiderite*, which occurs only crystallized, chiefly in cubes (whence Werner's name of *Würfel-ertz*), from Cornwall, from San-Antonio-Pereira, Brazil, on hydrous oxide of iron, &c.;—*skorodite*, a substance which appears to be closely allied to Bournon's martial arseniate of copper.—*Arseniates of copper*, consisting of the *foliated arseniate* or *copper-mica*, the *lenticular arseniate* or *lentil-ore*, and the *olive-ore* of Werner, which

are formed into five species by Bournon, and probably admit of further subdivision. The *euchroite* also belongs to these, and the *kupferschaum* of Werner, at least that from Falkenstein in Tyrol: for some other varieties bearing that name appear to be referable to carbonate of zinc.—*Arseniate of cobalt*, or red cobalt ore, comprising the earthy (*cobalt crust*) and the radiated (*cobalt-bloom*) varieties, from Salfeld, Allemont, &c.—*Arseniate of nickel*.

Case 53. This, and part of the next Case, contain the phosphates: among the *phosphates of lime* may be specified several very scarce and interesting crystallizations of Werner's *apatite*, such as the large violet-coloured crystals from St. Petersburg; the groups from Ehrenfriedersdorf, Maggia on St. Gothard, Traversella in Piedmont, &c.; the variety called *asparagus-stone*, particularly the specimens from Jumilla in Murcia; the Norwegian *apatite* called *moroxite*; also the *phosphorite* or fibrous and compact phosphates of lime, and the pulverulent variety, known by the name of earth of Marmorosh, and which was formerly considered as a variety of fluoride of calcium (fluuate of lime).—*Phosphate of lead*, or *pyromorphite*, generally divided into *brown lead ore* and *green lead ore*: among the varieties of the former, the more remarkable are the large six-sided prisms from Huelgoet in Brittany; of the latter we have the massive botryoidal (*traubenertz*), the spicular, and crystallized varieties, of various shades of green passing into greenish-white, into yellow and orange.—*Phospharseniate of lead*, from Siberia, Cornwall, Saxony, &c.—*Phosphate of yttria*, or *phosphyttrite*, a very scarce mineral substance, first found in the granite of Lindenäs in Norway, and subsequently, in equally small quantities, at Ytterby in Sweden.—*Phosphate of copper*, of which the best characterised species are—the octahedral, or *libethenite*, from Libethen in Hungary; and the prismatic, or *rhenite*, from Rheinbreitenbach, where it occurs with quartz which sometimes passes into calcedony.

Case 54. Part of this Case is occupied by the remaining phosphates. *Phosphate of iron*, Werner's *vivianite*, in variously grouped crystals (from Bodenmais in Bavaria, from Cornwall, from Fernando Po, &c.), massive and pulverulent: among the specimens of the latter are the massive variety of New Jersey, and several earthy blue varieties in clay, peat, wood, &c.: the *chalcociderite* of Ullmann, Werner's *green iron earth*, and Thomson's *mullicite*, are likewise phosphates of iron.—*Phosphate of manganese* or *triplite*, from Chanteloube, near Limoges, in the department of Haute Vienne in France, where several other mineral substances have lately been found, the essential component parts of which are iron, manganese, and phosphoric acid.—*Triphylite*, a phosphate of iron, manganese and lithia; *triplite*; *delvouxite*, &c.—*Phosphates of alumina*, to which belong—the *wavellite*, a substance which was originally mistaken for a hydrate of pure alumina, and therefore called *hydrargillite*, from Devonshire, Ireland, Brazil, Greenland, from Amberg in Bavaria (called *lasionite*), from Aussig in Bohemia, on sand stone, &c.—the *klaprothite*, called also *blue spar*, and *lazulite*, and is therefore sometimes confounded with the lapis lazuli in Case 37;—together with some other substances of which no exact analyses have as yet been published, though they are known to be chiefly composed of alumina in combination with phosphoric acid, such as—the *calcite*, or real *turquoise* (*firúzah* in Persian), an opaque gem found chiefly at Nisha-

pur, in the province of Khorasan, Persia, in nodules or as small veins traversing a ferrugino-argillaceous rock, and greatly esteemed on account of its beautiful blue colour, which will in most cases be sufficient to distinguish it both from the blue silicate of copper and from fossil bones (particularly teeth) impregnated with blue phosphate of iron or carbonate of copper, some of which substances are vulgarly called occidental turquoises.—The *hakoxene*, a rare substance of a crystalline diverging-fibrous structure and yellow colour, found in the fissures of argillaceous iron-stone, near Zbirow in Bohemia;—and the *childrenite* from Tavistock, in Devonshire: both which mineral substances contain alumina and oxide of iron combined with phosphoric acid, but require to be subjected to closer chemical examination.—*Phosphate of oxide of uranium*:—to these belong the *yellow uranite* or *uran-mica* from Autin, Limoges, Bodenmais; and the *green uranite*, or *chalcolite*, chiefly from Cornwall and Saxony: both of them phosphates of oxide of uranium, but distinct by containing, the former a small portion of phosphate of lime, and the latter an equivalent portion of phosphate of copper.

This Case also contains the nitrates and part of the sulphates. *Nitrate of potassa*, native *nitre* or *saltpetre*, found as efflorescence, mixed with other nitrates, and as crystalline crusts; from Pulo di Molfetta in Apulia, from near Burgos in Spain, &c.—*Nitrate of soda*.—*Sulphate of soda*, or *glauber salt*.—*Thenardite*, a hydrous sulphate of soda, found in crystalline crusts, at the bottom of the briny waters at the Salines d'Espartines, five miles from Madrid;—*glauberite*, a mineral composed of the anhydrous sulphates of soda and of lime, from the salt mines of Villarubia and Aranjuez in Spain, embedded in salt and clay.—Among the specimens of *sulphate of strontia*, or *celestine*, the more remarkable are, the splendid groups of limpid prismatic crystals from La Catolica in Sicily, accompanied by sulphur; those from the vicinity of Bristol, from St. Beat in the Dép. des Landes; those from Falkenstein in Tyrol; from the salt mines of Aranjuez; the acicular variety in the hollows of compact sulphate of strontia from Montmartre; in the fissures of flint and in chalk, from Meudon; the radiated and fibrous celestine from Pennsylvania, &c.

Case 55. The whole of this Case is occupied by the *sulphates of baryta*, (*baroselenite* or *heavy-spar*,) among which may be specified the splendid groups of straight-lamellar crystallized heavy-spar, especially those from Schemnitz in Hungary, and Clausthal in the Hartz, Traversella in Piedmont, &c.; the curved-lamella varieties; the columnar, resembling carbonate of lead; the radiated, to which belongs the *Bolognese spar*, from Monte Paterno, near Bologna, from Bavaria, &c.; the beautiful variety called *ketten-spath*, or *chain-spar*, from the Hartz; the fibrous and the granular varieties; the compact, called *barytic* or *ponderous marble*, &c.; fetid *baroselenite* or *hepatite*, an intimate mixture of sulphate of baryta with bituminous matter; earthy *baroselenite*: also the *wolnyne* from Muzsay in Hungary, a variety of sulphate of baryta.

Case 56 contains the *sulphates of lime*, the principal varieties of which are,—the *selenite* or *sparry gypsum*, in detached crystals and splendid groups, from Bex in Swisserland, Montmartre near Paris, Oxford, &c.; from St. Jago di Compostela, stained by red iron ochre; the fibrous gypsum with silky lustre, from Derbyshire, Swisserland,

Montserrat; the granular gypsum or alabaster; the compact variety, to which belongs the stalagmitical gypsum from Guadaloupe; the scaly gypsum (chaux sulphatée niviforme of Haüy) from Montmartre; common earthy gypsum, &c.—*Anhydrous sulphate of lime*, or *anhydrite*, (also called *cube-spar* and *muriacite*,) crystalline, fibrous, granular and compact; to the last of which belong some of the Italian varieties known by the name of *bardiglio* and *bardiglione*, as also the singular fibrous-compact variety, familiarly called *tripe-stone* (pierre des trippes), from the salt mines of Wieliczka.

Case 57. Sulphates continued:—*sulphate of magnesia*, or *epsomite*, generally occurring in crystalline fibres: the fine variety from Calatayud in Arragon; also the *haar salt* (capillary salt) of Idria belongs to this species, and the stalactic cobalt-vitriol, as it is called, from Herrengrund in Hungary, which is only sulphate of magnesia, coloured red by oxide of cobalt.—*Polyhalite*, a chemical compound of several sulphates, formerly mistaken for anhydrous sulphate of lime: compact and fibrous, from the salt formation of Berchtesgaden in Bavaria, and Ischel in Austria.—*Sulphate of zinc*, *white vitriol* or *gallitzinite*.—*Sulphate of iron*, *green vitriol*, or *melantherite*, (a salt mostly produced by the decomposition of iron pyrites,) in beautiful large rhombohedral crystals, from Bodenmais in Bavaria, and massive, and in stalactic-fibrous forms, such as the specimens from the Rammelsberg, in the Hartz, where it also occurs in the form of yellow scales, known by the name of *misy*; and as concretions of a red colour, called *vitriol-roth* or *botryogene*: the plumose vitriol (*federsalz*), and a botryoidal-reniform substance called *bergbutter*, are nothing but casual mixtures of sulphate of iron and hydrous sulphate of alumina.—*Sulphate of copper*, or *copper vitriol*:—the finest sky-blue specimens here deposited, together with the stalactic, fibrous and crystallized varieties, (the large group of crystals is artificially prepared,) are from Herrengrund in Hungary. There are also two or three sub-sulphates of copper placed in this Case, which, however, stand in need of more accurate chemical examination.—*Sulphate of oxide of uranium* or *johannite*, from Joachimsthal, Bohemia.—*Sulphate of lead*, *lead-vitriol*, or *anglesite*, of which we have a suite of specimens with brilliant and well defined crystals from Badenweiler in Suabia, from the Parys mine in Anglesea, &c.; the *sulphato-carbonate* (*lanarkite*), and *sulphato-tricarbonat*e (*suzannite*), the *cupreous sulphato-carbonate* (*caledonite*) of lead, &c., from Leadhills, &c. The rest of this Case is occupied by *sulphates of alumina*:—common *alum*, crystallized, fibrous, &c., from various places; and the hydrous *sub-sulphate of alumina*, called *aluminite*, or *websterite*, from Sussex and from Halle in the territory of Magdeburg, which was by some mistaken for pure alumina, and by others for hydrate of alumina with mechanically admixed sulphate of lime: it must not be confounded with another substance, also called *aluminat*e or *alum-stone*, (alunite of some mineralogists,) from Tolfa, &c., which is a basic sulphate of alumina and potassa.

Case 58 contains the *fluorides*, of which by far the most important species is the fluoride of calcium, generally called *fluat*e of lime and *fluor-spar*: among its numerous varieties may be particularized, the rose-coloured crystals from Chamouni; the phosphorescent massive fluor-spar, called chlorophane, from Siberia; the varieties called fortification-fluor; earthy and compact fluor, &c., chiefly from Derbyshire

and Saxony.—*Fluoride of calcium, yttrium, and cerium*;—*yttrocerite*; and some related minerals from Finbo and Brodbo near Fahlun in Sweden.—*Fluoride of sodium and aluminum*, called *cryolite*, found in West Greenland: pure and mixed with brown iron stone, Gelena, &c.

Case 59 contains the *chlorides*.—*Chloride of sodium (muriate of soda)*, or *rock salt*: the most interesting specimens here deposited of this important mineral substance are the crystallized varieties; the massive and fibrous coloured varieties, the red chiefly from Hallein in Tyrol, the blue and violet from Ischel in Upper Austria; the stalactical rock salt from Mexico, &c.—*Chloride of ammonium* or *sal-ammoniac*, from Vesuvius, Saint Etienne en Forez, &c.—*Chlorides of lead*: to these belong, the *cotunnite* from Vesuvius; the basic muriate of lead from Mendip; and the *murio-carbonate of lead* from Derbyshire, of which most rare substance very perfect specimens are deposited in this glass Case.—*Chloride of copper* or *atacamite*, in crystallized splendid groups, chiefly from Remolinos, Solidad and Veta negra della Pampa larga, in Chili; what was originally termed Peruvian green sand, or atacamite (being obtained from the desert of Atacama between Chili and Peru) is now known to be artificially produced by pounding the crystallized and laminar varieties for the purpose of using the sand (*arenilla*) in lieu of blotting paper.—*Chloride of silver*, called also *horn-silver* and *corneous silver*: amorphous, botryoidal, in laminæ, and crystallized in minute cubes and octahedrons, from Veta Negra in Chili, the Saxon Erzgebirge, &c.—*Chloride of mercury*, or *horn-quicksilver*, with native mercury from Moschel-Landsberg, Almaden, &c.

Case 60 contains a small collection of organico-chemical, or such mineralized substances as are composed after the manner of organic bodies, from which they derive their origin. They are divided into salts, resins, bitumen, and coal. To the salts belong—the *mellate of alumina*, also called *mellite* or *honey-stone*, found in the beds of brown coal at Artern in Thuringia; and the *oxalate of iron*, formerly known by the name of resinous iron, but to which that of *humboldtite* is now generally applied.—To the resins may be referred—the *amber*, of the varieties of which a considerable suite is deposited, many of them enclosing insects, &c.; to which, for the sake of comparison, are added, specimens of recent copal, likewise containing insects;—*fossil copal* or *Highgate resin*;—*retinite* or *retinasphalt*, found at Bovey; together with some other related resinous substances;—the *idrialite*, to which the bituminous cinabar or brand-ertz is partly referable. To the bitumina belong the varieties of *mineral pitch* of all degrees of consistence, from the fluid *naphtha* and *mineral oil* or *petroleum*, to the solid and hard *asphalt* and *jet* or *pitch coal*; the *elaterite* or elastic bitumen of Derbyshire, (a suite of specimens exhibiting all degrees of solidity, from that of honey to that of a compact ligneous substance). With these is also placed the *dapêche*, an inflammable fossil substance found by Humboldt in South America, having several properties of the common caoutchouc or Indian rubber;—the *hatchettine*, a bituminous substance from Merthyr Tydvil in South Wales, the *scheererite*, &c.—Coal: *black coal*, and *brown coal*—of these a few specimens only are deposited, their different varieties being rather objects for a geological collection.

The collections of Organic Remains begin in Room I. with that of the Fossil Vegetables, at present deposited chiefly in the Wall Cases of the S. and W. sides of the room. A systematic botanical arrangement has been adopted, so far as the limited space and the as yet doubtful nature of many of those fossil remains admitted of it. Case 1 is set apart for the yet small number of fossils apparently of the class of submerged ALGÆ, such as *Fucoides*, *Confervites*, &c. In the same Case are provisionally placed those impressions on coal slate, of plants with verticillated leaves, known by the generic names of *Asterophyllites*, *Annularia*, &c., and supposed by some to be referable to the NAIADES; as also a few that appear to bear affinity to the MARSILACEÆ, such as *Pilularites*, *Solenites*, &c.; together with some other vegetable remains, the nature of which is not yet determined.

The upper division of Case 2 is occupied by the EQUISETACEÆ, most of which may be united under the generic name of *Calamites*, the absence of the sheaths by which the latter are said to be distinguished from real *Equiseta*, being a character not to be depended upon. The species of *Calamites*, almost all from the rocks of the most ancient coal formation, are far from being satisfactorily determined, their internal structure being entirely unknown. The species of *Calamitea* of Cotta, (Case E.,) which exhibit a peculiar organic structure, can scarcely be said to belong to the same natural order. The genus *Phyllothea* of Brongniart, from the coal sand-stone of Port Jackson, in which the sheaths are prolonged into leaves, is a distinct genus of this order; as is likewise the *Equisetum Lyellii* from Pounceford.

The lower division of Case 2, and part of 3, contain the Ferns (FILICES), most of them as impressions in clay slate forming the carboniferous strata of the transition series. Many of them bear a strong resemblance to existing, especially tropical, species; and fructification, distinctly exhibiting the sporangia variously disposed in sori, &c., has latterly been observed in several species; but the classification founded on characters derived from them and the distribution and ramifications of the nerves, though of great importance in the classification of recent ferns, is obviously, at least in the present state of our knowledge, inapplicable to those in a fossil state. The arrangement and the generic names here adopted, with occasional deviation, are those proposed in the concluding numbers of the late Count Sternberg's work. The species, as far as determined, are all named; the synonymy being added in most cases where it appeared requisite.

In the upper division of Case 3, and part of 4 and 5, are deposited those genera which are generally supposed to belong to the family of LYCOPODIACEÆ, of which *Lepidodendron* of Sternberg (*Sagenaria* of Presl.) is the principal one. Much uncertainty still prevails in the determination of the genera and species of this family. Some of them appear to exhibit an internal structure intermediate between that of the Lycopodiaceæ and the Coniferæ; but *Lepidodendron punctatum* of Sternberg, (of the unique specimen of which, in Mr. Cotta's collection, a portion is seen in Case 3,) presents the organization of a real arborescent fern. Nearly allied to the *Lepidodendra* are several vegetable fossils, considered as distinct genera, among which may be specified *Lepidophyllum* and *Lepidostrobus* (Case 4) of Brongniart, (the former perhaps only the leaves, the latter the fruits of species of *Lepi-*

dodendron or *Lycopodites*,) the *Ulodendron* (*Lepidod. ornatissimum*, Sternb.), the *Bothrodendron* of Lindley, the *Rhytidolepis* of Sternb., &c.

In the upper division of Case 5 are placed the species of *Sigillaria*, (including *Favularia*,) Brong., which are very distinct in their structure from arborescent Ferns, with which they have by some been arranged. To these also belongs the *Megaphyton* Nöhd.; of which the original specimen figured and described by Artis is deposited here. In the lower division of the same Case, are seen some very interesting vegetable remains, some of which undoubtedly are referable to the family of ASPHODELEÆ, such as the *Dracæna Benstedii*, (from the Iguanodon quarry near Maidstone,) so called after the discoverer of the fine specimens presented to the Museum. With these are placed magnificent specimens, from Dr. Mantell's collection, of the *Clathraria Lyellii* from the Wealden: the generic name, formerly synonymous with *Sigillaria*, is now exclusively given to this remarkable vegetable. *Sternbergia transversa* of Artis, (*Artisia* of Sternberg,) hitherto described and figured from very imperfect specimens, also probably belongs to this natural order. Another interesting vegetable of Dr. Mantell's discovery is the *Endogenites erosa*, of which many specimens from Hastings, &c., are deposited, exhibiting its structure: it seems related to the Palmæ, and is no doubt a congener of Cotta's *Porosus marginatus*, of which a specimen is added; but neither of those generic appellations appear to be admissible. There are also remains of real PALMÆ in this Case, such as the fruits from Sheppey, the cut and polished specimens of wood from Antigua, &c. Whether or not *Nöggerathia flabelliformis* and a related species are referable to them, remains doubtful.

The upper division of Case 6 contains only specimens of *Stigmaria*, a genus totally distinct from any other known of the natural orders of Lycopodiaceæ or Filices, to both of which its species have been referred by authors. Their internal structure, as proved by transversal sections of the stem, approximates to that of the EUPHORBIACEÆ. Below these, in the same Case, are placed various interesting specimens belonging to species of genera of CONIFERÆ, such as *Pinus*, *Araucaria*, *Thuyles*, *Volzia*, *Brachyphyllum*, &c. In another part of the same Case are deposited interesting remains of the natural order of CYCADEÆ, (among which may be specified the fine specimens from the oolitic formation at Whitby,) of various species of *Pterophyllum*, *Zamia*, *Ctenis*, and (on the top of the Case) the globular trunks (two of them cut and polished) of Dr. Buckland's *Cycadites megalophylla*, (Brongniart's *Mantellia nidiformis*,) from the oolite of Portland. Various other vegetable remains, especially of Dicotyledonous plants, such as those from the fresh water formation of Oeningen, &c., will hereafter be arranged in Table Cases to be made for their reception.

On the lower shelves of the Cases 3, 4, and 5, is placed a very extensive series of cut and polished specimens of fossil wood, most of them from the red sandstone formation of Chemnitz in Saxony, and New Paka in Bohemia, and many of them described and figured in Cotta's work: *Die Dendrolithen*, Dresd. 1832. The genera *Tubicaulis*, *Psaronius* (Staar-stein) and *Porosus*, no doubt belong to the Filices; many of the remainder are referable to the Palms, and a still greater portion of them to the Coniferæ; in the vicinity of which natural orders they are respectively placed in the Wall Cases.

The two Cases placed against the piers, between the windows of the E. wall of the room, contain a suite of varieties of wood opal from Van Diemen's land, presented by Mrs. Howley, the lady of His Grace the Archbishop of Canterbury.

Among the objects separately placed in Room I. are—near the window opposite to the Table Case containing the native silver, a branched variety of that metal from Kongsberg, presented by H. Heuland, Esq.;—in the window, near the Table Cases containing the sulphates, a very large mass of Websterite, from Newhaven, Sussex, presented by Dr. Mantell;—a large specimen of the brown coal of Iceland, called Surturbrand, presented by Sir Joseph Banks;—two busts carved in jet-like bituminous brown coal, the one of Henry VIII., the other of his daughter the Lady Mary.

The Wall Cases 1 to 4 in Room II. contain osseous remains (and casts of the same, marked with asterisks) of PACHYDERMATA and EDENTATA: among the more prominent specimens belonging to the former of these natural orders, may be specified the remains of the *Deinotherium*, the most gigantic of terrestrial mammalia, chiefly found at Eppelsheim, forty miles N.W. of Darmstadt,—jaws, tusks, molar teeth and other osseous parts of *Elephas primigenius* Blumenb., especially those of the Siberian variety, the Mammoth of early writers; and, above all, the cranium of the Himalayan Elephant, distinct from the preceding species, and to which the name *Elephas Cautlæi* may properly be given, as being among those presented by Capt. Cautly, to whose indefatigable exertions science is indebted for the formation of a magnificent assemblage of fossil remains obtained in the Siwâlie or Sub-Himalayan ridge situate between the Jumna and Sutlej rivers, the greater portion of which collection is about to be deposited in the National Museum. From the same collection is the most perfect and instructive skull of a species of Mastodon, apparently distinct from those hitherto noticed or described. The cranium and suite of molar teeth, &c., of the American Mastodon (*M. Ohioticus*) also deserve particular notice.—Another striking object at this side of the room are the casts of a great portion of the skeleton of Megatherium found in the bed of the Rio Salado, near Buenos Ayres. The remaining genera of the thick skinned and edentate mammalia, of the Rhinoceros, the Hippopotamus, &c., are under re-arrangement, but several of them are already placed in the Wall Cases.

In a distinct Case at the N. side of this Room is deposited the fossil *human skeleton* embedded in limestone, brought from Guadaloupe by Admiral the Hon. Sir Alexander Cochrane, and presented to the British Museum by the Lords Commissioners of the Admiralty.

The Wall Cases in Rooms III. and IV. will contain the osseous remains of the Class REPTILIA; the greater part of them is already arranged. Cases 1 to 4 are set apart for the Batrachian, the Chelodonian and Emydosaurian reptiles, now under arrangement. To the first named of these orders belongs the gigantic Salamander, the subject of Scheuchzer's dissertation, *Homo diluvii testis et theoscopos, Tiguri*, 1726. Also the specimens illustrative of the Chelonians will be placed in one of these Wall Cases. Among the specimens of the third of these orders, may be specified the Crocodilian division, containing very interesting objects, such as specimens of the head with other bones of the gavial (or rather

ghárial) of Whitby, (*Teleosaurus Chapmanni*), which, though correctly determined by its discoverer, Capt. W. Chapman, and also by Wooller (Phil. Trans. for 1758), was subsequently mistaken for a species of Ichthyosaurus;—another species of ghárial (considered a distinct genus, bearing the name of *Æolodon*) from the lias at Monheim in Franconia, being the unique specimen described and figured by Soemmerring in the Memoirs of the Academy of Munich, under the name of *Crocodylus priscus*;—a head of *Crocodylus Toliapicus*, mentioned by Cuvier as *Crocodylus de Sheppey*;—the head and other parts of the *Geosaurus* (the *Lacerta gigantea* of Soemmerring) found together with the preceding, and first figured and described by the last mentioned naturalist in the Transactions of the Academy of Munich;—the interesting groups embedded in two slabs of limestone of the well known Swanage Crocodile (a distinct genus) and one of the principal specimens of the Mantellian collection;—the lower jaw and other parts of the cranium, vertebræ, &c., of the huge reptile (*Mososaurus Sancti Petri*) from the St. Peter's Mountain near Maestricht, presented, in 1784, by the celebrated Peter Camper, and figured by Cuvier;—a portion of a new species, from Lyme Regis, of the remarkable genus of flying reptiles, the *Pterodactylus* of Cuvier, described and figured by Buckland in the Transactions of the Geological Society, under the name of *P. macronyx*: together with a coloured cast of the unique *P. longirostris* of Cuvier from Solenhofen, the quarry of which place has also furnished the small lamina of lias on which may be observed the impression (with some of the osseous substance remaining) of the last two articulations of the toe of a flying animal, considered by Spix as related to the Vampire, but which is more probably a large and distinct species of Pterodactyle.

The whole of Case 4 is occupied by the osseous remains of Iguanodon, chiefly from the strata of Tilgate Forest in Sussex; a suite, which, together with the great group of bones from Maidstone embedded in Kentish rag, (in a separate glass Case placed at present under the central window,) has furnished Dr. Mantell with highly valuable materials for the illustration of that extraordinary reptile, scarcely less remarkable in its osteology than the gigantic animal (Wall Case 2) of the same order, discovered by that naturalist, and to which he has given the name of the Wealden Lizard (*Hylaosaurus*), to express the circumstance of its occurring in the strata of that geological formation.

In the Wall Cases 5, 6, 7, of this Room, and in all those of Room IV., are arranged the order ENALIOSAURIA, or Sea Lizards, of the subdivision of which the genera Plesiosaurus and Ichthyosaurus are the principal types. Among the species of the former may be particularized the *Plesiosaurus Hawkinsii*, chiefly from the lias quarries of Street, and thus named by Mr. Owen in honour of the author of the work in which most of the specimens are figured and described which formed his splendid collections, now partly deposited in this Gallery;—the species from Lyme Regis, first described by Mr. Conybeare, and named *P. dolichodeirus*, its neck being nearly equal in length to the body and tail united;—the *P. rugosus* from the lias near Belvoir Castle, presented by H. G. the Duke of Rutland, being a unique nearly complete specimen of this species;—the specimen of a Plesiosaure, of which an account and figure have been given in the Philosophical Transactions for 1719, by Mr. Stukeley, who took it for a crocodile.

In and on the Wall Cases of Room IV. are placed the larger specimens of the various species of Ichthyosaurus, or the fish-lizard, so denominated on account of their having in a recent state clearly presented the external appearance of certain orders of fishes combined with the internal organization belonging to the Saurian reptiles. The most striking specimens are the *I. Platydon* in the central Case, and various bones of its gigantic variety on the top of the same Case and in Case 2, such as the head cut transversely to show the internal structure of the jaws and the carpal bones of one of the extremities, &c., all from the lias of Lyme Regis;—a new small species *I. latifrons*, in which the spiracle on the top of the head, between the eyes, claims particular notice, from Balderton in the county of Nottingham;—the splendid specimens of *P. intermedius*, *P. lonchiodon*, *P. communis*, all from Lyme Regis; the *P. longipinnis* and *P. longirostris* from Whitby, &c.

In the central passage between the Table Cases of these Rooms are placed various objects illustrative of particular mineral substances. One of the most interesting is a Table, presented by H. G. the Duke of Rutland, the slab of which is composed of a stalagmitical calcareous deposition, which was found investing the interior of a square wooden pipe in Blythe Lead Mine, Derbyshire.

The sculptured tortoise near the centre of the Gallery, placed on a round table inlaid with various antique marbles and other mineral substances, is wrought out of nephrite or jade. It was found on the banks of the Jumna, near the city of Allahabad, in Hindostan, brought to England by Lieutenant-General Kyd, and presented to the Museum by Thomas Wilkinson, Esq.

ALPHABETICAL LIST

OF THE

MINERALS IN THE NORTH GALLERY,

WITH REFERENCES TO THE TABLE CASES.

- | | | | |
|----------------------|---------------------|---------------------|----------------------|
| Abrazite, 29. | Alum, 57. | Andalusite, 31. | Arragonite, 42. |
| Acaticone, 35. | Alumina, 19. | Anglesite, 57. | Arsenic, native, 4. |
| Achmite, 34. | — fluoride, 59. | Anhydrite, 56. | — with cobalt, 4. |
| Acid, arsenious, 53. | — mellate, 60. | Anorthite, 30. | — oxide, 53. |
| — boracic, 41. | — phosphate, 54. | Anthophyllite, 33. | — sulphurets, 11. |
| — molybdic, 40. | — silicate, 26. | Anthracite, 4. | Arsenic bloom, 52. |
| — silicic, 20, 24. | — sulphate, 57. | Anthraconite, 46. | Arsenious acid, 53. |
| — sulphuric, 55. | Aluminite, 57. | Antimoniates, 40. | Arseniurets, 4. |
| Actinolite, 33. | Alum-stone, 57. | Antimony, grey, 10. | Asbest, 34. |
| Adularia, 29. | Amalgam, native, 2. | — native, 3. | Asparagus-stone, 53. |
| Æschynite, 39. | Amazon-stone, 29. | — ochre, 40. | Asphalt, 60. |
| Agalmatolite, 32. | Amber, 60. | — oxysulphuret, | Atacamite, 59. |
| Agates, 23. | Amblygonite, 54. | 40. | Avanturino-quartz, |
| Agate-jasper, 24. | Amethyst, 20. | — plumose, 10. | 22. |
| Alabaster, 46, 57. | — oriental, 19. | — red, 40. | — feldspar, 29. |
| Alalite, 34. | Amianth, 34. | — sulphuret, 10. | Augite, 34. |
| Albine, 27. | Ammonium chlo- | — white, 40. | Automolite, 19. |
| Albite, 30. | ride, 59. | Apatite, 53. | Axinite, 38. |
| Allanite, 37. | Amphibole, 33. | Aphrite, 45. | Azurite, 37, 54. |
| Allochroite, 36. | Amphigène, 30. | Apophyllite, 27. | Babingtonite, 34. |
| Allophane, 26. | Analcime, 27. | Arendalite, 35. | Baikalite, 34. |
| Almandine, 36. | Anatase, 39. | Arfvedsonite, 33. | Bardiglio, 56. |

- Baroselenite, 55.
 Baryta, carbonate, 41.
 — sulphate, 55.
 Barytes, 55.
 Barytocalcite, 41.
 Baudisserite, 49.
 Bergbutter, 57.
 Bergmannite, 31.
 Berthierite, 11.
 Beryl, 37.
 Berzelite, 60.
 Beudantite, 15.
 Bildstein, 32.
 Bismuth, 1.
 — carbonate, 50.
 — glance, 9.
 — native, 1.
 — oxide, 17.
 Bismuth blende, 26.
 Bitumen, 62.
 Black-lead, 4.
 Blende, 5.
 Blood-stone, 23.
 Blue-spar, 54.
 Bog-iron ore, 16.
 Bolognese-spar, 55.
 Boracic-acid, 38.
 Boracite, 41.
 Borax, 41.
 Botryogene, 57.
 Botryolite, 41.
 Bournonite, 11.
 Braunite, 13.
 Breunerite, 49.
 Brewsterite, 28.
 Brochantite, 53.
 Bronzite, 34.
 Brookite, 39.
 Brown-coal, 62.
 Brown-spar, 48.
 Brucite, 39.
 Bucholzite, 26.
 Bucklandite, 36.
 Buntkupfer, 7.
 Bustamite, 34.
 Calcite, 54.
 Calamine, 49.
 — electric, 26.
 Calcareous-spar, 43
 — 45.
 Calcedony, 22, 23.
 Calcite, 43—47.
 Calcium, fluoride, 58.
 Caledonite, 57.
 Carnelian, 23.
 Cat's-eye, 22.
 Celestine, 54.
 Cererite, 26.
 Cerine, 37.
 Cerite, 26.
 Cerium, carbonate, 50.
 — fluoride, 59.
 — silicate, 26.
 Ceylonite, 19.
 Chabasite, 27.
 Chalcolite, 54.
 Chalcosiderite, 54.
 Chalk, 48.
 Chiastolite, 48.
 Childrenite, 54.
 Chlorides, 59.
 Chlorite, 32.
 Chloropal, 26.
 Chlorophæite, 26.
 Chondrodite, 39.
 Chrome-garnet, 36.
 Chromium, oxide, 41.
 Chrysoberyl, 19.
 Chrysolite, 25.
 Chrysoprase, 23.
 Cinnabar, 9.
 Cinnamon-stone, 35.
 Clay-iron-stone, 16.
 Cleavelandite, 30.
 Coal, 62.
 Cobalt, arseniate, 52.
 — grey, 4.
 — oxides, 17.
 — sulphate, 58.
 — sulphuret, 6.
 — vitriol, 58.
 — white, 4.
 Cobalt-bloom, 52.
 Cobalt-crust, 52.
 Cobalt-glance, 12.
 Cobalt-vitriol, 58.
 Coccolite, 34.
 Colophonite, 36.
 Columbite, 40.
 Comptonite, 29.
 Conite, 49.
 Copper, arseniates, 52.
 — bismuth, 9.
 — blue, 51.
 — carbonate, 50,
 51.
 — chloride, 59.
 — native, 1.
 — oxides, 17.
 — phosphate, 53.
 — red, 17.
 — seleniuret, 4.
 — silicate, 26.
 — sulphate, 57.
 — sulphurets, 7.
 — variegated, 7.
 — yellow, 7.
 Copper-azure, 50.
 Copper-black, 17.
 Copper-emerald, 26.
 Copper-glance, 7.
 Copper-mica, 52.
 Copper-nickel, 4.
 Copper-pyrites, 7.
 Copper-vitriol, 57.
 Coral-ore, 9.
 Corundite, 19.
 Cotunnite, 60.
 Couzeranite, 29.
 Crichtonite, 39.
 Crocoisite, 41.
 Cross-stone, 37.
 Crucite, 14.
 Cryolite, 58.
 Cube-ore, 53.
 Cube-spar, 56.
 Cubicite, 27.
 Cummingtonite, 35.
 Cymophane, 19.
 Cyprine, 35.
 Dapêche, 60.
 Datolite, 41.
 Delvauxite, 54.
 Diallagite, 34.
 Diamond, 4.
 Diamond-spar, 19.
 Diaspore, 19.
 Dichroite, 36.
 Diopside, 34.
 Dioptase, 26.
 Dipyre, 31.
 Disthène, 26.
 Dolomite, 47.
 Edwardsite, 54.
 Egerane, 35.
 Elaterite, 60.
 Elæolite, 31.
 Electrum, 3.
 Emerald, 37.
 Emery, 19.
 Endellion, 11.
 Epidote, 35.
 Epsomite, 57.
 Essonite, 35.
 Eukairite, 4.
 Euchroite, 54.
 Euclase, 37.
 Eudialyte, 38.
 Fahl-ore, 12.
 Fahlunite, 32.
 Feather-ore, 10.
 Feldspar, 29.
 Fettstein, 31.
 Fibrolite, 19.
 Fiorite, 21.
 Fire-marble, 47.
 Fire-opal, 24.
 Flint, 22.
 Fluorides, 58.
 Fluor-spar, 58.
 Franklinite, 17.
 Frugardite, 35.
 Fulgurite, 21.
 Gadolinite, 37.
 Gahnite, 19.
 Galena, 8.
 Gallitzinite, 57.
 Garnet, 36.
 Gehlenite, 36.
 Gems, oriental, 19.
 Gibbsite, 19.
 Gillingite, 26.
 Gismondine, 29.
 Glance-cobalt, 12.
 Glauberite, 54.
 Glauber-salt, 55.
 Gmelinite, 28.
 Gôëthite, 16.
 Gold, native, 3.
 Grammatite, 33.
 Granatite, 37.
 Graphite, 4.
 Greenockite, 6.
 Grey copper, 12.
 Grossular, 36.
 Guano, 61.
 Gum-lead, 19.
 Gurhofian, 49.
 Gypsum, 56.
 Haarsalz, 57.
 Haidenite, 27.
 Halloysite, 26.
 Harmotome, 29.
 Hartmannite, 10.
 Hatchettine, 60.
 Hausmannite, 13.
 Haüyne, 37.
 Haytorite, 21.
 Heavy-spar, 55.
 Heliotrope, 23.
 Helvine, 37.
 Hematite, red, 14.
 — brown, 16.
 Henkelite, 10.
 Hepatic-ore, 9.
 Hepatite, 55.
 Hessonite, 35.
 Heulandite, 28.
 Highgate-resin, 60.
 Hisingerite, 26.
 Honey-stone, 60.
 Hornblende, 33.
 Horn-quicksilver, 59.
 Horn-silver, 59.
 Hornstone, 22.
 Humboldtite, 41.
 Hyacinth, 26.
 Hyalite, 21.
 Hyalosiderite, 25.
 Hydrargillite, 52.
 Hydrolite, 28.
 Hypersthène, 34.
 Hypochlorite, 55.
 Ice-spar, 30.
 Ichthyophthalmite, 27.
 Idocrase, 35.
 Idrialine-cinnabar, 9.
 Idrialite, 60.
 Ilmenite, 39.
 Ilvite, 34.
 Indianite, 19.
 Iolite, 36.
 Iridium, 3.
 Iron, arseniate, 53.
 — carbonate, 48.
 — chromate, 41.
 — meteoric, 1.
 — native, 1.
 — oxides, 16.
 — phosphate, 54.
 — silicate, 26.
 — sulphate, 57.
 — sulphurets, 16.
 — titanate, 39.
 — tungstate, 40.
 Iron-earth, green, 54.
 Iron-flint, 21.
 Iron-glance, 14.
 Iron-mica, 14.
 Iron-ore, pisiform, 16.
 Iron-pyrites, 6.
 Iron-sand, 15.
 Iron-spar, 48.
 Iron-stone, brown, 16.
 Iron-green, 54.
 — magnetic, 15.
 — micaceous, 14.

- Iron-red, 14.
 — sparry, 50.
 Iron-vitriol, 58.
 Isesine, 39.
 Itacolumite, 21.
 Ittnerite, 31.
 Jade, Chinese, 28.
 Jamesonite, 11.
 Jasper, 24.
 Jasp-opal, 24.
 Jet, 60.
 Johannite, 57.
 Johnstonite, 41.
 Karpoholite, 36.
 Kakoxene, 54.
 Keffekilite, 25.
 Kerstenite, 4.
 Klaprothite, 54.
 Kohlenblende, 4.
 Konigine, 58.
 Koupholite, 28.
 Krokalite, 27.
 Krokydalite, 34.
 Kupferschaum, 42.
 Kyanite, 26.
 Labrador-spar, 29.
 Lanarkite, 57.
 Lapis-lazuli, 37.
 Lasionite, 54.
 Latrobite, 31.
 Laumontite, 28.
 Lazulite, 54.
 Lead, aluminate, 19.
 — arseniate, 53.
 — brown, 54.
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 — phosphate, 53.
 — red, 41.
 — sulphate, 57.
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 bonate, 57.
 — sulphuret, 8.
 — tungstate, 40.
 — vanadate, 41.
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C. KONIG.

June 27, 1842.

GALLERY OF ANTIQUITIES.



GALLERY OF ANTIQUITIES*.

FIRST ROOM.

TERRACOTTAS.

OVER the door which fronts the entrance into this Room, is a bust of Charles Townley, Esq., to whose profound knowledge of ancient Sculpture, and zeal in the acquisition of the finest specimens of it, the nation is indebted for the formation of a considerable part of the splendid collection of Terracottas and Marbles contained in this Gallery. The bust was presented by his uncle, John Towneley, Esq. It is executed in marble by Nollekens.

No. 1. A female statue, probably one of the Muses. Pl. III. This No., with 38, 40, 76 and 79, were found, about the year 1765, in a dry well near the Porta Latina at Rome.

No. 2. An Amphora, found in the Baths of Titus, in 1772.

No. 3. A terminal head of the bearded Bacchus. Pl. XXXVII. f. 75; found with No. 75 at the Porta Latina.

No. 4. A bas-relief, representing a combat between two Amazons and two Griffins. Pl. IV. f. 4.

No. 5. Ditto, representing the head of a Triton, on each side of which is a Cupid riding on a dolphin. Pl. IV. f. 5.

No. 6. Ditto, representing a group of Silenus and Cupid, before whom is a female Bacchante dancing, and playing on the tambourin. Pl. V.

No. 7. Ditto, representing an engagement between one of the Arimaspi and a Griffin; on the left of the combatants is the bust of an athletic figure, armed with a battle-axe. Pl. VI. f. 7.

No. 8. Ditto, intended by the artist as a companion to No. 7, and to be joined to it in the manner in which it is here seen. The subject in both pieces is precisely the same: the bust, however, in this piece is placed on the right of the combatants, and is armed with a sword and shield. Pl. VI. f. 8.

No. 9. Repetition of No. 6. Pl. V.

No. 10. A bas-relief, representing a head of Medusa, on each side of which is an eagle in the act of seizing with its talons, one of the snakes entwined in the locks of her hair. Pl. VII. f. 10.

No. 11. Ditto, representing a couple of chimæras lapping water out of vessels held to them by two youths who are attired in Phrygian dresses, and are each kneeling on one knee. Pl. VII. f. 11.

No. 12. Ditto, representing a female, overwhelmed with affliction. She is seated, and is resting her head upon her right arm, while her attendants, from the concern visible in their countenances, appear to participate in her sorrow. This bas-relief probably represents Penelope dejected at the departure of Ulysses. Pl. VIII. f. 12.

No. 13. Ditto, imperfect, representing a fragment of Medusa's head, on one side of which is a figure of Minerva. Pl. VIII. f. 13.

No. 14. Ditto, representing the bearded Bacchus, and a female at-

* All the articles in the following catalogue of antiquities, unless where it is otherwise specified, belonged to the collection of the late Charles Townley, Esq. More ample descriptions, with Plates, of the antiquities contained in the British Museum, are in the course of publication; and references to the several parts already published are affixed to those articles which have been therein engraved.

tendant on Bacchus, each of them holding a thyrsus. *From the collection of Sir Hans Sloane.* Pl. IX. f. 14.

No. 15. A bas-relief, imperfect, representing a head of Minerva, and a head of Jupiter. Pl. IX. f. 15.

No. 16. Ditto, representing Minerva assisting the Argonauts in the construction of the ship Argo. Pl. X.

No. 17. Ditto, imperfect, representing Venus on the ocean, riding upon a sea-horse. Pl. XI. f. 17.

No. 18. Ditto, representing Victory pouring out a libation to Apollo Musagetes. *From the collection of Sir Hans Sloane.* Pl. XI. f. 18.

No. 19. Ditto, representing a candelabrum lighted for a sacrifice. On each side stands a priestess, who with one hand supports the sacred fillets which decorate the candelabrum, and with the other raises a small portion of her robe, like the figure of Hope on coins of the Roman Emperors. Pl. XII. f. 19.

No. 20. Ditto, representing Machaon, after he has been wounded. He is supposed to be sitting in the tent of Nestor, who is administering a potion to him, as described in the XIth book of the Iliad. The females in attendance are slaves. Pl. XII. f. 20.

No. 21. Ditto, representing Bacchus and a Faun; the former holds a thyrsus in his left hand, the latter carries a torch in his right hand, and an amphora on his left shoulder. Pl. XIII.

No. 22. Ditto, representing two Fauns kneeling, one of them playing upon the tambourin, the other accompanying him with small musical instruments called crotala. Between them is Ampelus, the lower part of whose figure terminates in branches of the vine. Pl. XIV. f. 22.

No. 23. Ditto, representing two of the Seasons, Spring and Summer. Pl. XIV. f. 23.

No. 24. Ditto, representing Victory sacrificing a bull before a lighted candelabrum, which is used as an altar. Pl. XV. f. 24.

No. 25. Ditto, imperfect, representing Perseus cutting off the head of Medusa. Pl. XV. f. 25.

No. 26. Ditto, representing Victory sacrificing a bull before a small altar, which is placed upon a tripod table. Pl. XVI. f. 26.

No. 27. Ditto, imperfect, representing a female Bacchante offering a basket of figs to the goddess Pudicitia. *From the collection of Sir Hans Sloane.* Pl. XVI. f. 27.

No. 28. Ditto, representing two Fauns gathering grapes into baskets. Pl. XVII. f. 28.

No. 29. Repetition of No. 21. Pl. XIII.

No. 30. A bas-relief, representing Bacchus leaning on the shoulders of a Faun. At his feet is a panther holding up his mouth to receive the wine which is poured from the vase held in the right hand of Bacchus. Before this group is a female attendant on Bacchus, holding a thyrsus in her hand. Pl. XVII. f. 30.

No. 31. Ditto, representing two Fauns leaning over a large open vessel of wine, as if observing the reflection of their faces on the surface of the liquor. Pl. XVIII. f. 31.

No. 32. Ditto, imperfect, representing a trophy, before which stands a captive attended by a guard, and secured by a chain fastened round his right wrist. Pl. XVIII. f. 32.

No. 33. A bas-relief, representing two Fauns gathering grapes into baskets. *From the collection of Sir Hans Sloane.* Pl. XXXIV. f. 69.

No. 34. Ditto, representing Paris carrying off Helen, in a car drawn by four horses. Pl. XIX. f. 34.

No. 35. Ditto, representing Egyptian hieroglyphics; ascribed to the time of Hadrian. Pl. XIX. f. 35.

No. 36. Ditto, representing two persons navigating the Nile in a boat. In the foreground are a hippopotamus, two crocodiles, some birds, and several plants of the *Nymphæa lotus*. In the distance are buildings, on the roof of which three Ibises are resting. The whole of this scenery is viewed through two arches supported by columns. Pl. XX. f. 36.

No. 37. Ditto, imperfect, representing a vase with two handles, on one side of which is a panther leaping up, a thyrsus, and the letter A. Pl. XX. f. 37.

No. 38. A statue of the muse Urania; both the hands are wanting; but from the position of the arms, it is probable that the figure held a radius in the right hand, and a celestial globe in the left hand. It is three feet ten inches high, and is one of the largest statues that have been found of terracotta. Pl. XXI.

No. 39. An Amphora. *From the collection of Sir Hans Sloane.*

No. 40. A statue of a muse resting her left arm upon a pile of writing tablets which are placed upon a square column. The right arm is raised towards the neck. The figure, in its present state, is three feet four inches high: the head is lost. Pl. XXII.

No. 41. An Amphora. *From the collection of Sir Hans Sloane.*

No. 42. A bas-relief, representing a short naked human figure, with a beard: he holds in each hand the stem of a plant. On each side of this figure is seated a quadruped, whose head is that of an elderly man, and whose tail terminates in a flower. Pl. XXIII. f. 42.

No. 43. Ditto, representing Cupids supporting festoons of fruit upon their shoulders. Pl. XXIII. f. 43.

No. 44. Ditto, representing a Faun and a Bacchante dancing, and holding between them the infant Bacchus in a basket used for winnowing corn. Pl. XXIV. f. 44.

No. 45. Ditto, representing the head of Pan, on each side of which is the head of a Satyr; one of the Satyrs is crowned with branches of the pine, and the other with branches of ivy. Pl. XXIV. f. 45.

No. 46. Repetition of No. 45.

No. 47. A bas-relief, representing the Indian Bacchus received as a guest by Icarus. Pl. XXV.

No. 48. Ditto, representing two Fauns riding on panthers. The hinder part of the panthers terminate in vine leaves. Between the panthers is a vase with two handles. Pl. XXVI. f. 48.

No. 49. Ditto, representing a bull and a lion running in contrary directions. The hind legs of both animals are enveloped in foliage. Pl. XXVI. f. 49.

No. 50. Ditto, representing a lighted candelabrum, which is composed entirely of a plant. The flames issue from the flower, which grows upon a long stem. On each side stands a priestess, with one hand holding up a small portion of her robe (see Nos. 19 and 54), and

with the other hand holding one of the branches of the plant. Pl. xxvii. f. 50.

No. 51. A bas-relief, representing two of the Seasons, Autumn and Winter. Pl. xxvii. f. 51.

No. 52. Ditto, imperfect, representing the goddess Salus, feeding a serpent out of a patera. The serpent is twined round the trunk of a tree, from a branch of which are suspended two cast off skins of the serpent. Pl. xxviii. f. 52.

No. 53. Ditto, representing a warrior seated consulting the oracle of Apollo. Pl. xxviii. f. 53.

No. 54. Ditto, representing a lighted candelabrum, on each side of which stands a priestess carrying a patera on her head, and holding up a small portion of her robe with one hand. (See Nos. 19 and 50.) Pl. xxix.

No. 55. Ditto, representing Theseus slaying a Centaur. Pl. xxx. f. 55.

No. 56. Repetition of No. 18.

No. 57. Repetition of No. 23.

No. 58. Repetition of No. 50.

No. 59. A bas-relief, representing two Fauns treading out the juice of grapes in a wine-press. On one side is a Faun playing upon the double pipe; and on the other side another Faun, somewhat aged in his appearance, loaded with a heavy basket of grapes. Pl. xxx. f. 59.

No. 60. Ditto, representing a chariot-race. The name of the artist, ANNIAE ARESCVSA, appears upon this terracotta. Pl. xxxi. f. 60.

No. 61. Repetition of No. 6.

No. 62. A bas-relief, representing a mask of Bacchus, between those of a young and an old Faun. Pl. xxxi. f. 62.

No. 63. Repetition of No. 62.

No. 64. Repetition of No. 6.

No. 65. A bas-relief, representing two captives seated in a car drawn by two horses. The captives have chains fastened round their necks and round their ancles, and the ends of the chains are held by guards walking on each side of the car. Pl. xxxii. f. 65.

No. 66. Ditto representing a head of Jupiter Ammon, which rests on a flower. The ends of the fillets with which the head of Jupiter is crowned are held on each side by a Faun, who is furnished with wings, and whose figure terminates below in foliage, which curls in such a manner as to give the figure the appearance of a Triton. Pl. xxxii. f. 66.

No. 67. Ditto, representing two Fauns gathering grapes into baskets. Pl. xxxiii. f. 67.

No. 68. Ditto, representing a figure of Victory standing upon a plant, and supporting the branches of it with her hands. Pl. xxxiii. f. 68.

No. 69. Repetition of No. 33.

No. 70. A bas-relief, representing Victory sacrificing a bull before a tripod altar. Pl. xxxiv. f. 70.

No. 71. Ditto, imperfect, representing Theseus riding at full speed, and cutting off the head of an Amazon, whom he has caught by the hair of her head. Pl. xxxv. f. 71.

No. 72. A bas-relief, representing Venus carried through the air upon a swan. Pl. XXXV. f. 72.

No. 73. Ditto, representing Cupid pressing Psyche, in the form of a butterfly, to his breast. Pl. XXXVI. f. 73.

No. 74. Ditto, presenting Cupid flying with a palm-branch in one hand and a wreath in the other. Pl. XXXVI. f. 74.

No. 75. A terminal head of the bearded Bacchus. Pl. XXXVII. f. 75.

No. 76. A female statue, probably of Thalia, the pastoral Muse. Pl. XXXVIII.

No. 77. An Amphora. *From the collection of Sir Hans Sloane.*

No. 78. A female statue, the character unknown. The head and lower arms are modern. Pl. XXXIX.

No. 79. A statue of Juno, crowned with an indented diadem. Part of the arms is wanting. Pl. XL.

Nos. 80—83. Amphoræ of various forms.

SECOND ROOM.

GREEK AND ROMAN SCULPTURES.

No. 1. A colossal head of Minerva. Pt. I. Pl. i.

No. 2. A funeral urn, ornamented with equestrian and pedestrian combatants: formerly in the collection of Victor Amadei, at Rome; whence it was purchased in 1768. Pt. I. Pl. ii.

No. 3. One of the feet or supports of an ancient tripod table, found in 1769, in the Pantanella, within the grounds of Hadrian's villa, near Tivoli. Pt. I. Pl. iii.

No. 4. A statue of a canephora, anciently made use of as a column. It was one of the Caryatides which supported the portico of a small temple dedicated to Bacchus. It was found during the pontificate of Sixtus V., among some ancient ruins in the Villa Strozzi, situated upon the Appian Road. Pt. I. Pl. iv.

No. 5. A candelabrum. The upper part was found in the ruins of the villa of Antoninus Pius. Pt. I. Pl. v.

No. 6. The triangular base of a candelabrum, on the sides of which three Genii hold each a part of the armour of Mars; namely, his helmet, his shield, and his sword. The work is of the Roman period. Pt. I. Pl. vi.

No. 7. A vase three feet high, with upright massive handles; it is of an oval form, and is ornamented all round with Bacchanalian figures. It was found at Monte Cagnuolo, the site of the villa of Antoninus Pius at the ancient Lanuvium. Pt. I. Pl. vii.

No. 8. A statue of Venus or Dione, naked to the waist, and covered with drapery thence downwards. It was found in the ruins of the Maritime Baths of Claudius, at Ostia, in the year 1776. Pt. I. Pl. viii.

No. 9. A vase two feet eight inches high, of an oval form, with two upright double handles, which spring from the necks of swans. The body of the vase in front is enriched with a group of Bacchanalians. Pt. I. Pl. ix.

No. 10. A fountain ornamented with ivy and olive branches. The water was conveyed through a perforation in the back part of this monu-

ment to a serpent's head, in which a leaden pipe was introduced, part of which still remains in the mouth. Found in 1776, near the road between Tivoli and Præneste. Pt. 1. Pl. x.

No. 11. A colossal head of Hercules, dug up at the foot of Mount Vesuvius, where it had been buried by the lava of that volcano. *From the collection of Sir William Hamilton.* Pt. 1. Pl. xi.

No. 12. A colossal head of Hercules, in a very ancient style of Greek sculpture. Found by Mr. Gavin Hamilton in 1769, at the Pantanella in Hadrian's Villa. Pt. 1. Pl. xii.

No. 13. A fragment of one of the three supports of a tripod basin, composed of the head and neck of a lion. On the forehead are the horns of a goat. Found in 1769, in the Pantanella. Pt. 1. Pl. xiii.

No. 14. The capital or upper division of a votive cippus, representing two birds, in bas-relief, drinking. Pt. 1. Pl. xiv.

No. 15. The key-stone of a triumphal arch, ornamented with a figure of Victory elaborately hollowed out between the two volutes. This fragment is inserted in a modern pedestal. Found in the neighbourhood of Frascati, twelve miles from Rome. Pt. 1. Pl. xv.

No. 16. A colossal head of Minerva, a specimen of early Greek work. It is two feet one inch in height, and was found in the neighbourhood of Rome, by the late Mr. Gavin Hamilton, who sent it to England in 1787. Pt. 1. Pl. xvi.

THIRD ROOM.

GREEK AND ROMAN SCULPTURES.

No. 1. A bas-relief, representing an old Faun struggling with a nymph. Pt. 2. Pl. i.

No. 2. Ditto, representing a candelabrum, formerly in the collection of the Mattei family. Pt. 2. Pl. ii.

No. 3. Ditto, representing a funeral column, near which is a statue of the god of Lampsacus. Pt. 2. Pl. iii.

No. 4. Ditto, representing Bacchus received as a guest by Icarus. Pt. 2. Pl. iv.

No. 5. Ditto, representing warriors consulting the oracle of Apollo. It was presented to Mr. Townley by the Duke of Bedford in 1805. Pt. 2. Pl. v.

No. 6. Ditto, in the flat early style of Grecian sculpture. It represents Castor managing a horse. Found in the ruins of Hadrian's Villa, about the year 1769. Pt. 2. Pl. vi.

No. 7. Ditto, representing Hercules securing the Mænaliam stag, which, at the command of Eurystheus, he had pursued a whole year in the forest of Arcadia. It is in a very early style. Pt. 2. Pl. vii.

No. 8. *Blank.*

No. 9. A bas-relief, divided into three compartments. In the upper division, the infant Bacchus is represented riding on a goat; in the middle, a Triton, in attendance on Venus, is seizing a marine bull by the horns; and in the lower division is a company of hunters returning home with their spoil. It belonged to Pope Sixtus V., and was formerly in the Villa Montalto. Pt. 2. Pl. ix.

No. 10. A bas-relief, representing a festoon of vine branches suspend-

ed from the skulls of bulls. In the centre, above the festoon, is a mask of a Faun. It has served as a decoration in the inside of a circular building, probably dedicated to Bacchus. Pt. 2. Pl. x.

No. 11. Ditto, representing the Dioscuri on horseback. *From the collection of Sir William Hamilton.* Pt. 2. Pl. xi.

No. 12. Ditto, representing a Bacchanalian group, consisting of three figures; the first a Bacchante playing on the tambourin; the second, a Faun playing on the double pipe; and the third, an intoxicated Faun holding a thyrsus. It was found by Mr. Gavin Hamilton, in 1776, at Civita Vecchia, about five miles from Rome. Pt. 2. Pl. xii.

No. 13. Ditto, representing Victory offering a libation to Apollo Musagetes. *From the collection of Sir William Hamilton.* Pt. 2. Pl. xiii.

No. 14. Ditto, which has served as an ornament on the outside of a circular building. It consists of a couple of branches issuing from one stem, and curling in opposite directions. Pt. 2. Pl. xiv.

No. 15. Ditto, representing the Centaur Nessus carrying Deianira in his arms. It was formerly in the Verospi Palace at Rome. Pt. 2. Pl. xv.

No. 16. Ditto, representing a cow suckling her calf, and drinking out of a circular vessel. Pt. 2. Pl. xvi.

No. 17. Two terminal heads, joined back to back; one of the bearded Bacchus, the other of Libera. Found by Mr. Gavin Hamilton in an excavation in the neighbourhood of Rome. Pt. 2. Pl. xvii.

No. 18. A statue of the goddess Fortune. She bears a modius upon her head. Her right hand holds the rudder of a vessel, the lower part of which rests upon a globe, whilst the left arm supports a cornucopiæ filled with fruits. This statue was found near the Via Latina, a short distance from Rome. Pt. 2. Pl. xviii.

No. 19. A terminal head of the bearded Bacchus, of very early Greek work. This head was found in 1790, in that part of Hadrian's Villa Tiburtina supposed to have been the Picture Gallery. Pt. 2. Pl. xix.

No. 20. A head of Hippocrates: found near Albano, amongst what are supposed to be the remains of the villa of Marcus Varro. Pt. 2. Pl. xx.

No. 21. A terminal head of Mercury. *Purchased in 1812, at the sale of Antiquities belonging to William Chinnery, Esq.* Pt. 2. Pl. xxi.

No. 22. A statue of Venus. It was found by Mr. Gavin Hamilton, in an ancient bath at Ostia, in 1775. Pt. 2. Pl. xxii.

No. 23. A bas-relief, representing the apotheosis, or deification, of Homer. The Father of Poetry is seated on a throne at the foot of Mount Parnassus, the residence of the Muses. Before the poet is a group of figures offering up sacrifices to him. Above are Apollo and the Nine Muses; and on the summit of the mountain is Jupiter, who appears to be giving his sanction to the divine honours which are paid to Homer. This highly interesting bas-relief was found about the middle of the 17th century, at Frattochi, the ancient Bovillæ, on the Appian road, ten miles from Rome. It was for many years in the Colonna Palace, at Rome, and was purchased for the British Museum in the year 1819, at the expense of £1000.

Nos. 21*. 22*. Two feet covered with sandals. They have belonged to the same statue, and are in beautiful preservation.

No. 23*. A bas-relief, representing a comic and a tragic mask.

No. 24*. Ditto, representing four Bacchic masks. *Purchased in 1818.*

No. 25*. A tragic mask.

No. 24. A statue of a Faun : formerly preserved in the Macaroni Palace at Rome. Pt. 2. Pl. xxiv.

No. 25. A terminal head of Homer, represented in an advanced age, with a sublime and dignified character : it was found among some ruins at Baiæ, in 1780. Pt. 2. Pl. xxv.

No. 26. A bust of Sophocles : found about the year 1775, near Gensano, seventeen miles from Rome. Pt. 2. Pl. xxvi.

No. 27. A terminal head of the bearded Bacchus : formerly in the collection of Cardinal Alexander Albani, at Rome. It was brought to England by Mr. Lyde Browne. Pt. 2. Pl. xxvii.

No. 28. A statue of a nymph of Diana resting herself after the fatigues of the chase : found in 1766, near the Salarian gate of Rome, in the Villa Verospi, supposed to have been the site of the gardens of Sallust. Pt. 2. Pl. xxviii.

No. 29. An entire terminus of the bearded Bacchus, six feet high : found in 1771, at Baiæ, in digging a trench for the removal of an old vineyard. Pt. 2. Pl. xxix.

No. 30. A terminal head of the bearded Bacchus : found with the preceding bust at Baiæ, in 1771. Pt. 2. Pl. xxx.

No. 31. A statue of a youth holding with both hands a part of an arm which he is biting. This statue belonged to a group, originally composed of two boys who had quarrelled at the game of Tali, as appears by one of those bones called *tali* remaining in the hand of the figure which is lost. It was found in the baths of Titus at Rome, during the pontificate of Urban VIII. Mr. Townley obtained it from the Barberini palace, in 1768. Pt. 2. Pl. xxxi.

No. 32. A terminal head of Pericles, helmeted, and inscribed with his name. It was found in 1781, about a mile from Tivoli, in the Pianella del Cassio. Pt. 2. Pl. xxxii.

No. 33. A statue of a Faun ; the trunk of the tree which supports the figure is inscribed with the name of the artist. This statue, with its repetition, No. 43, was found by Mr. Gavin Hamilton in the year 1775, near Civita Lavinia, (the ancient Lanuvium,) in the ruins of the villa of Antoninus Pius. Pt. 2. Pl. xxxiii.

No. 34. A terminal head of Epicurus. It was found at Rome in the Villa Casali, near the Church of Santa Maria Maggiore, in 1775. Pt. 2. Pl. xxxiv.

No. 35. A terminal statue of Pan playing upon a pipe : found by Mr. Gavin Hamilton in the ruins of the villa of Antoninus Pius. Pt. 2. Pl. xxxv.

No. 36. A Greek inscription upon the convex side of a circular shield, containing the names of the Ephebi of Athens under Alcámenes, when he held the office of Cosmetes. This marble was procured at Athens, about the year 1748, by Dr. Anthony Askew, who was informed by the people of the place that it had been removed from the Parthenon. Pt. 2. Pl. xxxvi.

No. 37. A terminal statue, supposed to be that of Venus Architis : it was found in 1775, about six miles from Tivoli, near the Præneste road. Pt. 2. Pl. XXXVII.

No. 38. A circular votive patera ; having on one side, within a wreath of ivy, an eagle standing upon a slaughtered hare ; on the other side, Cupid sacrificing to the god of Lampsacus. Pt. 2. Pl. XXXVIII.

No. 39. An unknown bronze head, supposed to be that of Pindar ; formerly called that of Homer. It was brought to England at the beginning of the seventeenth century, for the collection of Thomas Earl of Arundel. *Presented, in 1760, by the Earl of Exeter.* Pt. 2. Pl. XXXIX.

No. 40. A circular votive patera, with a head of Pan in very high relief, on one side ; and on the other, in low relief, a profile head of Silenus, in front of a blazing altar, and a branch of ivy between them. Pt. 2. Pl. XL.

No. 40*. A torso of Hercules : a fragment.

No. 41. A Greek sepulchral monument. The bas-relief in front represents a trophy, on one side of which stands a warrior, and on the other a female figure feeding a serpent that is twined round the trunk of a tree on which the trophy is erected. On the right of these figures is the fore part of a horse. An inscription on the top of this monument contains a list of names, probably of those who fell in some engagement. Brought to England by Mr. Topham, in 1725, and *presented to the British Museum, in 1780, by the Right Hon. Sir Joseph Banks, and the Hon. A. C. Fraser.* P. 2. Pl. XLI.

No. 42. A terminal head of Periander : formerly in the Villa Montalto. Pt. 2. Pl. XLII.

No. 43. A repetition of No. 33. Pt. 2. Pl. XLIII.

No. 44. An unknown terminal head, probably of a Greek poet. It was found with the head of Hippocrates, No. 20, near Albano, in 1770. Pt. 2. Pl. XLIV.

No. 45. A statue of Actæon attacked by his dogs. It was found by Mr. Gavin Hamilton, in 1774, in the ruins of the villa of Antoninus Pius, near Civita Lavinia. Pt. 2. Pl. XLV.

No. 46. A terminal head of the young Hercules ; it is crowned with the leaves of the poplar. This head was found in the year 1777, near Gensano, in the grounds belonging to the Cesarini family. Pt. 2. Pl. XLVI.

FOURTH ROOM.

GREEK AND ROMAN SCULPTURES.

No. 1. A bust of Trajan, with the breast naked. It was found in an excavation made in the Campagna di Roma, by Mr. Gavin Hamilton, in 1776. Pt. 3. Pl. I.

No. 2. A statue of Apollo, of very early Greek work. *Purchased, in 1818, at the sale of the Comte de Choiseul-Gouffier's Antiquities.*

No. 3. A head of Apollo, of very early Greek work. It was brought from Rome by the late Earl Cawdor. Pt. 3. Pl. IV.

No. 4. A head, supposed to be that of Arminius. Brought to England by Mr. Lyde Browne. Pt. 3. Pl. VI.

No. 5. A statue of Thalia, found by Mr. Gavin Hamilton, in the year 1776, at Ostia, in the maritime baths of the Emperor Claudius. Pt. 3. Pl. V.

No. 6. A colossal head of Marcus Aurelius, represented in the character of one of the Fratres Arvales. It was formerly in the Mattei Collection. Pt. 3. Pl. ix.

No. 7. A colossal bust of Lucius Verus, covered with the imperial paludamentum. Pt. 3. Pl. x.

No. 8. A group of Bacchus and Ampelus. This beautiful and interesting group was found in the year 1772, near La Storta, about eight miles from Rome, in the road leading to Florence. Pt. 3. Pl. xi.

No. 9. A head of the young Hercules. Formerly in the Barberini palace. Pt. 3. Pl. xii.

No. 10. A head, supposed to be that of Dione. Pt. 3. Pl. xiii.

No. 11. A statue of Diana: found in the year 1772, near La Storta, at the same spot where the group of Bacchus and Ampelus was discovered. Pt. 3. Pl. xiv.

No. 12. A bust of Hadrian, with the breast naked. Formerly in the Villa Montalto. Pt. 3. Pl. xv.

FIFTH ROOM.

The contents of this Room have been removed to the south recess of the Ante-room of the Phigalian Saloon.

IN A TEMPORARY BUILDING, OPPOSITE THE FIFTH ROOM, is placed the large and valuable collection of casts, chiefly architectural, which belonged to the late Sir Thomas Lawrence. They were bequeathed by him, on payment of a sum much inferior to their real value, to the Royal Academy, by whom they were presented to the British Museum.

On the left hand, next the floor, are five plaster casts of the very remarkable sculptured Metopes discovered at Selinus in Sicily by Mr. Harris and Mr. Angell, in the year 1823. *Presented to the Museum by Samuel Angell, Esq.*

The fragments of mosaic pavement in this Room were found at Withington in Gloucestershire. *They were presented, in 1811, by Henry Brooke, Esq.*

Three paintings; the Cromlech at Plas Newydd, Anglesea; Stonehenge; the Tolmen at Constantine, Cornwall. *Presented by Richard Tongue, Esq., 1837.*

Models of the Trevethy Stone near St. Cleer; the Chunquoit in Cornwall; Lanyon quoit near Penzance; Double Cromlech at Plas Newydd, Anglesea; Cromlech at Duffrin. *Presented by Richard Tongue, Esq., 1828—32.*

SIXTH ROOM.

GREEK AND ROMAN SCULPTURES.

No. 1. A medallion, representing in profile the bust of an unknown Greek philosopher. It was purchased in a palace in Florence in 1771.

No. 2. Part of the front of a sarcophagus, representing Achilles among the daughters of Lycomedes.

No. 3. A bas-relief, cut from the end of a sarcophagus; it represents two Fauns punishing a Satyr.

No. 4. Part of the front of a large sarcophagus, representing a marriage.

No. 5. The front of a sarcophagus, representing the Nine Muses with their respective attributes. Mr. Townley purchased this bas-relief at the Villa Montalto.

No. 6. A bas-relief, cut from the end of the same sarcophagus as No. 3. It represents two Cupids and a Faun carrying an intoxicated Satyr.

No. 7. Part of a sarcophagus, representing a carpentum, or funeral car, drawn by four horses. This bas-relief formed part of a sarcophagus, and had been buried for many years in the yard of Minelli, the sculptor, in the Campo Vaccino at Rome.

No. 8. A medallion, representing in profile the bust of an unknown Greek Philosopher. It is similar to No. 1, but of a later time and inferior sculpture.

No. 9. The front of a sarcophagus, representing captive Amazons with their shields and battle-axes. This marble was purchased from the collection of Cardinal Passionei, at the Camaldoli, near Frascati.

No. 10. A fragment of a sarcophagus, representing Bacchus with a thyrsus in his left hand, and with his right arm thrown over the shoulders of a Faun.

No. 11. A fragment of a magnificent sarcophagus, representing an elderly man, with a manuscript roll in his hand, which he is reading. Before him stands a Muse holding a mask. It was found at no great distance from the Mausoleum of Augustus, in the part of Rome formerly occupied by the Gardens of Pompey, not far from the Tiber.

No. 12. The front of a sarcophagus, representing a Bacchanalian procession. It was formerly in the Villa Montalto.

No. 13. Heads of Paris and Helen, in alto-relievo.

No. 14. A bas-relief, the front of a sarcophagus, representing Genii supporting various pieces of armour. On a shield, in the centre, is an inscription to Sallustius Iasius. It was found at Tusculum, and was formerly in Cardinal Passionei's hermitage at the Camaldoli, near Frascati.

No. 15. A head of Jupiter. It was purchased by Mr. Townley, at the Duke of St. Alban's sale.

No. 16. A terminal statue of a youth represented with the attributes of Mercury: found near Frascati in 1770.

No. 17. A votive altar, sacred to Apollo.

No. 18. A head of Apollo Musagetes, resembling, in the disposition of the hair, and in the character of the face, the head of a Muse. It was brought from Rome by Mr. Lyde Browne.

No. 19. An altar of Roman work, ornamented with Egyptian figures.

Upon it, a votive statue of Diana Triformis, with a dedicatory inscription round the plinth: formerly in the Giustiniani Palace at Rome.

No. 20. A torso of a small statue of Venus.

No. 21. A swan, in red marble: found in a vineyard adjoining the Villa Pinciani.

No. 22. A small statue of Cupid bending his bow. It was found in 1775, enclosed within a large amphora filled with earth, at Castello di Guido, about twelve miles from Rome, on the road to Civita Vecchia.

No. 23. A funeral monument of Xanthippus, who is represented sitting in a chair, and holding a human foot in his right hand. This

marble was brought from Athens by Dr. Anthony Askew, at whose sale it was purchased in 1775, by Mr. Townley.

No. 24. An altar, on which various Egyptian figures are represented. It is of Roman work. This altar, as well as the one above, (No. 19,) are engraved in the *Museum Odescalchum*, fol. Rom. 1752.

Upon it, a statue of a Satyr.

No. 25. A head of an Amazon, in the early style of Greek sculpture. It was brought from Rome by Mr. Lyde Browne.

No. 26. A figure of Victory sacrificing a bull. This, with the similar group, (No. 31,) was found in 1773, by Mr. Gavin Hamilton, in the ruins of the villa of Antoninus Pius, near the ancient Lanuvium.

No. 27. A bust of Hadrian with the imperial paludamentum. It was found in the grounds of the Cavaliero Lolli, which joined to those of the Conte Fede, and occupied a part of that Emperor's villa near Tivoli. Mr. Townley purchased it in 1768.

No. 28. A bas-relief, representing a female Bacchante clothed in thin floating drapery, through which the beautiful forms of her body are perfectly apparent. With one hand, which is held somewhat above her head, she holds a knife, and at the same time secures a portion of her robe which is blown behind her; with the other hand, which is held downwards, she carries the hind quarters of a kid. This piece of sculpture was originally one of the ornamental figures on the triangular base of a candelabrum.

Upon it a head of a child.

No. 29. A bust of Severus with the imperial paludamentum. It was found in 1776, on the Palatine Hill, in the part of the Palace of the Cæsars afterwards occupied by the Villa Magnani.

No. 30. A sarcophagus, in the centre of which is the portrait of an elderly man, placed in the inside of a shield, which is supported by two Genii. Formerly in the Burioni Villa, near the Salarian Gate of Rome.

Upon it, three tiles, in terracotta, brought from Athens. The fronts are ornamented with a border of the honeysuckle pattern, and in the centre of each is a head of a lion, for carrying off the water. *Purchased in 1815.*

Underneath, a colossal foot of Apollo. *Presented, in 1784, by Sir William Hamilton.*

No. 31. A figure of Victory sacrificing a bull. (See No. 26.)

No. 32. A head of Faustina, the wife of Marcus Aurelius. It was purchased in a private house at Pozzuolo, in 1777.

No. 33. A sepulchral cippus, with an inscription to Viria Primitiva.

Upon it, a triangular base of a small candelabrum.

No. 34. An Eagle.

No. 35. Bust of the Empress Faustina the younger. *Presented by P. Du Cane, Esq., 1838.*

No. 36. A statue of Diana Lucifera, of which the head and arms are lost. It was found at Woodchester, in the county of Gloucester. *Presented, in 1811, by Samuel Lysons, Esq.*

No. 37. A Greek sepulchral monument, with a bas-relief, and an inscription to Isias, who was a native of Laodicea, and daughter of Metrodorus. Brought from Smyrna. *Presented, in 1772, by Matthew Duane, Esq., and Thomas Tyrwhitt, Esq.*

No. 38. A triangular base of a candelabrum, the sides of which are ornamented with the attributes of Apollo; namely, a griffin, a raven, and a tripod. It was purchased out of a palace in the Strada de' Condotti at Rome.

No. 39. A head of Plautilla, the wife of the Emperor Caracalla.

No. 40. A statue of Libera, holding a thyrsus over her right shoulder, and a bunch of grapes in her left hand; at her feet is a panther. It was found by Mr. Gavin Hamilton at Roma Vecchia, a few miles from Rome, on the road to Frascati.

No. 41. A head of Atys. It was found at Rome, in the Villa Palombara.

No. 42. A head of an unknown female, the hair elegantly bound with broad fillets. It seems to be the fragment of a statue, and was found about the year 1784, in an excavation made by the then Duke of St. Alban's and Mr. Brand, in grounds belonging to the Cesarini family, near Gensano.

No. 43. A statue of Ceres, crowned in the manner of Isis: formerly in the Macaroni palace at Rome.

No. 44. A head of Nero. It was brought from Athens by Dr. Askew, in 1740.

No. 45. A sepulchral cippus, without an inscription. On the front, beneath a festoon, which is composed of fruits and foliage, and is suspended from the skulls of bulls, are two birds perched on the edge of a vase, out of which they are drinking.

Upon it, a votive statue of a fisherman, who is carrying a round leathern bucket, suspended from his left arm. The head is covered with a mariner's bonnet, and a dolphin serves as a support to the figure.

No. 46. A small scenic figure, sitting on a square plinth. The face is covered with a comic mask. It was found, with many other pieces of sculpture, in the Villa Fonseca, on the Cælian Hill, in 1773.

No. 47. A head of one of the Homeric heroes. It is highly animated, and is looking upwards, apparently in great agitation. It was found, in 1771, by Mr. Gavin Hamilton, in that part of Hadrian's villa now called the Pantanella. Pt. 2. Pl. XXIII.

No. 48. A small statue of Jupiter sitting. He is represented in his two-fold capacity, as king of the upper and lower regions.

No. 49. A Greek funeral monument of Democles, the son of Democles, with a bas-relief and an inscription in eight elegiac verses. It was brought from Smyrna. *Presented, in 1772, by Matthew Duane, Esq., and Thomas Tyrwhitt, Esq.*

No. 50. A votive altar sacred to Bacchus. On the front, Silenus is represented riding on a panther. This altar was purchased at Rome from Piranesi, in 1771.

Upon it is a votive statue of a fisherman, holding a basket of fish in his left hand. Purchased at Rome.

No. 51. A bust of Caracalla; the head only is antique. It was found in 1776, in the Garden of the Nuns, at the Quattro Fontani, on the Esquiline Hill.

No. 52. A group of two dogs, one of which is biting the ear of the other in play. Found in 1774, by Mr. Gavin Hamilton, at Monte Cagnuolo, within the precincts of the vil of Antoninus Pius.

No. 53. A bust of the young Marcellus, erected to his memory by the Decemvirs, as is indicated by this inscription on the plinth: DECEMVIRI. STLITIBVS. IVDICANDIS. *Stlitibus* is an archaism for *litibus*. Found in an excavation near Rome in 1776.

No. 54. A bas-relief, representing Priam in the act of supplicating Achilles to deliver to him the body of his son Hector.

Upon it, a head of a female child. The hair is divided into plaits, which are twisted into a knot on the back part of the head. Some of the red paint, with which the hair was originally coloured, is still visible.

No. 55. A bust of Gordianus Africanus the elder, dressed in the Roman toga.

No. 56. A winged sphinx, which anciently formed part of the base of a superb candelabrum. It was found by Mr. Gavin Hamilton, in the ruins of the villa of Antoninus Pius, near the ancient Lanuvium.

No. 57. The front of the cover of a magnificent sarcophagus. It represents a group of cattle, on one side of which is an old Faun, and on the other a young Faun, both recumbent.

Upon it, two tiles in terracotta, brought from Athens; the fronts are painted. *Purchased in 1815.*

Underneath,

A fragment of a colossal toe.

A fragment of a colossal foot.

A votive foot, with a sandal. Round the foot a serpent is twined, with its head resting on the summit, which terminates a little above the ankle.

An earthen vase, which has two handles at the neck and terminates in a point at the bottom, like an amphora. It was found in the baths of Titus, with above seventy others of the same sort; all of them contained the fine African sand with which, when mixed with oil, the *Athletæ* rubbed their bodies before they exercised.

A votive foot covered with a sandal, and having a serpent twined round it as in the one before described.

A colossal hand.

A mask of Bacchus; the pupils of the eyes perforated.

No. 58. A bust of Julia Sabina, daughter of Matidia, whose mother was Marciana, the sister of Trajan.

No. 59. A square sepulchral cippus, with an inscription to M. Cælius Superstes.

Upon it, an Egyptian tumbler, practising his art on the back of a tame crocodile. This sculpture was brought from Rome by the first Lord Cawdor.

No. 60. A small statue of a muse, sitting on a rock, holding a lyre in her left hand; the plinth is inscribed ΕΥΜΟΥΣΙΑ, the giver of harmony.

No. 61. An unknown bust of a middle-aged man: round the base on which the bust rests is an inscription signifying that L. Æmilius Fortunatus dedicates this bust to his friend. The hair of the head and beard is short and bushy; the left shoulder is covered with part of the chlamys; the right shoulder and breast are uncovered.

No. 62. A small statue of Hercules sitting on a rock, with a

club in his left hand and the apples of the Hesperides in his right hand.

No. 63. A Greek sepulchral monument, with a bas-relief, and an inscription to Exacestes and Metra his wife.

No. 64. The front of a votive altar, with an inscription for the safe return of Septimius Severus and his family from some expedition. The parts in the inscription which are erased contained the name of Geta, which, by a severe edict of Caracalla, was ordered to be erased from every inscription throughout the Roman empire.

Upon it, is a small statue of a Muse, sitting on a rock and playing on a lyre.

No. 65. A head of Domitia, formerly called Messalina, the fifth wife of the Emperor Claudius. It was found in the Villa Casali, upon the Esquiline Hill, in 1775.

No. 66. A statue three feet ten inches high, ending from the waist downwards in a terminus. In the right hand is a bunch of grapes, at which a bird, held under the left arm, is pecking. It was found in 1774, on some swampy ground near the lake of Nemi.

No. 67. A votive altar, with a dedicatory inscription to Bona Dea Annianensis.

No. 68. A head of Jupiter Serapis. It bears a modius. The paint with which the face was originally coloured is still discernible.

SEVENTH ROOM.

BRITISH ANTIQUITIES.

A stone sarcophagus. In it were two glass vessels, each containing burnt bones, and much liquid; between them, two pair of shoes of purple leather, embroidered with gold. Near the sarcophagus were found the remains of a wooden box, with the brass clamps and round headed brass nails by which it had been held together, and with them two bottles of red pottery and two pans of the same, on which were some ashes, and two small rib bones. At some little distance was found the large globular earthen vessel. It contained some burnt bones, and the remains of a small glass bottle. It is capable of containing about six gallons. These were all found at Southfleet, in 1801, within the site of an old building about fifty feet square, and were *presented to the British Museum by the Rev. George Rashleigh, 1836.*

A small Roman altar, with a bas-relief, in front, of Ceres holding a cornucopia and pouring incense from a patera upon an altar.

A small Roman altar, with a bas-relief in front, of Mars or a Roman general, holding a spear and shield.

A small Roman altar, similarly decorated with the preceding. These three were found at King's Stanley, in Gloucestershire, and *presented by the Rev. Peter Hawker.*

A pig of lead, with the name of the Emperor Domitian inscribed upon it. It weighs 154 pounds. It was discovered, in the year 1731, under ground, on Hayshaw Moor, in the manor of Dacre, in the West Riding of Yorkshire. *Bequeathed by Sir John Ingilby, Bart., and presented by his Executors in 1772.*

A pig of lead, inscribed with the name of L. Aruconius Verecundus.

It weighs 81 pounds. It was found near Matlock Bank, in Derbyshire. *Presented, in 1797, by Adam Wolley, Esq., and Peter Nightingale, Esq.*

A pig of lead, with the name of the Emperor Hadrian inscribed upon it. It weighs 191 pounds. It was found in the year 1796 or 1797, on a farm called Snailbeach, in the parish of Westbury, 10 miles s.w. of Salop. *Presented, in 1798, by John Lloyd, Esq.*

A pig of lead, also inscribed with the name of the Emperor Hadrian. Its weight is 125 pounds. It was found on Cromford Moor, in Derbyshire. *Presented, in 1797, by Adam Wolley, Esq., and Peter Nightingale, Esq.*

A Roman altar, erected by some freedmen and slaves, upon the restoration of their master to health. On one side are the rod and snake of Æsculapius, and sacrificial instruments. On the other, are the cornucopiæ and rudder, with a patera, simpulum, &c. Found near the Watergate, Chester, 1779. *Presented by Sir Ph. de Malpas Grey Egerton, Bart.*

A large stone vessel, in form of half an octagon, on each of four sides are sculptured a bust in high relief, viz., Venus holding a mirror, Jupiter, Mercury with a caduceus, and Mars with a spear. It was first noticed by Horsley "lying neglected in the mill at Chesterford, Essex." It was afterwards procured by Dr. Foote Gower, from a blacksmith, who had used it as a cistern for cooling his irons. In 1780, Thomas Brand Hollis received it from the Doctor's widow, and *presented it, 1803.*

An altar, with a Greek inscription, dedicated by Diodora, a high priestess, to the Tyrian Hercules. One side is decorated with a bull's head and sacrificing-knife, the other with a crown. It was found at Corbridge, in Northumberland, and was *presented by His Grace the Duke of Northumberland, 1774.*

A bas-relief, representing a Roman standard of the second legion, between a Pegasus and Capricorn; underneath is LEG. II. AVG.

A colossal head, marble.

A small Roman altar, with a bas-relief in front, of Mars, as a Roman general, holding a spear and shield.

A small Roman altar, similar to the preceding.

A pig of lead.

EIGHTH ROOM.

At present unoccupied.

NINTH OR ANTE-ROOM. (UP STAIRS.)

To the left, at the foot of the stairs leading to this Room, a circular vase, or capital of a sepulchral cippus, decorated with foliage and the symbolical serpent.

No. 1. In the centre of the Room is placed the celebrated Barberini Vase, which was for more than two centuries the principal ornament of the Barberini Palace. This Vase was purchased of Sir William Hamilton considerably more than thirty years ago, by the Duchess of Portland, since which period it has been generally known by the name of the Portland Vase. It was found about the middle of the six-

teenth century, two miles and a half from Rome, in the road leading from Frascati. At the time of its discovery, the vase was inclosed in a marble sarcophagus, within a sepulchral chamber under the Mount called *Monte di Grano*. The material of which the vase is formed is glass: the figures, which are executed in relief, are of a beautiful opaque white, and the ground is in perfect harmony with the figures, and of a dark transparent blue. The subject of these figures is extremely obscure, and has not hitherto received a satisfactory elucidation; but the design and the sculpture are both truly admirable. This superb specimen of Greek art was deposited in the British Museum, in 1810, by his Grace the Duke of Portland.

No. 2. An ancient painting in fresco, representing deer; it was found in a subterraneous chamber at Scrofano, about sixteen miles from Rome. *From the collection of Sir William Hamilton.*

No. 3. A bas-relief, in stucco, representing a winged boy, or genius, carrying a pedom across his right shoulder. *From the collection of Sir William Hamilton.*

No. 4. An ancient painting in fresco, representing a female figure holding a patera, on which a vase is placed. *Presented, in 1771, by the Earl of Exeter.*

No. 5. An ancient painting in fresco, representing two females seated, in the Arabesque style, on the curling branches of a plant; one of them is holding a vase, the other a tambourin. Between these figures is a bas-relief, in stucco, representing a human head surrounded with ivy, and underneath are two birds drinking out of a well. *Presented, in 1757, by Thomas Hollis, Esq.*

No. 6. Decorations of Roman armour, found in Britain.

No. 7. A Persian sextant.

Case A. Antiquities from Persepolis, Babylon, and Nineveh. *Purchased with Mr. Rich's collection in 1825.*

Case B. An ancient lyre and two flutes found in a tomb at Athens. Antiquities, found by Sir R. Ker Porter in Persepolis, Babylon, &c.

Shelves C. Antiquities from Nineveh. *From Mr. Rich's collection.*

Shelves D. Antiquities from Babylon. *From Mr. Rich's collection.*

TENTH ROOM.

COLLECTION OF SIR WILLIAM HAMILTON, ETC.

Cases 1, 2, 3, 4. Penates or household gods, in bronze. In the lower part of these Cases are contained some large bronze vessels, one of which, in the form of a round deep patera, is remarkable for the beauty of its handles, which are raised above the edge: they represent two serpents holding an egg in their mouths; underneath the serpents is the ægis of Minerva.

Case 5. A raven, the size of life, and seven large candelabra, in bronze. The raven was presented, in 1777, by *Lord Seaforth*. It is of the finest workmanship, and has probably accompanied a statue of Apollo.

Case 6. Specimens of ancient glass. The principal articles are

eight cinerary urns. One of them has the leaden covering in which it was preserved; and another contains the burnt bones, and the asbestos cloth which prevented the ashes of the body from mixing with those of the funeral pile. These articles are accompanied by a great number of lachrymatories, and various other vessels and fragments of vessels, of different forms and colours; the whole of which afford ample proof of the ingenuity of the ancients, and of the great knowledge they possessed in the art of manufacturing glass, and of imparting to it whatever colour or form they chose.

Case 7. Necklaces, ear-rings, armillæ, and various other trinkets in gold, several of which are enriched with precious stones. Among the antiquities of gold in this Case are a bulla and a large patera; the latter is embossed with bulls, and was found at Girgenti in Sicily. This Case contains also a large collection of scarabæi, and engraved gems. *From the collection of Sir William Hamilton, Charles Townley, Esq., and the Rev. C. M. Cracherode.*

Case 11. Gems from the collections of Charles Townley, Esq., R. P. Knight, Esq., and the Rev. C. M. Cracherode. The celebrated bronzes of Siris, consisting of two portions of Greek armour, representing warriors combating with Amazons. A piece of small mosaic work, and a few specimens of ancient art executed in silver, mirrors, &c., are likewise among the articles included in this Case.

Case 15. Fragments in terracotta. They consist chiefly of small heads, some of which are well executed, and some are valuable as exhibiting specimens of the Roman head-dresses.

Case 16. Small figures, and miscellaneous articles in terracotta.

Case 17. Hindu, Chinese, and Japanese idols.

Case 26. Ditto.

Case 27. Small figures, and miscellaneous articles in terracotta.

Cases 28, 32, 36. Fragments of friezes in terracotta.

Case 37. Specimens of ancient armour in bronze, consisting of helmets, breast-plates, standards, swords, belts, heads of spears, points of arrows, &c. In the middle division of this Case is the Roman helmet which was found at Ribchester in Lancashire.

Case 38. A tripod, a lectisternium, a pair of steel-yards, and two very large candelabra, in bronze. The first two articles were presented by Sir William Hamilton, namely, the tripod in 1774, and the lectisternium in 1784.

Cases 39, 40, 41, 42. Miscellaneous antiquities in bronze, comprising scales, knives, pateræ, and simpula; mirrors, lamps, bells, and mortars; measures and wine-strainers; large vessels for culinary and other purposes; several small candelabra, and other articles.

Cases 43, 44, 45. A large collection of Roman lamps in terracotta.

Cases 46, 47, 48. Ditto.

Cases 49, 50, 51. A large collection of Roman lamps in terracotta.

Case 52. Dice and tali, formed of various substances.

Case 53. A great variety of tesserae in ivory, bronze, crystal, agate, and terracotta, many of which were tickets of admission to the theatres. In this Case also is a considerable number of styles for writing on wax tablets; pins for the hair; bodkins, and needles both for sewing and netting.

Case 54. Architectural mouldings in porphyry, part of a frieze in rosso antico, handles of knives, fragments of lectisternia, &c., &c.

Case 55. Stamps for sealing casks.

Case 56. A large collection of Roman weights.

Case 57. Votive offerings in bronze.

Case 58. Mirrors upon which are engravings principally in outline.

Case 59. Specimens of ancient painting, from Herculaneum.

Case 60. Mirrors, a patera, the umbo of a shield, and part of the scabbard of a parazonium, upon all which are engravings principally in outline.

Cases 61, 62, 63. Specimens of bas-reliefs in stucco, from the walls of Herculaneum.

Case 64. Celts.

Case 65. Various instruments used by the ancients.

Case 66. Celts.

Case 67. A marble patera, fourteen inches in diameter, found in the ruins of Hadrian's Villa; in this Case are also contained specimens of Roman enamel, and inlaid work; and likewise some figs and other vegetable substances, found in a calcined state in the ruins of Herculaneum.

Case 68. Armillæ, or bracelets, and various unknown ornaments, in bronze.

Case 69. A large patera of Oriental jasper, cups of crystal, agate, &c.

Case 70. Hinges and nails.

Case 71. Fibulæ, or brooches.

Case 72. Buckles used by the ancients for different purposes.

Case 73. Handles and other parts of vases.

Case 74. Ditto.

Case 75. Specimens of locks and keys.

Case 76. Spears, knives, and various instruments, in iron.

Case 77. Bits, spurs, and ornaments for harness; fragments of chains, &c.

Case 78. Some articles in bronze; the uses to which many of them were applied are unknown.

Case 107. A bronze statue of a Roman Emperor, probably of Nero when he was young. The figure is represented in armour, which is most beautifully inlaid. It was found near Barking Hall, in Suffolk, on the estate of the Earl of Ashburnham. *Presented, in 1813, by the Earl of Ashburnham.*

The remaining Cases in this Room, at present not arranged, contain various objects in bronze, terracotta, &c.

ELEVENTH ROOM.

GREEK AND ROMAN SCULPTURES.

No. 1. A bas-relief representing Minerva and two other deities. *Presented by H. Gally Knight, Esq., 1839.*

A fragment of a sepulchral monument.

A fragment of a mask of Bacchus.

A sepulchral monument to a girl, Abeita, deceased at the age of ten years and two months, who is represented seated, with a dog behind her in a fawning attitude.

Sepulchral monument, with figure of Astarte and Phenician inscription of two lines.

No. 2. Part of a frieze, representing the head of Medusa in a wreath supported by a Cupid, and the arm of another figure. *Presented by the Board of Control, 1837.*

Part of a frieze from the ruins of a temple at Paleóastro, ten miles S. of Joannina in Epirus, supposed to have been the temple of Jupiter at Dodona. *Presented by Col. Leake, 1839.*

No. 3. A man conducting a bull; from a sepulchral monument.
A portion of a capital of a piláster.

Youthful genii contending in a chariot race within the circus.

Fragment of a sepulchral monument to Eporia.

No. 4. *Blank.*

No. 5. A sepulchral monument to Cassiodorus, inscribed with six elegiac verses in Greek.

The front of a sarcophagus, with a Greek inscription to M. Sempronius Neicocrates.

A sepulchral monument, representing the deceased seated at a funeral banquet (*cœna feralis*); a veiled female seated near his feet.

No. 6. Sepulchral monument representing an individual reclining on a couch, and another standing.

Fragment of a bas-relief, representing a battle of Amazons, perhaps the death or capture of Penthesilea, from Brysæe in Laconia. *Presented by Col. Leake, 1839.*

Bas-relief, representing a votive offering of hair to Neptune, by Philombrotus and Aphthonetus, sons of Deinomachus. *Presented by Col. Leake, 1839.*

Bas-relief, representing the lustration of a horse and dog, from Cranon in Thessaly. *Presented by Col. Leake, 1839.*

No. 7. A small sepulchral monument, representing a veiled female seated.

A fragment of another, representing part of a female procession apparently approaching some deity.

A bas-relief, representing two men pouring wine into a large vessel, and two others attending on a cauldron placed upon a fire.

A sepulchral monument, representing a man fishing, inscribed to Agathemotaros.

Part of a sepulchral monument, representing a funeral banquet.

No. 8. A sepulchral monument; a husband, wife, and child, preparing to sacrifice to Serapis, reclining at a funeral banquet.

A sepulchral monument; a family of seven persons preparing to sacrifice a pig to two deities, seated at a funeral banquet.

A bas-relief, representing a horse held by a slave; cut from a monument, probably of one of the Equites singulares, who fought at the emperor's left hand.

No. 9. A bas-relief, representing the arms of the Dacians and Sarmatians.

No. 10. A sepulchral monument, representing the Dioscuri standing, with an altar between them, in a distyle temple.

A fragment of a frieze, representing two Cupids running a race in cars drawn by dogs; they appear to have just started from the carceres of a circus.

Part of a sepulchral monument, very much defaced; it appears to represent a man holding a bunch of grapes, with a cock at his feet. *Presented by Dr. Jarvis.*

No. 11. A bas-relief, representing a Faun playing on the double pipe.

A bas-relief, front of a sarcophagus, representing eleven infant genii under the character of a bacchanalian procession.

A bust of a sleeping child, in alto-relievo.

No. 12. A fragment of a bas-relief, representing three legs; they have belonged to two figures in powerful action, one of which appears to have been aiming a blow at the other, who is falling. *Bequeathed, in 1812, by the late Charles Lambert, Esq.*

No. 13. Inscription recording honours conferred on a Lacedæmonian physician by the Gytheatæ, from Gythium in Laconia. *Presented by Col. Leake, 1839.*

A sepulchral monument; a boy sacrificing to Mercury, standing near an altar inscribed DEO MERCVRIO.

A fragment, representing Pan playing upon a lyre, with a Faun playing upon a reed.

A fragment of a bacchanalian group.

Painted tile, from Ægium, in Arcadia. *Presented by Col. Leake, 1839.*

No. 14. Mithraic group. *Brought from Rome, in 1815, by Charles Standish, Esq., from whom it was purchased by the Trustees in 1826.*

At the back of the pedestal, a bas-relief, representing two persons, one abandoning his arms, the other sacrificing at an altar; beneath, an inscription recording the death of a warrior.

A bas-relief of Mercury, seated upon a heap of stones.

A sepulchral monument, with a Greek inscription, and a bas-relief of a skeleton.

No. 15. A sepulchral cippus, without any inscription. It is richly ornamented on the four sides with festoons of fruit.

Upon it is a Greek sepulchral urn, solid, and with a bas-relief in front; it is inscribed with the names of Pytharatus and Herophilus. *From the collection of Sir Hans Sloane.*

No. 16. A statue of an intoxicated Faun.

No. 17. A votive altar, dedicated to Silvanus.

Upon it is a trophy found on the plains of Marathon. *Presented, in 1802, by John Walker, Esq.*

No. 18. A statue of a Faun, formerly in the collection of the Rondinini Palace in the Corso at Rome, and thence called the Rondinini Faun. *Purchased in 1826.*

No. 19. A statue of a Discobolus, who is represented at that precise moment of time which immediately precedes the delivery of the discus. It is an ancient copy in marble, from the celebrated bronze statue executed by Myro. This statue was found in 1791, in the grounds of the Conte Fede, in the part of Hadrian's Villa Tiburtina, supposed to have been the Pinacotheca, or Picture Gallery.

No. 20. A sepulchral cippus, the inscription upon which appears to have been erased. This marble formerly stood in the Burioni Villa at Rome.

Upon it is a circular altar. *Formerly belonging to Col. Rooke, and presented, in 1825, by A. E. Impey, Esq.*

On this is placed a fragment of a youthful statue.

No. 21. A statue of Mercury, sleeping upon a rock. It was found near Roma Vecchia, with many other specimens of excellent sculpture, among some ruins which are generally believed to be the remains of a villa of Domitian's nurse.

No. 22. A Greek altar, of a square form, ornamented with sphinxes. *Presented, in 1775, by Sir William Hamilton.*

Upon it is a statue of Bacchus, represented as a boy about five years old. The head is crowned with a wreath of ivy, and the body is partly covered with the skin of a goat, the legs of which are tied across the breast. This little statue was found by Mr. Gavin Hamilton, in the ruins of the villa of Antoninus Pius, near the ancient Lanuvium.

No. 23. A statue of Cupid winged, bending his bow. *Purchased, in 1812, at the sale of the late Right Hon. Edmund Burke's Marbles.*

No. 24. A bronze statue of Hercules carrying away the apples from the garden of the Hesperides. Pt. 3. Pl. II.

Beneath, is one of the feet, or supports, of an ancient tripod table. Pt. 3. Pl. III.

No. 25. A large sepulchral cippus, with an inscription to M. Clodius Herma, Annius Felix, and Tyrannus.

Upon it is a circular sepulchral vessel of stone, inscribed with the name of Phænariste, the wife of Philophanus.

No. 26. A Greek funeral monument, with a bas-relief and an inscription. It is to the memory of a person named Alexander, a native of Bithynia. *This marble, brought from Smyrna, was presented to the Museum, in 1772, by Matthew Duane, Esq., and Thomas Tyrwhitt, Esq.*

No. 27. A small statue of Neptune, standing, with a dolphin by his side. *Presented by J. S. Gaskoin, Esq., 1836.*

No. 28. A shelf, containing

An unknown bust, the head perfectly bald.

An unknown bust of a female.

A bust of Diogenes the Cynic. *All bequeathed by the late R. P. Knight, Esq.*

Underneath, a fragment of a bas-relief, bearing a figure of a youthful Hercules.

Part of a bas-relief, representing four horses' heads from a quadriga, and a hand.

No. 29. A chair, after the model of an invalid's chair: found in the Antonine Baths.

A cinerary urn of marble; on the cover is a recumbent female figure. On the front is a bas-relief, representing Penthesilea dragged by the hair from her chariot by Achilles armed with a drawn sword.

A square altar, dedicated by Aur. Thimoteus to Diana; the three other sides are decorated with rude sculptures.

No. 30. Bust of Æschines, inscribed with his name, from Bitolia in the ancient Pelagonia. *Presented by Col. Leake, 1839.*

No. 31. Greek sepulchral monument of Tryphon, the son of Euty-chus, who is represented standing, nearly the size of life, holding in his

right hand a strigil, and with a garment on his left shoulder, in his left hand some undetermined object; in white marble. From Asia Minor.

No. 32. Head, supposed to be that of Homer, from Bitolia in the ancient Pelagonia. *Presented by Col. Leake, 1839.*

No. 33. A monumental inscription, cut from the front of a sepulchral cippus, to the memory of Claudia Tychen.

A cinerary urn of marble; on the cover is a recumbent female figure; on the front is a bas-relief, representing the hunt of the Calydonian boar, Meleager, Atalanta, &c.; at each end is a vase.

A sepulchral cippus, with an inscription to T. Claudius Epictetus.

No. 34. A shelf, containing

A bust of Hercules.

A bust, supposed to have been intended for Achilles.

A bust of a Faun. *All bequeathed by the late R. P. Knight, Esq.*

Underneath, a sepulchral monument to Sotnikes, who is represented standing enveloped in his pallium, with his hand to his cheek.

No. 35. Draped female, wanting the head.

No. 36. Greek funereal monument of Lenæus, son of Artemidorus.

No. 37. A fragment of a group in alto-relievo; a man is seated on a chair, with a female standing near him. It is so broken and mutilated that the subject cannot be ascertained.

No. 38. Sepulchral monument to Hermodorus, son of Aristomenes.

No. 39. *Blank.*

No. 40. An alto-relievo, brought from Athens, representing five of the labours of Hercules. *Presented by the Executors of Owen Salisbury Brereton, Esq.*

No. 41. *Blank.*

No. 42. Small statue of Ceres. *Presented by J. S. Gaskoin, Esq., 1836.*

No. 43. A shelf, containing

An unknown bust of a boy.

A bust of Ælius Cæsar.

An unknown bust. *All bequeathed by the late R. P. Knight, Esq.*

Underneath, a semi-circular sun-dial. *Purchased in 1821.*

No. 44. A Greek sepulchral monument, with a bas-relief, and an inscription to Mousis, who was a native of Miletus, and daughter of Argæus. It came from Athens. *Presented, in 1785, by the Dilettanti Society.*

No. 45. A Mithraic group.

Between this and the next No. a colossal votive foot.

No. 46. A head of Demosthenes. *Purchased in 1818.*

No. 47. The front of a tomb, from Delos. *Formerly belonging to Col. Rooke, and presented, in 1825, by A. E. Impey, Esq.*

No. 48. An unknown head. *Purchased in 1818.*

Between this and the next No., a bas-relief representing three nymphs standing between Jupiter and Pan.

No. 49. A recumbent female, resting her left arm upon an urn: her head encircled by a diadem.

No. 50. A Greek inscription, being a decree of the people of Athens and of the Piræus, in honour of Callidamas. It was brought from Athens by Dr. Chandler. *Presented, in 1785, by the Dilettanti Society.*

No. 51. A shelf, containing

A head of Tiberius.

A bust, inscribed to the memory of Cl. Olympias, by Epithymetus, her freed-man.

A head of Augustus. *All purchased, in 1812, at the sale of the late Right Hon. Edmund Burke's Marbles.*

A Greek inscription, originally placed under a statue of Jupiter Urius, which stood within a temple erected to that deity at the mouth of the Pontus. Spon and Wheler saw it inserted in the wall of a private dwelling at Chalcedon. *Presented, in 1809, by Miss Mead.*

Underneath, a bas-relief, representing the goddess Luna surrounded by the signs of the zodiac. *Presented, in 1818, by Col. de Bosset.*

No. 52. A seated figure of Cybele. *Presented by J. S. Gashoin, Esq., 1836.*

No. 52*. A terminal statue of a Faun.

No. 53. A very ancient Greek inscription, known by the title of the "Marmor Atheniense." It relates to a survey of some temple at Athens, supposed to be the Erechtheium. *Brought to England by Dr. Chandler, and presented to the British Museum, in 1785, by the Dilettanti Society.*

No. 54. A large sepulchral cippus, with an inscription to Agria Agatha.

Upon it is a small domestic fountain, used for sacred purposes. It is decorated with four flights of steps, and four figures of Satyrs and Fauns in bas-relief.

No. 55. A bronze statue of Apollo. *Purchased at M. Lallemand de Choiseul's sale at Paris, in 1774. Pt. 3. Pl. VII.*

Beneath is one of the feet, or supports, of an ancient tripod table, executed in porphyry. It represents the head and leg of a Panther. *Pt. 3. Pl. VIII.*

TWELFTH ROOM.

GREEK AND ROMAN SCULPTURES.

No. 1. A head of Juno, crowned with a broad indented diadem: placed upon

An upright narrow piece of marble, ornamented with branches of the olive and the vine.

No. 2. A shelf, containing

An unknown female head; the sockets of the eyes are hollow, and have been originally filled with coloured stones, or some other material.

A head of Diana.

An unknown female head, with a broad fillet across the forehead.

Underneath, an epitaph on a dog. *From the collection of Sir Hans Sloane.* Upon this is placed

Cupid, in his character of Somnus, sleeping upon the skin of a Lion. This sculpture was found in a vineyard belonging to the Marchese Capponi, near the Flaminian Gate of Rome: it once belonged to Cardinal Alessandro Albani, from whose collection it passed to Mr. Lyde Browne, and from him to Mr. Townley.

No. 3. An unknown head.

No. 4. A head of Apollo. It was brought from Rome by Lord Cawdor.

No. 5. A head of a lion, being a fragment of a large sarcophagus.

Underneath, an oblong square basin of granite, similar to such as were used in the temples to contain the water necessary for the purification of those who sought admittance to the sacrifices.

No. 6. A mask cut from the cover of a large sarcophagus. *From the collection of Sir William Hamilton.*

No. 7. A terminal head of Libera.

No. 8. A Case containing the following objects:—

Small terminal heads of Bacchus and Libera, joined back to back.

A small terminal head of Libera. *From the collection of Sir William Hamilton.*

Ditto, in yellow marble.

Ditto, in red marble.

A small terminal head of Libera, in reddish yellow marble, with a necklace composed of ivy leaves.

A small terminal head of Libera, in white marble, with the breast covered with drapery. *From the collection of Sir William Hamilton.*

A terminal head of the bearded Bacchus. *From the collection of Sir William Hamilton.*

A small female head, the hair of which is formed of a distinct piece of marble, and is fitted to the head in the manner of a wig.

A small head of a young man, covered with a helmet, which is ornamented with the horns of a ram. *From the collection of Sir William Hamilton.*

A small mask of Silenus. *From the collection of Sir William Hamilton.*

A small cylindrical piece of marble, which appears to have been part of the stem of a candelabrum. It is ornamented with four griffins and two candelabra.

A fragment of a bas-relief, representing the head of an elderly man. It has the beard on the chin and upper lip, and the hair of the head is short and curly. *From the collection of Sir William Hamilton.*

A fragment of a bas-relief, representing a head of Antinous. *From the collection of Sir William Hamilton.*

A votive barrel, sacred to Bacchus.

A small terminal head of the bearded Bacchus, in yellow marble. *From the collection of Sir Hans Sloane.*

A votive horn, in marble, two feet long.

On No. 8:—A head of a female Bacchante.

A votive torso of an athleta, in terracotta, the size of life. *Presented by W. G. Coesvelt, Esq., 1834.*

A head of a laughing Faun.

No. 9. A head of Adonis, covered with the pyramidal hood. The lower part of the face and neck is covered with drapery. It was found at Rome, and was formerly in the villa of Pope Sixtus V., called the Villa Montalto.

No. 10. A shelf containing

A head of Jupiter Serapis, in green basalt. It was obtained by Sir Robert Ainslie, whilst ambassador at Constantinople.

An eagle, in marble.

A head of Jupiter Serapis. *From the collection of Sir William Hamilton.*

Underneath, a piece of Mosaic pavement, found at Woodchester, in the county of Gloucester. *Presented, in 1808, by Samuel Lysons, Esq.*

No. 11. A shelf containing

A small bust of Antoninus Pius; the head only is antique. It was formerly in the Barberini Palace at Rome.

A small figure of a recumbent Satyr.

A bust of a child, with the breast naked.

Underneath, a bas-relief, representing, probably, Jupiter and Ceres standing, each holding a cornucopia. *Presented by the Right Hon. Sir Joseph Banks, Bart.*

No. 12. A bust of an unknown female, represented in the character of Isis. It is gracefully terminated by the flower of the nymphæa lotus, on which it appears to rest. This singularly beautiful bust was purchased at Naples from the Laurenzano family in 1772.

No. 13. A Case containing the following articles:—

A fragment of a small head of Hercules, covered with the skin of a lion. *Presented, in 1757, by Thomas Hollis, Esq.*

A funeral mask which was used to cover the face of a female corpse. *From the collection of Sir William Hamilton.*

A small head of Hercules. *Presented, in 1757, by Thomas Hollis, Esq.*

A small unknown bust, with a military garment. The head is of yellow marble. *Presented, in 1757, by Thomas Hollis, Esq.*

A small head of Hercules, very much injured by the decomposition of the marble. *From the collection of Sir William Hamilton.*

The capital of a small column of the Ionic order. *From the collection of Sir William Hamilton.*

A small unknown head. *From the collection of Sir William Hamilton.*

A small head of Vulcan, covered with a cap. *From the collection of Sir William Hamilton.*

A votive mask of a bearded Faun. *Presented, in 1765, by Thomas Hollis, Esq.*

A small unknown female head, the hair of which is tied in a knot behind. *From the collection of Sir William Hamilton.*

A small head of Juno. *Presented, in 1757, by Thomas Hollis, Esq.*

A group representing Venus and two Cupids.

One of the handles of a vase. *From the collection of Sir William Hamilton.*

A fragment of a bas-relief, representing part of a female figure. *From the collection of Sir William Hamilton.*

A bas-relief, representing a mask of a Faun.

A left foot covered with a sandal.

The right foot of a child.

A hand of a female, holding a lock of hair. This fragment probably belonged to a statue of Venus, who was represented in the act of wringing the water from her hair. *From the collection of Sir William Hamilton.*

The right hand of a female holding a pipe.

A lion's foot, which probably has formed part of a tripod table.

The left hand and part of the arm of a female, probably Psyche, holding a butterfly.

A lion's foot, which probably has formed part of a tripod table.

The left hand of a female stretched out upon a fragment of something unknown.

The right hand of a youth, holding, apparently, a fragment of a bow.

This is probably part of a statue of Cupid bending his bow.

The right hand of a child holding the head of a ram.

A left foot, covered apparently with linen, round which bandages are fastened.

A large votive patera, with a bas-relief on each side, one representing Silenus, and the other a Satyr. *From the collection of Sir William Hamilton.*

A small fragment of a figure holding a bird.

The left hand of a child holding a fragment.

A torso of a male figure, the arms of which appear to have been raised above the head.

A small mutilated figure. The right breast is naked; the other parts are entirely covered with drapery. It has a necklace, from which a scarabæus is suspended.

A head of an eagle, which appears to have served as the hilt of a sword. *From the collection of Sir William Hamilton.*

A votive patera, with a bas-relief on each side, one representing a mask of the bearded Bacchus, and the other a panther. *From the collection of Sir William Hamilton.*

A fragment of a serpent.

A torso of a Faun. *Presented, in 1833, by the Rev. Henry Crowe.*

On No. 13:—A head of a Muse, crowned with a wreath of laurel.

A draped portion of a female statue; the upper part has been naked, and sculptured from a separate block of marble.

A head of one of the Dioscuri.

No. 14. A head of Apollo.

No. 15. A head of Cybele.

No. 16. A head of a lion, which was a part of the same sarcophagus from which No. 5 was taken.

Underneath, a cistern of green basalt, originally used as a bath. On the sides are carved two rings in imitation of handles, in the centre of which is a leaf of ivy.

No. 17. A head of Minerva. It was purchased from Mr. Gavin Hamilton at Rome, in the vicinity of which city it was found.

No. 18. A colossal head of Antinous in the character of Bacchus; it is crowned with a wreath of ivy. This head, with several parts of the statue to which it belonged, was found in 1770, in small pieces, made use of as stones in a wall, erected during the barbarous ages, in the grounds called La Tenuta della Tedesca, near the Villa Pamfile.

No. 19. A shelf containing

A head, apparently of a trumpeter.

A head of Diana, the hair of which is drawn up from the sides, and tied in a knot at the top of the head. *From the collection of Sir William Hamilton.*

A head of a goat.

Underneath, a small domestic fountain, of a square form, which was used for sacred purposes.

No. 20. A bust of Minerva; the head only is antique. It was found in 1784, in the Villa Casali, amongst ruins supposed to have belonged to the baths of Olympiodorus. The helmet and the bust, which are of bronze, are, with some variations, copied from an ancient bust of Minerva which was formerly in the Vatican, but is now at Paris. Placed upon

An upright narrow piece of marble, ornamented with branches of the olive and the pine.

In the PASSAGE leading from Room XII. to the Grand Central Saloon are

A gilt bronze statue of a female Indian deity, found in the Island of Ceylon.

A Chinese ginal. *Presented by G. French Argus, Esq., 1841.*

Some Hindhu bas-reliefs and sculptures.

An Arabic tombstone from Aden. *Presented by Messrs. Newman, Hunts, and Christophers, 1840.*

A collection of figures in sandstone and calcareous stone, the work of the ancient inhabitants of Mexico. *Presented by Capt. Vetch, 1842.*

The ape-headed Hindhu deity Hanuman, standing in the attitude of prayer.

GRAND CENTRAL SALOON.

Over the entrance,

Plaster cast of the face of the Northern Colossus at the rock temple of Ipsamboul.

Against the square columns on the west side are placed

A statue of Venus preparing for the bath; of white marble. *Presented by HIS MAJESTY KING WILLIAM IV.*

A statue of the Emperor Hadrian, in a military dress; the breast-plate is in high preservation, and richly ornamented. *Purchased in 1821.*

Against one pilaster on the north side is a bust of Jupiter. *Presented by J. T. Barber Beaumont, Esq., 1836.*

Against the other, a head of Apollo. *Presented by the Hon. Mrs. Damer.*

Against a pilaster on the east side, a mutilated draped statue of a youth.

Against another, a mutilated statue of a draped female.

In the first recess,

A female statue without head and arms, found in the temple of Themis at Rhamnus in Attica. *Presented, in 1820, by John P. Gandy Deering, Esq. (307*.)*

Casts of sculptures and inscriptions from Persepolis, &c. *Presented by the Rt. Hon. Mountstuart Elphinstone.*

Persepolitan sculptures and inscriptions; those numbered 48, 85, 86, 87, 88, *presented by the Rt. Hon. Sir Gore Ouseley*; 89, 90, 91, 92, 93, *by the Earl of Aberdeen, in 1818.*

In the centre recess,

Casts from Persepolitan sculptures. *Presented by the Rt. Hon. Mountstuart Elphinstone.*

In the third recess,

Casts of Persepolitan sculptures. *Presented by the Right Hon. Mountstuart Elphinstone.*

Arabic inscriptions. *The three marked F presented by Col. Franklin.* Of these, the small one was placed over the door of Firus Shah's Minaret at Gour; the large one upon the same shelf was in front of the Golden Mosque at Purroah; and the one upon the ground was upon the mosque of Mohajen Tola, at Gour.

ANTE-ROOM.

ROMAN SEPULCHRAL ANTIQUITIES, IN THE SOUTH RECESS OF THIS ROOM.

No. 1. A sepulchral urn, with a bas-relief in front; it appears never to have been used, as it is solid, and without any inscription. *Presented in 1817, by W. A. Mackinnon, Esq.*

No. 2. A sepulchral urn, with an inscription to Atimetus. *Presented, in 1817, by W. A. Mackinnon, Esq.*

No. 3. A funeral inscription to M. Nævius Proculus. *Presented, in 1757, by Thomas Hollis, Esq.*

No. 4. A sepulchral urn, with an inscription to Vernasia Cyclas.

No. 5. Ditto, with an inscription to L. Lepidius Epaphras. *Presented, in 1817, by W. A. Mackinnon, Esq.*

No. 6. Two earthen ollæ, such as contained the ashes of the slaves and inferior order of the Roman people. The monumental inscription, in front of them, records the names of Anniolena Maxima and Servilia Irene.

No. 7. A circular sepulchral urn, with an inscription to Pompeius Justinianus.

No. 8. Ditto, with an inscription to T. Titulenus Isauricus. It was formerly in the Mattei Collection.

No. 9. *Blank.*

No. 10. A sepulchral urn, with an inscription to Fl. Ælius Victor. It was brought from Rome about 1780 by the then Duke of St. Alban's.

No. 11. Ditto, with an inscription to Silia Attica: formerly in the Burioni Villa.

No. 12. A sepulchral vase, found in a tomb near Naples.

No. 13. A sarcophagus, on the front of which is represented the lamentation of a family over a female corpse.

Under No. 13. Front of a sepulchral urn, inscribed to Cornelia Servanda and Cornelia Onesime.

No. 14. A sepulchral urn, in the form of a circular temple, with an inscription to Serullia Zosimenes.

No. 15. Ditto, with an inscription to P. Licinius Successus. It was purchased by Mr. Townley, in 1786, at the sale of Sir Charles Frederick's Collection.

No. 16. *Blank.*

No. 17. A sepulchral urn, with an inscription to Cossutia Prima.

It was found in the grounds belonging to the Villa Maroni, near Rome, in 1788.

No. 18. A sepulchral urn, with an inscription to Ti. Claudius Lupercus. *Presented, in 1817, by W. A. Mackinnon, Esq.*

No. 19. Two earthen ollæ, similar to those described at No. 6. The monumental inscription, placed in front of them, records the names of P. Stenius Rufus and Plosurnia Salvilla.

No. 20. A funeral inscription to Eutychia. It was found in the Villa Pellucchi, near the Pincian Gate, at Rome. *Presented, in 1757, by Thomas Hollis, Esq.*

No. 21. An Etruscan cinerary urn in baked clay. The bas-relief in front represents the hero Echetles fighting with a ploughshare for the Greeks at the battle of Marathon. Upon the cover is a recumbent female figure.

No. 22. A sepulchral urn, with an inscription to Claudia Fortunata. *From the collection of Sir Hans Sloane.*

No. 23. A funeral inscription to Lucretia. *Presented, in 1757, by Thomas Hollis, Esq.*

No. 24. An Etruscan cinerary urn in baked clay. The story of Echetles is represented in front (see No. 21), and on the cover is a recumbent female figure. The figures on this monument were originally painted. On the upper part of the urn is an Etruscan inscription in red letters. *From the collection of Sir William Hamilton.*

No. 25. A sepulchral urn, with an inscription to T. Sex Agatha.

No. 26. A sepulchral vase, in alabaster, with an inscription to Flavia Valentina. This urn still contains the ashes of the deceased; with which, when first discovered, were mingled seven coins of emperors from Antoninus Pius to Elagabalus inclusive. It was found in 1772, about two miles from the Lateran gate of Rome, near the Via Latina.

No. 27. A sepulchral urn, with an inscription to Junia Pieris.

No. 28. An earthen olla, similar to those described at No. 6. The monumental inscription placed in front of it records the name of Opilia Faustilla.

No. 29. A sepulchral urn, with an inscription to Cœlia Asteris. It was found in the environs of Naples. *From the collection of Sir William Hamilton.*

No. 30. Ditto, with an inscription to P. Octanus Secundus. The lid is modern.

No. 30*. A sepulchral vase, in yellow alabaster.

No. 31. A fragment of a testamentary inscription, sawed from the front of a sarcophagus found, in 1776, in the Villa Pellucchi, near the Pincian Gate of Rome.

No. 32. A sepulchral urn, with an inscription to Pompeius Locusto, Attilia Clodia, and Pompeius. It was found in the vicinity of Rome, in that part which was called "Ager Romanus." *From the collection of Sir William Hamilton.*

No. 33. Ditto, with an inscription to C. Magius Pal. Heraclides.

No. 34. An Etruscan cinerary urn in baked clay. The bas-relief in front represents the single combat between the two brothers, Eteocles and Polynices. The two female figures, who are standing near

the combatants, are Furies. An Etruscan inscription is painted in red letters on the upper part of this urn; on the cover is a recumbent female figure. *From the collection of Sir William Hamilton.*

No. 35. A sarcophagus, on the front of which various figures of Cupid and Psyche are represented. It was brought from Rome many years ago by the then Duke of St. Alban's.

No. 36. A sepulchral urn, with an inscription to D. Albiccius Licinus. Purchased by Mr. Townley in 1786, at the sale of Sir Charles Frederick's collection.

No. 37. Ditto, with an inscription to Flavia Eunya.

No. 37*. A sepulchral vase, in yellow alabaster.

No. 38. A monumental inscription to Dasumia Soteris. Published by Fabretti in his *Inscriptions*, p. 257. It was found in the Villa Pellucchi, near the Pincian Gate at Rome.

No. 39. A sepulchral vase, in alabaster. *From the collection of Sir William Hamilton.*

No. 40. A sepulchral urn, with an inscription to Isochryses. Formerly in the Mattei collection.

No. 41. An earthen olla, similar to those described at No. 6. The monumental inscription, placed in front of it, records the name of Apuleia Tychen.

No. 42. A funeral inscription to Flavia Provincia.

No. 43. A sepulchral urn, with an inscription to Pilia Philtata. *From the collection of Sir William Hamilton.*

No. 44. A funeral inscription to Isidorus. *Presented, in 1757, by Thomas Hollis, Esq.*

The objects in this recess as far as to this Number are figured, and more particularly described, in "The Description of the Ancient Marbles in the British Museum." Pt. 5.

No. 45. A terracotta sarcophagus discovered in a tomb at Tuscania, the front of which is decorated with two dolphins; on the cover is the recumbent figure of a young woman, with one leg bent under the other; her head, which is decorated with a wreath of flowers, rests upon her right arm.

At the opposite end of this Room are four sarcophagi discovered in a tomb near the road leading from Tuscania to Tarquinia; the fronts are decorated with sculpture and inscriptions, and on the cover of each is a recumbent statue of the person whose remains were deposited within. Near them lies, for the present, a terracotta sarcophagus; the front is marked with two branches, probably of palm; and on the cover is the recumbent figure of a female with one leg bent under the other, as in that already described of the same material, and found near the same place.

In the centre of the Room stands a magnificent marble Tazza or vase of very large dimensions, the height being 4 feet $3\frac{1}{2}$ inches, and the diameter of the cup 3 feet 7 inches. It stands upon a single stem, and has handles very curiously formed of swans' necks and heads gracefully intertwined. It was brought to England in 1825. *Presented by Lord Western, 1839.*

A pedestal on which, as appears from the inscription, was a statue of Peraia, daughter of Apollonius, son of Hermogenes, erected by her son Socrates.

On this pedestal is a statue in white marble representing the youthful Bacchus or a Faun, found at Antium.

Pedestal of calcareous stone, on which has apparently been placed the statue of Apollonius, son of Hermogenes, and father of Peraia, the mother of Socrates; erected to him by the same Socrates.

On this pedestal is a bronze statue, the size of life, found at Zifteh, supposed to represent Eros Apteros; the eyes are inlaid with silver and the nipples with copper. It is composed of nine pieces hammered together. *Purchased in 1840.*

PHIGALIAN SALOON.

Nos. 1—23. Bas-reliefs, representing the battle of the Centaurs and Lapithæ, and the combat between the Greeks and Amazons; they were found in the ruins of the temple of Apollo *Epicurius* (or the deliverer) built on Mount Coty lion, at a little distance from the ancient city of Phigalia in Arcadia. These bas-reliefs composed the frieze in the interior of the Cella. The battle of the Centaurs and Lapithæ is sculptured on eleven slabs of marble (1—11). That of the Greeks and Amazons occupies twelve (12—23). The direction of the slabs belonging to the former subject was from right to left; that of the latter from left to right.

A circumstance which adds very much to the interest of these marbles is our knowledge of the precise time when they were executed; for Pausanias, in his description of this temple, informs us that it was built by Ictinus, an architect contemporary with Pericles, and who built the Parthenon at Athens. These marbles are all engraved and more fully described in the fourth part of the description of the Museum Marbles.

No. 24. A fragment of a Doric capital of one of the columns of the peristyle. From the same temple.

No. 25. A fragment of an Ionic capital of one of the columns of the cella. From the same temple.

Nos. 26, 27. Two fragments of the tiles which surmounted the pediments, and formed the superior moulding. From the same temple.

Nos. 28—38. Fragments of the Metopes, found in the porticos of the pronaos and posticus, which were enriched with triglyphs. From the same temple.

No. 39. A small tile, which was used for the purpose of covering the joints of the greater tiles; the ornament in front surmounted the cornice. From the same temple.

No. 40. Another tile used for the same purpose, but on the point of the ridge. From the same temple.

No. 41. A cast in plaster, from one of the ends of the celebrated sarcophagus in the cathedral church at Agrigentum, which represents the story of Phædra and Hippolytus. Phædra is here represented surrounded by her female domestics, and plunged into grief at the refusal of Hippolytus, which has just been communicated to her. The attendants are endeavouring, in various ways, to console their mistress, and some of them attempt to alleviate her distress by the sounds of their instruments.

The large fragment of a bas-relief, numbered 166, belongs to the

Elgin collection: it represents Hercules preparing to strike Diomed, king of Thrace, whom he has already knocked down, and is holding by the hair of his head.

At the sides of the SALOON, over the Phigalian frieze, are two pediments, of precisely the same form and dimensions as those which decorated the eastern and western ends of the Temple of Jupiter Panhellenius, in the island of Ægina. The ruins of this temple were visited in 1811 by Mr. Cockerell and other gentlemen, and extensive and careful excavations were carried on, by which all the members and details of the cornice and mouldings have been ascertained; and the minute and accurate measurements then made have been the authorities from which these imitations have been constructed. The greater part of the statues which adorned these pediments were at the same time discovered, and every circumstance illustrative of their original position, with relation to the architecture of the temple, was noted with as much accuracy as the case would admit. From the notes then made, and from long and careful study of the sculptures themselves, and the space which they occupied, Mr. Cockerell composed the groups very much in the mode in which they are now exhibited. From the violence with which the temple had been destroyed, probably by an earthquake, all the statues had been in some degree mutilated, and some so entirely destroyed that it was in vain to attempt their restoration. Those which were capable of repair were committed to the hands of Mr. Thorwaldsen, and in uniting the broken fragments, and restoring the parts of them that were deficient, that eminent artist has shown the greatest care and sagacity.

The pediment at the north side of the room is taken from the western end of the temple; it contains ten figures, and it is supposed that there was originally one more, who was stooping down to assist the fallen warrior, who is wounded, at the feet of Minerva. The subject is supposed to be the contest between the Greeks and Trojans for the body of Patroclus.

Of the figures which adorned the other pediment only five now remain, and the loss of the rest is the more to be lamented, as the sculptures of this eastern end are of a much higher character than those of the western. From the few figures which are still spared to us, it appears that the subject of this picture was similar to that of the other pediment, modified only by the taste and skill of the artist.

In this room are two sarcophagi; one, found at Tarquinia, is decorated on all sides with sculptures, representing, on three sides, the sacrifice of human victims; on one end, a gladiatorial exhibition. Within this sarcophagus were found the bones of the deceased, with his shield, and other armour. The other sarcophagus was found at Polommarzo. The cover is in form of a roof, terminating at the cornice with tiles, masks, &c. Upon the ridge of the roof are, at each end, a sphinx, and in the middle two serpents. All the sides are decorated with sculptures, amongst which, on the front are two genii, on the back a genius and an armed warrior.

These sarcophagi, a torso of Venus of very fine sculpture purchased in 1821, an imperfect statue of Hymen purchased in 1831, and a few more articles, are not yet numbered, the arrangements of the Room not being completed.

ELGIN SALOON*.

Many of the sculptures in this Room having been described by various authors, and referred to by the numbers with which they were marked in their former situation, those numbers have been retained : but to facilitate a reference from the Synopsis to the marbles, a fresh set of numbers, adapted to their present disposition, has been added, which will easily be distinguished from the former by being painted in *red*. The general order observed in affixing these numbers to the several objects is as follows :—

1. The metopes of the Parthenon.
2. The frieze of the Parthenon, commencing on the left hand of the visitor as he enters the room.
3. Such of the sculptures placed along the middle of the room, as belonged to the eastern and western pediments of the Parthenon.
4. The remaining articles placed along the middle of the room.
5. The casts and bas-reliefs above the frieze on the eastern side of the room (those nearest the entrance being taken last in order).
6. All the objects below the frieze, taken in their order of position, and commencing, as before, on the left of the entrance.

The original numbers are subjoined to the descriptions. Those which have the letter A prefixed refer to such articles as were originally placed in the room then denominated the fourteenth.

Nos. 1—16. Sixteen of the metopes belonging to the Parthenon, (of which No. 9 is a cast in plaster, from the original in the Royal Museum at Paris,) which, alternately with the triglyphs, ornamented the frieze of the entablature surmounting the colonnade : they represent the battle between the Centaurs and Lapithæ, or rather between the Centaurs and Athenians, who under Theseus joined the Lapithæ (a people of Thessaly) in this contest. In some of these sculptures the Centaurs are victorious, in others the Athenians have the advantage, while in others, again, the victory seems doubtful with respect to either of the combatants. These magnificent specimens of ancient art are executed with great spirit in alto-relievo ; they were seen at a height of nearly forty-four feet from the ground. (11, 2, 8, 12, 15, 6, 4, 5, 13, 7, 1, 3, 9, 14, 10.)

The sculptures from 17 to 90 (inclusive) compose the exterior frieze of the cella of the Parthenon, which embellished the upper part of the walls within the colonnade at the height of the frieze of the pronaos, and which was continued in an uninterrupted series of sculpture entirely round the temple. It is in very low relief. The subject represents the sacred procession which took place at the great Panathenæa, a festival which was celebrated every fifth year, at Athens, in honour of Minerva, the patroness of the city. The bas-reliefs which compose this frieze are arranged, as nearly as can be ascertained, in the order in which they were originally placed in the Parthenon ; several alterations having been made on their removal to their present situation, in consequence of a more careful examination and minute comparison of them with drawings made before their removal from the temple. Those on the prin-

* All the articles in this room, except a few which are particularly specified, belonged to the Earl of Elgin.

cial front of the temple, namely the east, commence on the left hand of the visitor as he enters the room, then follow those of the north, and lastly those of the west and south.

Nos. 17—24. That portion of the above-mentioned frieze which occupied the east end of the temple. On two of the slabs which compose this part of the frieze are represented divinities and deified heroes, seated; namely, Castor and Pollux, Ceres and Triptolemus, Jupiter and Juno, and Æsculapius and Hygeia. There was originally a third slab, which represented four other divinities, also seated, but it has disappeared for many years. On the right and left of these sacred characters, are trains of females with their faces directed to the gods, to whom they are carrying gifts: we see also directors or regulators of the procession, among whom are the officers whose duty it was to receive the presents that were offered. These females appear to have headed the procession, and to have been followed by the victims, charioteers, horsemen, &c., both on the north and south sides of the temple, which together formed a procession up to the same point in two separate columns. Nos. 20 and 23 are casts in plaster, presented by Sir Francis Chantrey. The original of the latter is in the Royal Museum at Paris. The upper parts of two of the figures in No. 21, the legs and right arm of the youthful figure in No. 22, and the two figures placed under the latter number, are also of plaster, from moulds made before the destruction of these figures, which took place before the marbles came into the possession of Lord Elgin. (16, 17, 18, 18*, 19, 20, A 100, 21.)

Nos. 25—46. A portion of the same frieze, taken from the north side of the temple. No. 25 is a fragment of a much larger slab; it represents two of the *Meteci*, or strangers, who settled at Athens, and were allowed to take part in the procession. They carry on their shoulders a kind of tray filled with cakes and other articles. The remainder of this part of the frieze represents charioteers and horsemen. Among the latter are seven slabs, (Nos. 37—43,) which, whether we consider the elegance of the compositions, or the spirit with which the figures of the men and horses are executed, present us with the highest effort of the art of sculpture in the class of low relief. No. 46 having been placed at the south-west corner of the temple, the figure sculptured at the end of it belongs to that part of the procession which decorated the west end of the cella. It is repeated in plaster, that the whole of the western frieze may be seen by the spectator at one view. (22, 24, 23, 34, 98, 177*, 35, 35*, 37, 178*, 36, 35**, 38, 25, 26, 27, 28, 29, 30, 31, 38*, 32, 33.)

No. 47. A single slab of the frieze from the west end of the temple. It represents two horsemen, one of whom is riding before the other, and seems to be in the act of urging his companion to quicken his pace. The direction of these figures is the same as that on the north side, namely, from right to left. (39.)

There is a peculiarity in the frieze of the west end, which distinguishes it from that on the north and south sides of the temple. The subjects represented on the slabs of those two sides run one into another, that is, what was left imperfect in one slab is completed in the next; whereas in the west end the subjects are nearly complete on each piece of marble. The western frieze is likewise distinguished from

those of the two sides of the temple, by the comparatively few figures introduced into it.

Nos. 48—61. Fourteen plaster casts, composing the remainder of the frieze at the west end of the temple. (A. 75—88.)

Nos. 62—90. That portion of the same frieze which enriched the south side of the temple. It represents a procession of victims, charioteers, and horsemen, and is very similar, in its general character and appearance, to the frieze on the opposite or north side. With respect to the victims, we do not possess any that were on the north side of the temple; but that they formed a part of the procession on that side, as well as on the south, cannot be doubted, since Stuart, in his celebrated work on Athens, has engraved a fragment of one of them. The figure sculptured at the end of No. 90, (on the right of the entrance,) belongs to the eastern portion of the frieze. No. 62 was presented by R. C. Cockerell; Esq. (40*, 41, 41*, 38**, 46, 50, 47, 52, 40, 42, 49, 45, 48, 43, 44, 51, 38***, 53, 54, 56, 55, 15*, 57, 59, 61, 60, 58, 96, 62.)

The sculptures which follow, from 91 to 106, are from the pediments of the Parthenon. Nos. 91 to 98 are from the eastern pediment, on which was represented the birth of Minerva. Nos. 99 to 106 are from the western pediment, on which was represented the contest between Minerva and Neptune for the honour of giving name to the city of Athens. These sculptures are placed in the order in which they originally stood in the building.

No. 91. The upper part of the figure of Hyperion rising out of the sea. His arms are stretched forward, in the act of holding the reins of his coursers. This figure, which represents the approach of Day, occupied the angle of the pediment on the left of the spectator. (65.)

No. 92. The heads of two of the horses belonging to the car of Hyperion. They are just emerging from the waves, and seem impatient to run their course. (66.)

No. 93. A statue of Theseus, the Athenian hero; he is represented half reclined on a rock, which is covered with the skin of a lion. Theseus, it is well known, professedly imitated the character of Hercules; and it is worthy of remark, that the attitude here given to Theseus is very similar to that of Hercules on some of the coins of Crotona. (71.)

No. 94. A group of two goddesses, probably intended to represent Ceres and her daughter Proserpine; the latter is leaning on the right shoulder of her mother. They are sitting on low seats, which are nearly alike in their construction, both of them being furnished with cushions, and ornamented with mouldings of a similar style. (77.)

No. 95. A statue of Iris, one of the daughters of Oceanus, and the messenger of the celestial deities, particularly of Juno. Iris is represented in quick motion, with her veil inflated and fluttering behind her; and she appears evidently in haste to execute the mission on which she is sent, that of communicating to the distant regions of the earth the important intelligence of the birth of Minerva. (74.)

No. 96. A torso of Victory. The wings of this figure were probably of bronze: the holes in which they were fastened to the marble may still be seen. (72, 262.)

No. 97. A group of the three Fates. (67, 63.)

No. 98. The head of one of the horses belonging to the chariot of Night, which was represented plunging into the ocean on the right angle of the east pediment, that is to say, the right angle in reference to the spectator. The car of Day has been already described, (Nos. 91, 92,) as it was represented rising out of the waters on the opposite angle of the same pediment. (68.)

No. 99. A recumbent statue, supposed to be of the river-god Ilissus. The Ilissus was a small stream that ran along the south side of the plain of Athens. This figure, which, with the exception of the Theseus, is the finest in the collection, occupied the left angle of the west pediment. (70.)

No. 100. The torso of a male figure, supposed to be that of Cecrops, the founder of Athens. (76.)

No. 101. The upper part of the head of Minerva. (See the following No.) This head was originally covered with a bronze helmet, as appears from the holes by which it was fastened to the marble: and the sockets of the eyes, which were originally filled with metal or coloured stones, are now hollow. (118.)

No. 102. A fragment of the statue of Minerva, one of the principal figures in the west pediment, and of nearly the same proportions as the torso of Neptune, from the same pediment. (No. 103.) This fragment consists of a portion only of the chest of the goddess, which is covered, as usual, with the ægis. The angles of the ægis appear to have been ornamented with bronze serpents, and the centre of it to have been studded with the head of Medusa, of the same metal; the holes in which these ornaments were fastened to the marble are plainly visible. The upper part of the head of this statue, the feet, and a portion of the Erichthonian serpent, are preserved in the collection. See Nos. 101, 256, and 104. (75.)

No. 103. The upper part of the torso of Neptune, one of the principal figures in the west pediment. (64.)

No. 104. See No. 102. (271.)

No. 105. The torso of Victoria Apteros, or Victory without wings, who was represented in this manner by the Athenians to intimate that they held her gifts in perpetuity, and that she could not desert them. This goddess was represented driving the car of Minerva, on the west pediment; the car approached Minerva, as if to receive her into it, after her successful contest with Neptune. (69.)

No. 106. A fragment of a group which originally consisted of Latona with her two children, Apollo and Diana. This group was placed on the right side of the west pediment. All that remains in the fragment before us, is the lap of Latona, with a small portion of the figure of the infant Apollo. (73.)

No. 107. The celebrated Sigean inscription, first published by Chishull, in his "Antiquitates Asiaticæ," and afterwards more correctly by Chandler in his "Inscriptiones Antiquæ." It is written in the most ancient Greek characters, and in the *bustrophedon* manner, that is to say, the lines follow each other in the same direction as the ox passes from one furrow to another in ploughing. The purport of the inscription is to record the presentation of three vessels, namely, a cup, a saucer or stand, and a strainer, for the use of the Prytaneum, or

hall of justice, of the Sigeans. The name of the donor was Phanodiscus, the son of Hermocrates, and a native of Proconnesus. (199.)

No. 108. A piece of the ceiling of the temple of Erechtheus at Athens. (299.)

No. 109. The lower part of a female statue covered with drapery. (299*.)

No. 110. A piece of the shaft of an Ionic column, belonging to the temple of Erechtheus at Athens. (312.)

No. 111. A colossal statue of Bacchus, from the choragic monument of Thrasyllus, at Athens. It is a sitting figure covered with the skin of a lion, and with a broad belt round the waist; it was originally placed on the summit of the edifice, at a height rather exceeding twenty-seven feet. (205.)

No. 112. The capital, and a piece of the shaft of one of the Doric columns of the Parthenon. (207.)

No. 113. An imperfect statue of a youth; of the size of life, and of the most exquisite workmanship. (306.)

No. 114. A piece of the shaft of a column, belonging to the temple of Erechtheus at Athens. (304.)

Nos. 115, 116, 117, are now 199*, 199**, 199***.

No. 118. *Blank.*

No. 119 is now 113.

Nos. 120, 121, are now 187*, 187**.

No. 122. A sepulchral solid urn, having three figures in bas-relief on the front. The first of these is a warrior with a helmet and a shield, who is joining hands with an elderly man dressed in a long tunic; the third figure is a female. The inscription underneath these figures probably contained the names of the parties, but is too mutilated to admit of being deciphered. (167.)

No. 123. A sepulchral column, inscribed with the name of Anaxicrates, an Athenian, the son of Dexiochus; beneath the inscription is the representation of a sepulchral urn, executed in very low relief. (240.)

No. 124. Another monumental urn, of the same kind, inscribed with the name of Phædimus of Naucratis. (A. 51.)

No. 125. The capital of an Ionic column, from the portico of the Erechtheium, at Athens. The building to which this singularly beautiful piece of architecture belonged, was a double temple dedicated to Minerva Polias and Pandrosus. (A. 47.)

Nos. 126, 127. A portion of the shaft, and the base, of the same column. (A. 48, 49.)

No. 128. An architectural statue; it was one of the Caryatides which supported the roof under which the olive tree of Minerva was sheltered in the temple of Pandrosus at Athens. (A. 42.)

No. 129. A piece of the shaft of an Ionic column. (A. 43.)

No. 130. A capital of a Doric column, from the Propylæa at Athens. (206.)

No. 131. A part of a Doric entablature, from the Propylæa at Athens. (308.)

No. 132. A solid monumental urn, or cenotaph, with a bas-relief in front, not inscribed. (A. 50.)

No. 133. The capital of an Ionic column belonging to a temple of Diana at Daphne, on the road from Athens to Eleusis. (A. 44.)

No. 134. A piece of the shaft of an Ionic column, belonging to the same temple. (A. 45.)

No. 135. The base of an Ionic column, likewise belonging to the same temple. (A. 46.)

Nos. 136—149. Casts in plaster from the frieze of the pronaos of the temple of Theseus. The subject of this frieze is a battle fought in the presence of six divinities, who are represented sitting in the midst of the combatants. (A. 55—68.)

Nos. 150—154. Casts in plaster from the frieze of the posticus of the same temple. The subject of these sculptures is the battle of the Centaurs and Lapithæ. (A. 69—73.)

Nos. 155—157. Casts in plaster of three of the metopes of the north side of the temple of Theseus at Athens. The first represents Theseus killing Creon, king of Thebes; the second, Theseus overcoming Cercyon, king of Eleusis, in a wrestling match; and the third, Theseus killing the Crommian sow. (A. 52—54.)

Nos. 158, 159. Two bas-reliefs, which formed part of the frieze of a temple of the Ionic order (near the Propylæa at Athens), and dedicated to the Wingless Victory (Niké Apteros). The subject represented on them is a combat between the Greeks and Persians. (258, 257.)

Nos. 160, 161. Two bas-reliefs, from the same temple: the combatants appear to be all Greeks. (259, 260.)

No. 162. Fragment of a Greek inscription, very imperfect. (182.)

No. 163. Ditto. (183.)

No. 164. A bas-relief, representing a narrow upright vase with one handle: the form of this vase very much resembles that of the solid urns, so often used by the Greeks as sepulchral monuments. (276.)

No. 165. A Greek inscription from Athens, signifying that certain gifts, which are specified, had been consecrated to some goddess, probably Venus, by a female who held the office of lighter of the lamps, and interpreter of dreams, in the temple of the goddess. The name of this female, which was no doubt inserted at the beginning of the inscription, is now lost. (88.)

No. 166. An agonistic inscription, in Greek, consisting of the names of those who had conquered in the foot race of the stadium, and double stadium; in wrestling; in boxing; in the *pancratium*; and *pentathlum*. (93.)

No. 167. A fragment of a Greek inscription: it consists of twenty lines of very ancient characters, and seems to be a part of a treaty. (286.)

No. 168. A Greek inscription, imperfect, and very much defaced. It seems to be an inventory of valuable articles contained in some temple. (277.)

No. 169. A fleuron, from the temple of Ceres at Eleusis. (173.)

No. 170. A capital of a pilaster. (174.)

No. 171. A fragment of a very ancient Greek inscription from the Acropolis: it contains an account of certain expenses defrayed by those to whom the care of the public games was confided. The name of the Archon, under whom the stone was engraved, is effaced. (159.)

No. 172. A fragment of a decree; the beginning is wanting, and what remains is much mutilated. At the conclusion of the decree it is ordained that the people of Hierapytna in Crete shall affix to it the public seal. (157.)

No. 173. A Greek inscription, written in two columns; it contains a list of names arranged in the order of the tribes to which they respectively belonged. (92.)

No. 174. A votive Greek inscription, dedicated by some sailors, as a mark of their gratitude, to Apollo of Tarsus. (223.)

No. 175. A sepulchral column, of large dimensions; it is inscribed with the name of Aristides, who was the son of Lysimachus, and a native of Estiæa. (305*.)

No. 176. A fragment of a bas-relief, representing a figure standing upright in a dignified attitude; it is probably intended for Bacchus. (107.)

No. 177. A piece of a frieze, or architectural ornament, from the tomb of Agamemnon at Mycenæ. The sculpture is exceedingly ancient, and consists of two kinds of scroll-work, one of which represents the curling of the waves, and the other a series of pateræ, which are perfectly flat and plain. This stone is of a brilliant green colour. (220.)

No. 178. A fragment of a colossal female statue, from one of the pediments of the Parthenon; it has belonged to a sitting figure, of which the only remaining part is the left thigh, covered with drapery. (156.)

No. 179. A circular altar, from the island of Delos; it is ornamented with the heads of bulls and festoons in very bold relief. (106.)

No. 180. A piece of frieze, or architectural ornament, from the same place as No. 177. It consists of three rows of scroll-work, all of which are similar representations of the revolving of the waves. The colour of the stone is bright red. (221.)

No. 181. A sepulchral column with an inscription to the memory of Theodotus, who was the son of Diodorus, and a native of Antioch. (225.)

No. 182. A sepulchral solid urn, with a bas-relief representing three figures, one of which is seated. The inscription presents us with the following names: Archagoras, Pythyllis, and Polystratus. (274.)

No. 183. A sepulchral column inscribed with the name of Socrates, son of Socrates, and a native of Ancyra, a city of Galatia. (164.)

No. 184. A sepulchral column of Menestratus, the son of Thoracides, and a native of Corinth. (168.)

No. 185. A Greek inscription, imperfect, containing an account of the treasures of some temple, probably those of the Parthenon. The characters which we see on this marble are of a much more modern form than in the inscription of the same kind, No. 379. (216.)

No. 186. A sun-dial, with four different dials represented on as many faces. The inscription imports that it is the work of Phædrus, the son of Zoilus, a native of Pæania. From the form of the letters of this inscription, the sun-dial cannot have been made much earlier than the time of the Emperor Severus. It was found at Athens. (285.)

No. 187. A fragment of a Greek inscription: it is a decree of the people of Athens in honour of Hosacharus, a Macedonian. This decree was passed in the Archonship of Nicodorus, in the 3d year of the 116th Olympiad. (280.)

No. 187*. Part of the capital of an Ionic column. (306*.)

No. 187**. A circular altar, brought from the island of Delos. It is ornamented with the heads of bulls, from which festoons of fruit and flowers are suspended. (307.)

No. 188. A solid urn, or cenotaph, in the front of which two figures, a man and a woman, are represented joining hands. The former is standing, the latter is seated. The names of both were probably inscribed upon the urn, but that of the woman only is preserved, *Ada*. (110.)

No. 189. A fragment of a bas-relief, representing a procession of three figures, the last of which carries a large basket on his head: they are accompanied by two children. (284.)

No. 190. A fragment of a bas-relief, representing two of the goddesses, Latona and Diana, in procession. Similar bas-reliefs, in a more perfect state, are preserved in the Albani collection. The temple which is here introduced, is probably that of Apollo, which stood in the street at Athens, called the "The Tripods." (103.)

No. 191. A fragment of the upper part of a sepulchral stèle. (95.)

No. 192. A solid funeral urn, of large dimensions. It has a bas-relief in front, representing two figures joining hands; these figures consist of a female who is seated, and a man who is standing before her. The Greek inscription gives us the names of both persons: one is Pamphilus, the son of Mixiades, and a native of Ægilia; and the other is Archippe, the daughter of Mixiades. (237.)

No. 193. A bas-relief, representing a Bacchanalian group, found among the ruins of the theatre of Bacchus, on the south-west of the Acropolis. It consists of four figures, each carrying a thyrsus; one of these is Bacchus, dressed in the Indian costume, who with his right hand is holding out a double-handled vase, into which a female Bacchante is pouring wine from a monota, or vase with one handle. On each side of these figures is an elderly Faun, in a dancing attitude, one of whom is glancing his eye at the contents of a large vessel of wine placed on the ground. (235.)

No. 194. The upper part of the head of an Egyptian idol, in granite; the head is that of a lion, and is remarkable for being ornamented with a crown of serpents, similar to that which is spoken of in the Rosetta inscription. (105.)

No. 195. A very large funeral urn, solid, and without any inscription. It has three figures in bas-relief; the first of these is clothed in a tunic and is seated; the second is a warrior standing up and joining hands with the former; and the third is a boy carrying a large circular shield. (228.)

No. 196. A fragment of a bas-relief, representing a female figure seated in a chair, with a child standing by her side; the upper part of the woman is wanting. This fragment is probably part of a sepulchral monument. (162.)

No. 197. A bas-relief, imperfect, representing a charioteer driving

four horses at full speed; a figure of Victory is flying towards him with a crown. (236.)

No. 198. A fragment of a bas-relief, representing part of the body and legs of a boy. (109.)

No. 199. A cinerary urn, ornamented in front with four standing figures; two of these in the centre, are joining hands, the other two are in a pensive attitude. The names of all the figures were originally inscribed on the urn; the first name is not legible; the others are *Philia*, *Metrodora*, and *Meles*. (148.)

No. 199*. A bronze urn, very richly wrought. It was found inclosed within the marble vase in which it now stands, in a tumulus on the road that leads from Port Piræus to the Salaminian ferry and Eleusis. At the time of its discovery, this beautiful urn contained a quantity of burnt bones, a small vase of alabaster, and a wreath of myrtle in gold. (300.)

No. 199**. A large marble vase; it is of an oval form, and within it was found the bronze urn described in the preceding number. (301.)

No. 199***. A circular votive altar, ornamented with the heads of bulls, from which festoons are suspended. The inscription, in Greek, near the bottom, is a prayer for the prosperity and health of a person named *Casiniax*. (91.)

No. 200. A small female figure, covered with drapery; it is without a head. (90.)

No. 201. A sepulchral column of *Thalia*, the daughter of *Callistratus*, of *Aexone*. (149.)

No. 202. A votive Greek inscription, dedicated by *Gorgias* the *Gymnasiarch*. (224.)

No. 203. A decree of the people of *Tenos*, in honour of *Ammonius*, their benefactor: this decree is directed to be engraved on marble, and affixed in the temple of *Neptune* and *Amphitrite*. *Strabo* and *Tacitus* mention a celebrated temple that was dedicated to *Neptune* in this island, and it is highly probable that the same temple was dedicated to *Amphitrite*, as well as to *Neptune*. *Neptune* and his symbols frequently occur on the coins of *Tenos*. (231.)

No. 204. A fragment of a bas-relief, on which are represented part of the skin of an animal and the branch of a tree. (158.)

No. 205. Fragment of a Greek inscription, very imperfect. (178.)

No. 206. A fragment of a Greek inscription, engraved in very ancient characters. It seems to be a treaty between the Athenians and the people of *Rhegium*, a town of the *Bruttii*, in Italy. (282.)

No. 207. Small statue of *Ganymede*; part only of the eagle's claw remains upon the left thigh. (293.)

No. 208. A sepulchral column of *Mysta*: the Greek inscription informs us that she was a native of *Miletus*, daughter of *Dionysius*, and wife of *Rhathon*, who was a native of *Thria*, a town belonging to the tribe of *Cæneis*. (111.)

Nos. 209—218. Ten objects of small dimensions: they represent (with two exceptions) various parts of the human body, and have been offered up as vows to *Jupiter Hypsistos*, praying for the cure of diseases in those parts, or in gratitude for cures already received. The part of

the body which had received a cure has been broken off from No. 212; but the inscription implies, that Syntrophus presents it as a mark of his gratitude to Jupiter Hypsistos. No. 213 is a prayer in behalf of Euphrosynus. (247, 245, 249, 252, 241, 251, 248, 246, 253, 250.)

Nos. 219, 220. Two pieces of the architrave belonging to the temple of Erechtheus at Athens. (291, 85.)

No. 221. A fragment of a boy, holding a bird under his arm, and feeding it. (81.)

No. 222. A sepulchral column, inscribed with the name of Botrychus, son of Euphanus, and a native of Heraclea. (278.)

No. 223. A Greek inscription, imperfect, engraved in very small characters: it is an enumeration of the sacred dresses which belonged to some temple. (283.)

No. 224. A fragment of a bas-relief, representing the fore legs and part of the body of a bull. (160.)

No. 225. Fragment of a Greek inscription; very imperfect. (180.)

No. 226. A fragment of a Greek inscription; it is the latter part of a decree in honour of a person who had deserved well of some particular city. It is directed, as in the inscription No. 203, that the decree shall be engraved on marble, and placed in the temple of Neptune and Amphitrite. (230.)

No. 227. A small figure of Telesphorus, completely enveloped in a cloak; it wants the head. (78.)

No. 228. A sepulchral column, with an inscription to the memory of Biottus, who was the son of Philoxenus, and a native of Diradium. (275.)

No. 229. A sepulchral stèle, with a bas-relief, representing a man clothed in a tunic. The inscription over this figure records the name of Erasippus, who was the son of Callinicus, and a native of Œum in Attica. (212.)

No. 230. A solid sepulchral urn, with a bas-relief, representing five figures, executed in a singularly rude style. The first of these figures is a boy carrying a large circular shield, the second is a warrior joining hands with a third person, who is seated before him: the group is completed by the introduction of a child, and of a female whose attitude evinces a dejected state of mind. Over the warrior is the name of Sosippus, in Greek letters. (239.)

No. 231. The capital of an Ionic column, from the temple of Diana, at Daphne. (80.)

No. 232. The upper part of the shaft of a small Ionic column. (310.)

No. 233. The capital of a Corinthian column. (308*.)

No. 234. A fragment of a Greek inscription; it is too imperfect to admit of a full explanation, but it seems to have been in honour of a person who had distinguished himself on some occasion by great humanity. (170.)

No. 235. A fragment of a decree made by a society which is distinguished by a number of epithets, among which are two derived from the names of Hadrian and Antoninus. The Society appears to have been formed of musicians, and the decree to have been passed in honour of Bacchus and the Emperor Antoninus Pius. A patera is represented on the upper part of this marble. (161.)

- No. 236. A sepulchral inscription, in six elegiac verses, to a young man of the name of Plutarchus, who died in Ausonia, at a distance from his native country. (242.)
- No. 237. A Greek inscription, imperfect. (287.)
- No. 238. An amphora. (215.)
- No. 239. An unknown female head, the hair of which is concealed within a close head-dress. (122.)
- No. 240. A fragment of an unknown female head. (255.)
- No. 241. A fragment of a bas-relief, representing an unknown female head: from the style of the hair, which is curiously plaited, we may fix the sculpture to about the time of Antoninus Pius. (123.)
- No. 242. A head of the bearded Hercules. (120.)
- No. 243. A head of the bearded Hercules, similar to the last, but of larger dimensions. (117.)
- No. 244. A large head. (266.)
- No. 245. A female torso, covered with drapery. (296.)
- No. 246. A large head. (263.)
- No. 247. An unknown bearded head, very much mutilated: it is larger than life, and is crowned with a very thick cord-shaped diadem. (119.)
- No. 248. The head of a middle-aged man, with a conical bonnet; it appears to have had very little beard, and is most probably the head of a mariner. (116.)
- No. 249. A fragment of a head, crowned with vine leaves; it appears to have been executed at a declining period of the arts. (121.)
- No. 250. An unknown female head, the hair of which is confined within a close elegantly formed cap. The same style of head-dress is observable on some of the silver coins of Corinth. (114.)
- No. 251. The head of a laughing figure, executed in the early hard style of Greek sculpture. (115.)
- No. 252—255. Four pieces of the frieze from the temple of Erechtheus at Athens; they are enriched with flowers and other ornaments, which are designed with the most perfect taste, and are chiselled with a degree of sharpness and precision truly admirable. (127—130.)
- No. 256. The base on which a statue has stood; the feet, which still remain, are very wide apart, and shew that the figure must have been in powerful action; they are presumed to be the feet of Minerva, from the west pediment of the Parthenon. See No. 102. (201.)
- No. 257. An amphora. (171.)
- No. 258. The upper part of a sepulchral stèle, having the inscription, as well as the arabesque ornament on the summit, perfect. The inscription is to the memory of Asclepiodorus the son of Thraso, and Epicyles the son of Asclepiodorus; both the deceased were natives of Olynthus, a city in Macedonia. (169.)
- No. 259. The upper part of a sepulchral stèle, inscribed with the name of Euphrosynus. (155.)
- No. 260. A piece of Doric entablature, originally painted. (154.)
- No. 261. A Greek inscription, imperfect at the end, being a contract respecting the letting of some lands and salt pits by the people of Piræus. *Presented, in 1785, by the Dilettanti Society.* (289.)

- No. 262. An unknown bust. (100.)
- No. 263. A sepulchral solid urn, ornamented with reeds, and inscribed with the name of Timophon, the son of Timostratus, and a native of Anagyros, whose inhabitants were of the tribe of Erechtheis. (163.)
- No. 264. The capital of an Ionic column belonging to a temple of Diana, at Daphne, in the road to Eleusis. (295.)
- No. 265. A piece of the shaft of a small Ionic column, the lower part of which is fluted and reeded. (297.)
- No. 266. A sepulchral stèle, with a very ancient inscription to the memory of Aristophosa and others. A peculiarity occurs in this inscription, namely, that the letters *vo* are twice used for *viou*. (214.)
- No. 267. A Greek inscription, engraved on two sides of a thick slab of marble. It is an inventory of the valuable articles which were kept in the Opisthodomos of the Parthenon at Athens. (305.)
- No. 268. A fragment of the capital of a Corinthian column: it is ornamented with the leaves of the laurel and acanthus. (102.)
- No. 269. Fragment of a Greek inscription, very imperfect. (193.)
- No. 270. Ditto. (190.)
- No. 271. Ditto. (197.)
- No. 272. Ditto. (189.)
- No. 273. Ditto. (179.)
- No. 274. A sepulchral Greek inscription, engraved on a piece of entablature. It consists of two lines in prose, and sixteen in pentameter verse. The name of the deceased was Publius Phædrus, a native of Sunium, son of Theophilus and Cecropia, and grandson of Pistoteles. The inscription states that he was of noble family, and that his death was followed by the universal regret of the Athenians, on account of his youth, learning, wisdom, and personal accomplishments. (153.)
- No. 275. A fragment of a cinerary urn, on which are represented four figures in bas-relief. The two central figures consist of a young man and woman who are joining hands, and whose names are inscribed above in Greek characters, Demostrata and Callistus. Two other figures are standing by the side of these, in a pensive attitude. (104.)
- No. 276. A Greek inscription, engraved on two sides of a large piece of marble. It is an inventory of the sacred treasures belonging to the Parthenon. (298.)
- No. 277. Fragment of a figure. (147.)
- No. 278. A bas-relief, representing Hygeia feeding a serpent out of a patera. She is seated on a throne which is covered with a cushion, and her feet are placed upon a footstool. She wears a high ornament, or tutulus, on her head, and she has a fan, in the shape of an ivy leaf, in her left hand. (238.)
- No. 279. A bas-relief, imperfect, representing a goddess seated on a chair or throne, behind whom are seven figures, four of which are children; one of the latter is leading a ram to an altar, the rest are in the attitude of devotion. (94.)
- No. 280. A fragment of a bas-relief, representing a female sitting. (279.)
- No. 281. Fragment of a figure. (146.)
- No. 282. A Greek inscription, engraved on two surfaces of a tablet

of marble. It is an inventory of articles of gold and silver belonging to the Parthenon, and which the quæstors of the temple acknowledge that they have received from their predecessors. (311.)

No. 283. The upper part of a sepulchral stèle, inscribed with the name of Eumachus, who was the son of Eumachus, and of the city of Alopece. *Presented, in 1785, by the Dilettanti Society.* (292*.)

No. 284. Fragment of a Greek inscription, very imperfect. (184.)

No. 285. A fragment of a Greek inscription, containing a list of Athenians, with the townships to which they respectively belonged. We read the names of no less than twelve different townships in this small fragment; namely, according to the order in which they occur, Sunium, Ionidiæ, Alopece, Pallene, Halæ, Ericea, Colonus, Sphettus, Ceriadæ, Thoricus, Hephæstia, and Bate. (222.)

No. 286. The upper part of a sepulchral column, with an inscription to the memory of a person named Simon, who was the son of Aristus, and a native of Halæ in Attica. (217.)

No. 287. Fragment of a Greek inscription, very imperfect. (185.)

No. 288. Ditto. (187.)

No. 289. A portion of the cornice from the portico of the Erechtheum at Athens. (165.)

No. 290. The upper part of a sepulchral stèle, ornamented with leaves and flowers; the inscription is to the memory of Chabrias. (226.)

No. 291. A Greek inscription, engraved on three sides of a piece of marble. The characters are extremely ancient; but unfortunately the marble has been very much mutilated, and the letters defaced. (309.)

No. 292. An amphora. (211.)

No. 293. A bas-relief, representing a votive figure of Cybele, seated in a kind of small temple. (97.)

No. 294. Fragment of a Greek inscription, very imperfect. (192.)

No. 295. A fragment of a sepulchral stèle from which the bas-relief has been almost entirely broken away; the inscription is to the memory of Hieroclea, the daughter of Leucius. (218.)

No. 296. Fragment of a Greek inscription, very imperfect. (188.)

No. 297. A small tile, in terracotta, which has been used to cover the joints of the larger tiles. The front is enriched with a fleuron, and is also inscribed with the name of the maker, Athenæus. (113.)

No. 298. A votive monument with two Greek verses, signifying that Horarius had dedicated some lamps, which he won in the games, to Mercury and Hercules. The bas-relief above, which probably represented the two deities here mentioned, is almost entirely broken away; only the feet of one figure remain. (219.)

No. 299. Fragment of a Greek inscription, very imperfect. (198.)

No. 300. A small bas-relief, imperfect, representing Cybele seated. *Presented, in 1820, by John P. Gandy Deering, Esq.* (103*.)

Nos. 301—309. Fragments of figures, many of which have belonged to the metopes of the Parthenon. (131—134 136—140.)

Nos. 310—315. Fragments of colossal statues, some of which have probably belonged to figures which stood in the pediments of the Parthenon. (261, 264, 267, 270, 272, 271*.)

No. 316. A small statue of a Muse, without a head; it was probably intended to represent Polyhymnia. (208.)

No. 317. A sepulchral column, inscribed with the name of Callimachus, who was a native of the city of Aexone, and the son of Callistratus. (209.)

No. 318. A base of a column brought from the plains of Troy. (210.)

No. 319. Fragment of a figure. (143.)

No. 320. Fragment of No. 327. (141.)

No. 321. The chest of a female figure, covered with drapery; it has probably belonged to one of the metopes of the Parthenon. (79.)

No. 322. Fragment of No. 327. (142.)

No. 323. A fragment of a metope of the Parthenon; it is the torso of one of the Lapithæ. (294.)

No. 324. An oblong shallow vessel for containing holy water. The front is ornamented with a bas-relief representing five figures, one of which, probably Juno, is seated on a throne; of the remaining figures, three females are imploring the benediction of the goddess in behalf of their children, whom they are carrying in their arms, and a fourth is bringing oblations. From Cape Sigeum, near the plain of Troy. (99.)

No. 325. A colossal head, much mutilated; it was found in the temple of Nemesis, at Rhamnus, in Attica, and is supposed to be the head of Nemesis. *Presented, in 1820, by John P. Gandy Deering, Esq.* (273.)

No. 326. The feet of a male statue, on the plinth. *Presented, in 1820, by John P. Gandy Deering, Esq.* (107*.)

No. 327. A torso of a male figure, probably that of Æsculapius. (202, 135, 151.)

No. 328. A sepulchral column to the memory of Callis, who was the daughter of Strato, and a native of the city of Gargettus. (203.)

No. 329. A base of a column, brought from the plains of Troy. (204.)

No. 330. A fragment of a square altar, which has probably been dedicated to Bacchus. The ornaments on two of the sides only have been preserved; these represent female Bacchantes in dancing attitudes. One of the figures holds a shawl or veil in her hands, the other brandishes a thyrsus. (112.)

No. 331. A fragment of a sepulchral stéle; the inscription is very imperfect, but records the name of Musonia. The summit is ornamented with the figure of a butterfly on some fruit. (150.)

No. 332. A fragment of a statue of Hygeia. (125.)

No. 333. A small fragment of a very ancient Greek inscription, written in the *boustrophedon* manner. *Presented, in 1785, by the Dilettanti Society.* (81*.)

No. 334. An imperfect Greek inscription, engraved on three sides of a piece of marble, in very ancient letters. *Presented, in 1785, by the Dilettanti Society.* (87.)

No. 335. A fragment of a bas-relief, with part of an inscription. (126.)

No. 336. A bas-relief, imperfect, inscribed with the names of Aris-

todice, Aristarchus, and Athenais, natives of Sestus. *Presented, in 1785, by the Dilettanti Society.* (236*.)

No. 337. Part of the stem of a candelabrum ornamented with four female figures, one of which is playing on the lyre, and the others, with joined hands, are leading the dance. (124.)

Nos. 338, 339. Fragments of colossal statues. (265, 269.)

No. 340. A part of a colossal foot, probably belonging to a figure in one of the pediments of the Parthenon. (244.)

No. 341. The left knee of a colossal statue of very fine work: it has probably belonged to a figure in one of the pediments of the Parthenon. (256.)

No. 342. Fragment of a statue. (268.)

No. 343. Ditto. (144.)

No. 344. An amphora. (176.)

No. 345. A funeral inscription to the memory of Polyllus; it consists of one line in prose, and two in verse. The line in prose gives us only the name and titles of Polyllus, and the verses intimate that Polystratus had erected a statue to the deceased, and had placed it under the protection of Minerva; the marble on which this inscription is cut formed a part of the base on which the statue stood. (292.)

No. 346. A Greek inscription, relating to the Erythræans: the characters are very ancient. (288.)

No. 347. A fragment of a decree of the Athenians, engraved on a very large piece of marble. So much has been broken away from this inscription, that the precise object of it is not easily collected: it is ordained, however, that the decree shall be fixed up in the Acropolis. (281.)

No. 348. A very ancient Greek inscription, which has served as an epitaph on the tomb of the Athenian warriors killed at Potidæa. This inscription, which originally consisted of twelve elegiac verses, has suffered from the injuries of time. (290.)

No. 349. Fragment of a figure. (145.)

No. 350. Fragment of a Greek inscription, very imperfect. (195.)

No. 351. A sepulchral stèle, with an ornament of flowers on the summit. It is inscribed with the names of Hippocrates and Baucis. (175.)

Nos. 352—360. Casts in plaster of the frieze of the Choragic Monument of Lysicrates, commonly called the Lanthorn of Demosthenes. The subject of this frieze is the story of Bacchus and the Tyrrhenian pirates. (A. 89, 97, 96, 95, 94, 93, 92, 91, 90.)

No. 361. A fragment of a bas-relief, representing an elderly man before one of the gods, probably Bacchus, who appears to hold a vase in his right hand. (84.)

No. 362. A fragment of a decree of the people of Tenos, in honour of some benefactor, whose name is not preserved on the marble. (232.)

No. 363. A fragment of a public act relating to the people of Athens and Myrina. (234.)

No. 364. A fragment of a public act of the Athenians; it consists of twenty-one imperfect lines, and seems to relate to the repair of the pavements and roads in the neighbourhood of Athens. (233.)

No. 365. An architectural fragment, which has formed one of the ornaments of a roof. (243.)

No. 366. A sepulchral Greek inscription in ten verses, of which the first two and the last two are in the elegiac measure, and the rest are hexameters. The inscription is in memory of a young lady of extraordinary beauty, named Tryphera, who died at the early age of 25 years. (152.)

No. 367. An architectural fragment, similar to No. 365. (254.)

No. 368. A Greek inscription relating to Oropus. *Presented, in 1820, by John P. Gandy Deering, Esq.* (106*.)

Nos. 369, 370. Fragments of Greek inscriptions, very imperfect. (191, 196.)

No. 371. A fragment of a bas-relief, representing Minerva placing a crown upon a person's head. (89.)

No. 372. A sepulchral stèle with a Greek inscription, consisting of four lines and a half, part of which is written in prose and part in verse. The inscription informs us that the monument was erected by a mother to the memory of her two sons, Diitrephes and Pericles, the former of whom was a soldier of Parium; and also to the memory of her daughter, whose name was Agnes, and that of her brother, Demophoon, who was a soldier of Parium. (172.)

No. 373. A sepulchral stèle. The bas-relief in front, the lower part of which is broken away, represents two females joining hands, one of whom is seated and veiled, the other standing. Between these appears an old man, clothed in a tunic, and standing in a pensive attitude. (229.)

No. 374. A votive Greek inscription of Antisthenes, the priest of Pandion: he was the son of Antiphates, and belonged to the tribe of Pandionis. (86.)

No. 375. A bas-relief, representing a young man standing between two goddesses, Vesta and Minerva, who are crowning him. (82.)

No. 376. A bas-relief, representing two divinities, namely, Jupiter seated on a throne, and Juno standing before him; the latter is removing the veil from her face, as if to address the king of the gods. (227.)

No. 377. A Greek inscription, imperfect, but of which fifty-five lines remain. It is written in the Bœotian Æolic dialect, and is a treaty between the cities of Orchomenus in Bœotia and Elatæa in Phocis, respecting some payments due from the Orchomenians to the Elatæans. These payments were for the rent of certain pastures which the people of Elatæa had let out to the Orchomenians. The treaty confirms the payment of the stipulated sums, and renews the treaty of pasturage for four years. (177.)

No. 378. A Greek inscription, engraved on two sides of a tablet of marble. It is a decree of the council of the Bœotians, ordaining the election of three extraordinary magistrates, who, in concert with the ordinary magistrates, were to take charge of the re-casting of some articles of gold and silver, belonging to the temple of Amphiarus, and which had been injured by the effects of time. (302.)

No. 379. A Greek inscription, imperfect, engraved in very ancient characters: it seems to be an inventory of some treasures, probably those contained in the Parthenon, and which the Quæstors acknowledge to have received from their predecessors in the same office. The inscrip-

tion not only fills one side of the marble, but also the right edge. (200.)

No. 380. A fragment of a bas-relief, representing three figures sacrificing before an altar. (101.)

No. 381. A Greek inscription in the Doric dialect; it is a dedication to Bacchus, by Alexas the son of Nicon, and Cephisodorus the son of Aglaophædas, who had both been victorious in the choruses of men. (83.)

No. 382. Fragment of a Greek inscription, very imperfect. (186.)

No. 383. A bas-relief, imperfect; it represents three goddesses, one of whom is seated on a throne. (108.)

No. 384. A sepulchral stèle, in which an equestrian figure, with an attendant on foot, is represented in bas-relief. Above the figures is an inscription, consisting of three verses, of which the second is a pentameter, and the two others hexameters; they record the name of the deceased, Aristocles, who was the son of Menon, and a native of Piræus. (213.)

Nos. 385, 386. Fragments of Greek inscriptions, very imperfect. (194, 181.)

EGYPTIAN SALOON*.

No. 1. A lion couchant; the mane inscribed in front with a name not yet decyphered; the base is also inscribed with hieroglyphics, in which appears the name of Amenoph III. (Memnon). From Mount Barkal. *Red granite. Presented by Lord Prudhoe, 1835.*

No. 2. A sarcophagus, in form of a mummy case, with five rows of hieroglyphics down the front; the face has been gilt. *Arragonite. From Mr. Sams' collection.*

No. 3. Sarcophagus. On the upper part are Netpe, the four genii of the Amenti, and Isis. Beneath, at the sides, the deceased offers to various deities. At the head is a peculiar scene relative to the Sun, and at the feet, a bark with disk, in which is a scarabæus, &c. The inscription with which it is covered refers to a sacerdotal functionary "priest of the temples of the quarter of the white wall," or Acropolis of Memphis. From the side excavation of Campbell's tomb, Gizeh. *Red granite. Presented by Col. Howard Vyse, 1839.*

No. 4. Colossal head. *Brownish breccia. From Mr. Salt's collection.*

No. 5. A group, representing King Horus, of the 18th dynasty, standing under the protection of the Deity Ammon Ra the generator. *Dark granite.*

No. 6. A colossal head. *Brownish breccia. From Mr. Salt's collection.*

No. 7. † A colossal ram's head, which has formed part of a sphinx. *Sandstone.*

No. 8. Statue of the god Hapimooou, or the Nile, bearing an altar of libations; inscribed with dedicatory inscriptions relative to Shishak

* The articles contained in this Room, to which this mark (†) is prefixed in this catalogue, were collected by the French in different parts of Egypt, and came into the possession of the English army in consequence of the capitulation of Alexandria, in the month of September, 1801. They were brought to England in February, 1802, under the care of General Turner, and were sent, by order of HIS MAJESTY, KING GEORGE THE THIRD, to the British Museum.

or Sheshonk, king of the 22d dynasty. *Sandstone. From Mr. Salt's collection.*

No. 9. † A colossal fist of very considerable magnitude, found in the ruins of Memphis. *Red granite.*

No. 10. † A large sarcophagus, brought from the mosque of Saint Athanasius, at Alexandria. It is covered with hieroglyphics both within and without. *Breccia.*

Under No. 10. A sandstone altar. *Presented by W. R. Hamilton, Esq., 1838.*

No. 11. A figure of a hawk-headed sphinx, found by Belzoni, in the temple of Ibsamboul. *Sandstone. From Mr. Salt's collection.*

No. 12. A monument, found in the palace at Carnak, with six figures, in high relief, of Thothmes III. (Mœris), Month-ra, and Athor, holding each other's hands. *Syenite. (Red granite.) From Mr. Salt's collection.*

No. 13. Similar to No. 11, but part of the head has been broken off; found at the same place. *From Mr. Salt's collection.*

No. 14. The lower part of a statue, similar to No. 21, of Amenoph III. (Memnon). *Dark granite.*

No. 15. A colossal head, from Carnak, found by Belzoni, in 1818. *Syenite. From Mr. Salt's collection.*

No. 16. The lower part of a statue of Bubastis, bearing the name of Amenoph III. (Memnon.)

No. 17. A coffin. Two perpendicular lines of hieroglyphics inscribed down the body. They are dedications to Osiris and Pthah for Seveksi, a deceased sacerdotal functionary. It is in shape of a mummy, and in the hands are symbols resembling those of life and stability. *Basalt.*

No. 18. A coffin, in the shape of a mummy; on it, Netpe, Nephthys, and Isis, and hieroglyphics relating to an athlophorus. *Red granite.*

No. 19. The head and upper part of a statue of Rameses the Great, brought from the ruins of the Memnonium, a building dedicated to Memnon, at Thebes. This fragment is composed of one piece of granite of two colours, and the face, which is in remarkably fine preservation, is executed in a very admirable manner. *Presented, in 1817, by Henry Salt, Esq., and the late Louis Burchhardt, Esq.*

No. 20. Part of the frieze of a temple. It is covered with hieroglyphics on both sides, containing the name of Psammetichus II. The upper part of this frieze consists, on one side, of a row of serpents, on the other, of a row of birds. *Basalt. Presented, in 1766, by HIS MAJESTY KING GEORGE III.*

No. 21. A colossal statue of Amenoph III. (Memnon) sitting. His hands are extended flat upon the thighs: the front and back of the throne are decorated with hieroglyphics. Found, in 1818, in an excavation in the Temple of Memnon. *Dark granite. From Mr. Salt's collection.*

No. 22. Part of the frieze of a temple. It is covered with hieroglyphics on both sides, containing the name of Nectanebo, the last of the Pharaohs. The upper part of the front of this frieze consisted of a row of birds, the legs of which are all that now remain. *Green basalt. Presented, in 1766, by HIS MAJESTY KING GEORGE III.*

No. 23. † A large sarcophagus, covered with hieroglyphics inside and outside. This sarcophagus, which was brought from Grand Cairo, was used by the Turks as a cistern, which they called "The Lovers' Fountain." *Black granite.*

No. 24. † The Rosetta stone, containing three inscriptions of the same import, namely, one in hieroglyphics, another in the ancient vernacular language of Egypt, and another in the Greek language. These inscriptions record the services which Ptolemy the Fifth had rendered his country, and were engraved by order of the High Priests, when they were assembled at Memphis, for the purpose of investing him with the royal prerogative. This stone was found near Rosetta.

No. 25. † A figure, the size of life, kneeling on a square plinth, round which is a border of hieroglyphics: the head and arms of the figure are wanting. *Dark granite.*

No. 26. A seated figure of Ousirée Menephtha III., bearing on his knees the figure of a ram's head; in a hard white stone. Hieroglyphics on the shoulders of the figure, on the sides of the seat, and round the pedestal. On his feet are sandals. *From Mr. Salt's collection.*

No. 27. A mutilated figure of Rameses II. (Sesostris) kneeling, and supporting with both hands an altar, dedicated to the deity Thore, on which is placed a scarabæus. *Dark granite. Presented, in 1805, by Earl Spencer.*

No. 28. A circular vessel; one handle is decorated with the head of Isis, the other handle and the edge are inscribed with hieroglyphics. *Sandstone.*

No. 29. A group of a male and female seated. The front of the statues and sides of the chair are inscribed with hieroglyphics. *Calcareous stone.*

No. 30. A colossal head. *Calcareous stone. From Mr. Salt's collection.*

No. 31. A group of two figures seated with a smaller one between them: found in a tomb, and probably represents the man, his wife, and child, who were buried therein. The sides of the seat, the ground about their feet, and a stripe down the front of their lower garments are decorated with hieroglyphics, with the name of Amenoph II. The heads and upper parts of the bodies of the figures have been covered with a thick coat of paint, part of which still remains. *Sandstone. From Mr. Salt's collection.*

No. 32. A sarcophagus of grey stone, with its cover; of the Queen of Amasis, king of the 26th dynasty. The entire sarcophagus, inside and outside, is covered with sculptures and hieroglyphics. It was discovered at the bottom of an excavation 130 feet deep, behind the palace of Sesostris, near Thebes.

No. 33. A sarcophagus, in form of a mummy, decorated with the four deities of the Amenti, and three rows of hieroglyphics down the front. On the feet, two jackals. *Green basalt.*

No. 34. A lion couchant; the mane inscribed with hieroglyphics, as is also the pedestal, which bears the name of Amenoph III. (Memnon). On the left fore-paw is another royal name not yet ascertained, and apparently of different work. From Mount Barkal. *Syenite. Presented by Lord Prudhoe, 1835.*

No. 35. A painted statue, found in a sepulchre near the Pyramids. *Presented, in 1817, by Captain Caviglia.*

At each side of the door on the left, a statue of Bubastis. *Black granite.*

No. 36. Group of a male and female figure seated on a high-backed chair. *Calcareous stone.*

No. 37. A large statue of Bubastis sitting in a kind of chair, and resting the arms upon the thighs. In the left hand is the emblem of life; the disk which was once upon the head has been broken off. It is inscribed with the name of Amenoph III. (Memnon). *Black granite.*

No. 38. A statue of a baboon, the pedestal inscribed with the name of Amenoph III. (Memnon). *Sandstone.*

No. 39. A stone sarcophagus, discovered in a tomb at Thebes; the paintings with which it is ornamented have been restored. *Calcareous stone. Presented, in 1820, by the Earl of Belmore.*

No. 40. A baboon, of sandstone. From Ibsamboul.

No. 41. A statue of Bubastis standing, with the head of a lioness, on which was the disk of the moon and the erect serpent's head; she holds the lotus before her in her left hand, the emblem of life in her right. *Black granite. From Mr. Salt's collection.*

No. 42. The lower part of a figure kneeling on a square plinth, round which is a border of hieroglyphics, containing the name of Rameses the Great. Found at Abydos. *Black basalt. Presented, in 1812, by His Royal Highness the Duke of York.*

No. 43. The sacred boat, bearing a group, of which a fragment only remains, of a vulture overshadowing the statue of a female. It is inscribed in several places with the name of *Mautemwa*, the mother of Amenoph III. (Memnon.) *Black granite.*

Beneath, is a casing stone, from the Great Pyramid. *Calcareous stone. Presented by Col. Howard Vyse, 1838.*

No. 44. The upper part of a statue of a king, having on his belt the prenomen of Osortasen I. or Nectanebo. *Gray granite. Presented by Col. Howard Vyse, 1838.*

No. 45. Similar to No. 41, but the disk is nearly perfect. *From Mr. Salt's collection.*

No. 46. A figure, the size of life, of a royal scribe, seated upon the ground, and resting his arms upon his knees; the left arm has been broken off. Ears of corn are in his left hand; round his neck is suspended a tablet inscribed, in hieroglyphics, with the name and titles of Rameses (Sesostris). In front a tablet inscribed with hieroglyphics, including the same name and titles. Hieroglyphics also appear upon the arm, and behind this figure.

No. 47. A mummy-shaped sarcophagus. *White stone.*

No. 48. A male statue, seated upon a pedestal, his arms crossed upon his knees, which are almost as high as his chin. The front of the figure and pedestal are covered with an hieroglyphical inscription. *Black basalt. From Mr. Salt's collection.*

No. 49. Similar to No. 41. *From Mr. Salt's collection.*

No. 50. The upper half of a standing statue of Bubastis, similar to No. 41.

No. 51. A statue of a Prince, swathed, seated; covered with hieroglyphics, among which is the name of Thothmes III. and the obliterated cartouche of his sister. *Calcareous stone.*

A kneeling statue of a royal scribe. He holds a shrine containing

the figures of Isis, Osiris, and Horus. On his shoulders and lap appears the name of Rameses (Sesostris). *Calcareous stone.*

A statue of a person kneeling and holding before him a tablet, containing a formula of prayer to Ra. *Calcareous stone.*

On the ground behind;

The fragment of a figure seated upon a plinth, with the legs turned inward, and lying one upon the other. The plinth and portions of the dress are covered with hieroglyphics. *Dark granite.*

A portion of an altar, similar to that represented on No. 8. *Dark basalt.*

A fragment which was found at the foot of Pompey's Pillar, and is partly covered with hieroglyphics, whereon appears the name of Rameses. *Sandstone.*

A mutilated fragment of a statue. *Dark granite.*

A colossal fist. *Presented, in 1805, by Earl Spencer.*

No. 52. A bust broken from a seated Bubastis.

No. 53. Similar to No. 41. *From Mr. Salt's collection.*

No. 54. *Blank.*

No. 55. A colossal arm, belonging to the same statue as the head No. 15. *Syenite. From Mr. Salt's collection.*

Under No. 55. Casing stones from the great Pyramid. *Calcareous stone. Presented by Col. Howard Vyse, 1838.*

No. 56. *Blank.*

No. 57. A seated statue of Bubastis, similar to No. 37. A portion of the disk upon the head has been broken off. It bears the name of Amenoph III. (Memnon). *Black granite.*

No. 58. A bust broken from a seated statue of Bubastis. *Black granite.*

No. 59. † A fragment of a porphyry column.

Upon it is placed

A colossal hawk. *Arragonite. Presented, in 1805, by Mr. T. Philipe.*

No. 60. A seated statue of Bubastis. *From Belzoni's collection.* Behind it, a bust broken from another similar statue. *Black granite.*

No. 61. A statue of Menephtah II. On his breast is inscribed his own name; on his shoulder, that of his father, Rameses II. or III. (Sesostris). *Red granite.*

In front of the pedestal is a group of four seated statues, two male and two female; a stripe of hieroglyphics decorates the front of each dress. The heads have all been broken off. *Black basalt.*

Behind No. 61. The representation of an entrance to a tomb. From the neighbourhood of the Pyramids.

No. 62. A seated statue of Bubastis, similar to No. 37. but without any name inscribed. The disk upon this figure is entire. *Dark granite. From Mr. Salt's collection.*

No. 63. Another seated statue of Bubastis, but of superior workmanship, and with the name of Shishak inscribed in front of the chair. The disk is sculptured upon a separate stone. *From Mr. Salt's collection.*

No. 64. A column, in four pieces: it has six rows of shields containing names. The upper and lower rows have the name of Rameses XII., the four other rows consist of the name Menephtah II.;

but the upper of these is interrupted by a square tablet, which contains the name of Amenoph III. (Memnon). The square slab at the top has the names of Amenoph III. and Rameses XII. *Gray granite.*
From Mr. Salt's collection.

Behind No. 64. The entrance to a tomb. Similar to that behind No. 61.

No. 65. A seated statue of Bubastis. *From Belzoni's collection.*

No. 66. † A fragment of a large sarcophagus, similar in its structure to Nos. 10 and 23.

Within No. 66. A trough, with hieroglyphics, among which appears the royal name of Rameses the Great. At one end is the figure of an old man seated. *Dark granite.* *From Mr. Salt's collection.*

No. 67. A fragment of the plaited beard of the Great Sphinx. *Calcareous stone.* *Presented, in 1817, by Captain Caviglia.*

No. 68. A seated figure of Bubastis, similar to No. 37. It is inscribed with the name of Amenoph III. (Memnon).

No. 69. The upper half of an erect statue of Bubastis.

Behind No. 69, is a fragment of a statue of a king seated. *Gray granite.*

No. 70. A seated male statue, holding in front of his knees a small standing figure, inscribed with the same royal name (Amyrtæus) as the Alexandrian sarcophagus, No. 10.

On one side of No. 70, is a statue of a person seated, holding in his left hand a hoe, or pickaxe; on his left knee are some hieroglyphics, sculptured in relief. From the vicinity of the Pyramids. *Syenite.*

On the other side of No. 70, is a statue of Ptolemy, prince of Æthiopia, holding an altar, inscribed with hieroglyphics, and having on it a ram's head. The back and plinth have also hieroglyphics, among which appears the name of Rameses the Great.

No. 71. The upper half of an erect statue of Bubastis.

Behind No. 71, is a fragment of two seated figures. The back of the chair is covered with hieroglyphics, and on a transverse belt are the titles of Rameses V. or IX., of the 19th dynasty. *Syenite.*

No. 72. A standing figure of Bubastis, similar to No. 41. *Dark granite.*

No. 73. A bust broken from a statue of Bubastis.

No. 74. An Egyptian scarabæus, or beetle, brought from Constantinople: it was part of the Elgin collection. *Dark granite.*

No. 75. Fragment of a statue, inscribed with the royal name of Horus of the 18th dynasty. *Gray granite.*

No. 76. An erect figure of Bubastis, similar to No. 41.

No. 77. A bust broken from a sitting figure of Bubastis. *Dark granite.*

No. 78. The cover of a mummy-shaped sarcophagus of a prince of Ethiopia, covered with sculptures and hieroglyphics. *Red granite.*

Underneath are

Feet broken from a statue of Bubastis.

A fragment of a colossal head. *Granite.*

No. 79. A bust broken from a sitting statue of Bubastis. *Dark granite.*

No. 80. An erect statue of Bubastis, similar to No. 41.

No. 81. A figure of a priest of Ammon, the size of life. He is represented sitting on the ground, and resting his arms upon his knees.

An ear of corn is held in the left hand, and in front of the figure is the head of Athor (surmounted by a shrine?) which has formed the top of a sceptre. *Gray granite.*

No. 82. A head of a sphinx, of Roman work. *Green basalt.* From the collection of Charles Towneley, Esq.

No. 82*. A much mutilated seated statue of a military chief, the sides of the seat inscribed with hieroglyphics. *Black basalt.*

No. 83. A fragment of a kneeling statue, holding a shrine containing a figure of Osiris, and inscribed with hieroglyphics, wherein appears the name of Pharaoh Hophrah.

No. 84. An erect statue of Bubastis, similar to No. 41.

No. 85. A bust broken from a seated statue of Bubastis.

No. 86. † A sarcophagus, slightly resembling in its form the human figure. It has a single border of hieroglyphics round the outside, bearing the royal name of Amasis. *Black basalt.*

On No. 86 are placed

A sepulchral shrine, the front covered with hieroglyphics.

A fragment of a pyramid, decorated with sculptures and hieroglyphics. *Calcareous stone.* Presented by Sir J. Gardner Wilkinson, 1834.

A fragment of a shrine, decorated on all sides with hieroglyphics: it has contained in front at least four figures, holding each other's hands.

A shrine covered with sculptures and hieroglyphics, containing a figure of a chieftain holding a staff or sceptre, the top of which consists of a head of Isis surmounted by a plume.

A fragment of a pyramid bearing the name of the king Enantef-Naa. *Calcareous stone.*

No. 87. A bust broken from a seated figure of Bubastis.

No. 88. A seated statue of Bubastis, similar to No. 37. The front of the chair is inscribed with the name of Amenoph III. (Memnon).

No. 89. Fragment of legs, broken from an erect statue of Bubastis; the pedestal inscribed with the name of Amenoph III. (Memnon).

No. 90. A bas-relief of a figure, a close garment enclosing the body down to the feet, excepting the right shoulder and arm; the hands are crossed in front of the body; the head has been broken off. This seems to have formed the cover of a sarcophagus. *Presented by the Lords of the Admiralty.*

No. 91. A fragment of legs, similar to No. 89.

No. 92. A statue of a priest, holding a shrine containing the figure of the deity, Chons or Khons, remarkable for the long lock of hair over his right ear, the rest of the head having been close shaven. *White stone.*

No. 93. Bust of a queen, from a colossal statue. In front is an altar of libation, dedicated by a Pharaoh to Osiris. *White stone.*

No. 94. The lower part of an erect statue of Bubastis.

No. 95. A votive column, on which is an inscription in Greek to the great God Serapis at Canopus. It was brought from Aboukir. *Presented, in 1807, by Dr. Bancroft, Jun.*

No. 96. The upper part of a statue of Rameses the Great, holding a tablet with offerings, under which is a vase. Found near Abydos. *Calcareous stone.*

In front is a tablet, in form of a propylon, covered with sculptures

and hieroglyphics, and bearing the names of kings Osirtesen and his successor. *Calcareous stone.*

No. 97. *Blank.*

No. 98. Thirteen sepulchral vases, surmounted by heads of some of the four genii of Amenti (or the lower regions). Among them are two complete sets of four each, as they were generally placed in the tombs. All from Thebes. *Presented by J. Gardner Wilkinson, Esq., 1834.*

Nos. 99, 100. Tablets executed prior to or at the commencement of the 16th dynasty.

Nos. 101, 102. Various objects in basalt; among them,

A small figure, with a beard, a short apron, and a terrific aspect. He is standing upright, holding his arms downwards a little apart from the body. The ornament upon the head is peculiar to the representation of this figure. *From the collection of Charles Towneley, Esq.*

A monument, in which are sunk two square tablets, one of which is left blank, and on the other are represented two female figures standing side by side. These tablets are surrounded by hieroglyphics. *From the collection of Sir Hans Sloane.*

A small headless figure of a priest of Ammon, seated on the ground, and resting his arms upon his knees. An ear of corn is held in the left hand, and in front of the figure is the head of Isis on the top of a sceptre. *Presented, in 1767, by the Earl of Bute.*

A kneeling figure, holding a statue of a baboon seated on a pedestal, inscribed with the name of Hophrah. The back and pedestal of the figure are inscribed with hieroglyphics, and the same (?) name.

A kneeling figure, holding in front a head of Isis.

A figure seated on the ground, resting one arm upon the knees, the right raised towards the mouth; the head of Isis on a sceptre in front; hieroglyphics upon the sides.

No. 103. Tablets executed prior to, and at the commencement of the 16th dynasty. *Calcareous stone.*

No. 104. A small monolith naos, two disked uræi, and monuments in the shape of altars. *Calcareous stone.*

Nos. 105, 106. Tablets, probably executed during the 16th dynasty.

No. 107. Tablets executed during the 17th dynasty.

No. 108. Miscellaneous objects.

Nos. 109—113. Tablets executed during the 18th dynasty.

No. 114. The side of a tomb, two terracotta covers of coffins, and a bas-relief, consisting of a double range of figures. The upper range is imperfect, half of the figures having been sculptured upon another stone. The lower range represents some priests armed with knives, with which they are sacrificing bulls. It was found near Sakkara, four leagues from Grand Cairo. *Presented, in 1767, by the Earl of Bute.*

No. 115. Tablets executed during the 18th dynasty.

No. 116. Seven objects. *Presented, in 1817, by Captain Cavaglia, viz. :*

A small hawk of very coarse work, found in front of the Great Sphinx. *Calcareous stone.*

A Greek inscription erected in front of the Great Sphinx, by Marcus Aurelius and Lucius Verus. *Calcareous stone.*

A small lion, found in a temple between the paws of the Great Sphinx. *Calcareous stone.*

A tablet of hieroglyphics, dated in the first year of the king Rameses, found in front of the Great Sphinx.

A lion very rudely sculptured; it is supposed to have stood on one of the walls between the paws of the Great Sphinx.

The impression of a human foot carved in stone, with the letters NEKΦΘ engraved over it. Found in front of the Great Sphinx. *Calcareous stone.*

One of the horns of an altar which was found in front of the Great Sphinx. *Calcareous stone.*

Nos. 117, 118. The tablet of Abydos, containing the succession of the Egyptian monarchy. In the second horizontal line are the cartouches of the kings of the 17th and 18th dynasty.

Nos. 119, 120. Fragments from the sides of tombs, &c. *Calcareous and sandstone.*

No. 121. Tablets executed during the 18th and successive dynasties.

No. 122, 123. Tablets executed under the Ptolemies.

No. 124. Tablets executed under the Romans, one with the name of Tiberius: Christian Greek, and Coptic inscriptions.

Under the shelves round the room are various tablets, &c., affixed to the walls (Nos. 125—194); among them the following articles are worthy of particular notice.

No. 133. A small figure kneeling upon a square plinth, and supporting a naos, in front of which is a figure of Neith. The plinth and front of the altar are covered with hieroglyphics, among which appears the royal name of Amasis. *Presented, in 1771, by Matthew Duane, Esq.* It is placed upon

An oblong stone, with a shallow excavation in the centre. The top and sides are adorned with hieroglyphics. It was perhaps intended for a pedestal. *Black granite. From Mr. Salt's collection.*

No. 135. A large square tablet, covered with hieroglyphics. It appears to have been used as a mill-stone for grinding corn. *Basalt. Presented, in 1805, by Earl Spencer.*

No. 137. The capital of a column. *Presented, in 1805, by Earl Spencer.*

Upon it, † a small mutilated figure, kneeling on a broken square plinth, the front and back inscribed with hieroglyphics.

No. 140. A large head, broken from a mummy-shaped sarcophagus. *Gray granite.*

No. 145. A fragment covered with hieroglyphics. *Presented, in 1805, by Earl Spencer.*

Nos. 169—171; 173—177; 179—181 are fresco paintings, chiefly illustrative of the domestic habits of the Egyptians. No. 175. *presented by Sir H. Ellis, 1834.*

Under No. 168. A head, of white stone.

Under No. 169. A torso, of marble; the back of the chair inscribed with hieroglyphics.

Under No. 170. Fragments of sandstone, with hieroglyphics.

Under No. 171. A fragment of a statue holding a staff or sceptre ornamented at the top with a head of Isis.

Under No. 173. The upper half of a seated statue. *White stone. From Mr. Sams' collection.*

Under No. 174. A bust broken from a statue. *Gray granite.*

Under No. 175. A mutilated statue of Thothmes III. *Black basalt. From Mr. Sams' collection.*

Under No. 176. Fragment of a bas-relief representing a group, resembling No. 5.

A small statue of Amounemhe, an officer of state, seated on a throne. *Basalt.*

Under No. 177. The fragment of a statue, holding a tablet decorated with sculptures and hieroglyphics, wherein appears the name of Amenoph III. (Memnon). *Arragonite.*

Under No. 179. A sphinx, represented, according to the custom of the Egyptians, without wings. Found in the excavation made in front of the Great Sphinx. *Calcareous stone. Presented, in 1817, by Captain Caviglia.*

Under No. 180. The head of the uræus which decorated that of the Great Sphinx. *Calcareous stone.*

Under No. 181. A sphinx, like the one described above. *Calcareous stone. Presented, in 1767, by the Earl of Bute.*

In the vestibule on the right hand, at the end of the Egyptian Saloon, are—

A cast of the head of the fallen colossus of Rameses III. or the Great, at Metrahenny, near Gizeh.

† Two obelisks erected by the monarch, supposed to be Amyrtæus, in honour of the god Thoth. From Cairo. *Basalt. Presented, in 1776, by King George III.*

And on the northern wall several sepulchral tablets executed under the 16th, 17th, and 18th dynasties, some dated in the regnal years of the monarchs when the decease took place. *Calcareous stone.*

EGYPTIAN ROOM.

UP STAIRS.

The wooden figures in Cases A. and B. are generally found in tombs; the bronze are offerings, or objects of private worship; the porcelain and small figures of stone are all perforated, to attach to the network or the necklaces of mummies.

CASE A. DEITIES.

Div. I. Amoun-ra seated upon a throne, oskh round the neck, shenti round the loins with a feathered garment. On the side of the throne are cynocephali, uræus and lotus sceptres, and at the back Amoun seated between Khons Ioh and another deity. Round the lower plinth is a dedication to Amoun-ra. The head is from another statue, and the plumes are wanting. *Sandstone. 7¼ in. h.*

Osiris-Amoun, an old bearded human figure, in Osirian dress, seated on a plinth, the knees raised; on his head a modius; both hands hold some object. Round the base a double dedication to Osiris, and Osiris-Amoun; a hollow behind has held a papyrus. *Wood. 1 ft. 1 in. h. Tombs of the Kings at Thebes.*

Small figure of Phtah, holding a graduated gom by both hands, and standing on a plinth, also graduated in front. *Steatite. 7½ in. h.*

Phtah, or Phtha, the Egyptian Vulcan, standing, in Osirian dress, his head shorn, round his neck an ôskh; both hands hold a gom. *Wood. 5½ in. h.*

The upper part of a male figure, probably a deity, walking. *Arragonite*.

Figures of Osiris? on the head the shaa; face, green wax. *Barley covered with linen*. 1 ft. 1 in. h. *One of them presented by J. G. Wilkinson, Esq., 1834.*

Sévék, Sabak, or Souk, a form of Seb, the Egyptian Saturn, crocodile-headed, walking, wearing the shenti; black, with yellow stripes. *Wood*. 6 in. h.

Thmei or Meï, the goddess of truth, the Egyptian Themis, seated in a close garment; the distinctive mark, the feather on the head, is wanting. *Vitrified composition*. $4\frac{3}{4}$ in. h.

Onouris, the Egyptian Mars, a form of Khons: holds an oval buckler and sword. *Terracotta*. 1 ft. 4 in. h.

Div. 2. Khons as Kneph, or Phtha; Silenus-faced, dwarfish naked body, bowed legs, crowned with the plume, clothed in lion's skin. *Bronze*. 2 in. h.

Khons as Kneph, standing, holding with both hands an unknown object. *Bronze*. $3\frac{1}{2}$ in. h.

Khons as Kneph, standing on a lotus flower, between two sphinxes. *Bronze*. $2\frac{5}{8}$ in. h.

Khons as Kneph, winged; terminating below in a lion's foot. *Bronze*. $1\frac{3}{4}$ in. h.

Amoun-ra, the Egyptian Jupiter, walking; human form, bearded, wearing the teshr surmounted by the plume and disk; in his right hand ♀; in his left the gom. The dress and plume have been plated with gold, part of which still remains. *Silver*. $8\frac{1}{2}$ in. h. *Thebes*.

Three other figures of Amoun-ra: the eyes of one inlaid with silver; the plume of another with enamel. *Bronze*. $8\frac{3}{8}$ - $3\frac{1}{2}$ in. h.

Amoun-ra, seated. *Bronze*. $11\frac{1}{2}$ in. h.

Amoun-ra, walking. *Bronze*. 2 in. h.

Amoun-ra, walking, holding in his right hand the emblem of victory. *Bronze*. 6 to $4\frac{3}{4}$ in. h.

A small naos; in the interior is a seated figure of Amoun-ra; on the architrave and frieze of the door two winged globes, personifications of the Hat or good demon; the cornice is formed of disked uræi. At the lintels of the door are two disked uræi coiled vertically. The sides and back represent in bas-relief Chnouph ram-headed, one of the forms of Amoun-ra, and Khons seated between winged female deities. At the sides of these scenes are vertical lines of hieroglyphics, much erased, but containing the name and titles of Siphtah. On the base is inscribed in large symbols in bas-relief, "the abode of Amon." Above is a ring to carry the naos by. It may have been used as a stamp. *Bronze*. $4\frac{1}{2}$ in. h.; base, $2\frac{1}{4}$ in. b., 2 in. l.

Maut, seated, wearing the pschent; suckling; wants the figure of young Khons. *Bronze*. 1 ft. 2 in. h.

Neith, the Egyptian Minerva, seated on a throne; wearing the teshr. *Bronze*. $4\frac{7}{8}$ in. h.

Neith, walking. *Bronze*.

Ægis of Neith, consisting of her head and the ôskh. *Bronze*. $4\frac{3}{8}$ in. h.

Kneph, Chnouphis, the ram-headed divinity, walking, wearing an of, and holding the emblem of victory. *Bronze*. 7 in. h.

Aëgis of Chnouphis, consisting of his head and the ôskh. *Bronze.* 4 in. h.

Sate, the Egyptian Juno, seated, wearing the Shaa, between two horns, surmounted by a disk and another ornament; this figure has held a lotus-sceptre and ♀. *Bronze.* 6 $\frac{3}{8}$ in. h. *Thebes.*

Amoun-ra, Harsaphes, the Pan of the Egyptians, on a double pedestal; he stands upon nine bows, symbolic of the Ethiopians; before his feet the name of the queen of Amasis; the eyes, whip, &c., richly inlaid; on the upper pedestal the cartouche of Amoun-ra, between two winged uræi; at the side, a deity bearing offerings, two phœnixes, ♀s, goms, &c., preceded on one side by three jackal-headed, and on the other by three hawk-headed figures; upon the back of the pedestal Horus, on the symbol usual on the sides of thrones, between two female deities, by whom he is saluted. The lower pedestal has on its upper surface four horizontal lines of hieroglyphics; an invocation to Amoun-ra, for Har-ge, the scribe, officer of the queen. In front Meui elevating the boat of the sun, saluted by cynocephali and the female deities attached to the upper and lower region; the symbol of which, at the back, is corded up by Har-hat and Thoth; at each side is a procession of four forms of Hapi-moou, each uttering an address, as "we give you all life and power, offerings, incense, flowers." *Bronze.*

Two similar figures, without pedestals. 6 to 8 in. h.

Chons, Khons, or Khonsou, the Egyptian Hercules, in Osirian dress, with the lunar disk and mystic lock of hair, holding the gom, whip, and crook. *Bronze.* 2 $\frac{1}{4}$ in. h.

Khons-ioh, seated, hawk-headed, crowned with the lunar disk. *Gold.* $\frac{11}{16}$ in. h.

Phtah, or Phtha, holding the graduated gom. *Bronze.* From 1 to 7 $\frac{1}{4}$ in. h.

Phtah-Sochari, bifrons, pantheic, standing upon two crocodiles; the anterior head, a jackal's disked, the other a ram's disked, with uræus. The form dwarfish, naked, bow-legged; the right hand holds a whip; the left, an unknown object; the back formed by the body and tail of a hawk. *Bronze.* 3 in. h.

Athor, Athyr, or Hathor, the Egyptian Venus; her head overshadowed by a vulture supporting the disk and horns; on the breast the ôskh. The body is composed of a shrine, placed upon a wheel of eight spokes, containing a figure of Athor standing, holding a gom and ♀; on a plinth in front, "Athor, mistress of the heaven." This bronze apparently represents the Egyptian profile of an aëgis. *Bronze.* 7 in. h.

Athor, cow-headed; on her head the disk, horns and plumes. 1 $\frac{5}{8}$ in. h. *Gold.*

Ra, or Re, the sun, superior form of Month-ra and Horus; hawk-headed, in Osirian dress, seated with the knees raised, holding with both hands upon his chest a ♀. The uræated disk broken off. *Bronze.* 4 $\frac{1}{4}$ in. h. *Thebes.*

Ra seated, with the knees raised, holding a lotus sceptre. *Bronze* 4 in. h.

Month-ra, hawk-headed, wearing a disk and two tall plumes; the collar and eyes of one of the figures inlaid with gold. *Bronze.* From 7 $\frac{1}{2}$ to 10 in. h.

Month-ra, walking, on a double pedestal; round the first pedestal, "Month-ra, the giver of life, lord of the land of purity," &c. *Bronze*. $7\frac{1}{2}$ in. h.

Nofre-Thmou, or Athmou Athom, human form, walking, wearing the shenti; on his head the lotus flower, whence issue two tall plumes. Another, of the Ptolemaic period. *Bronze*. 7 in. h.

Imothph, seated, human form, shorn head, wears the shenti; unfolds a roll of papyrus. Around the base of one is, "Imophth, the giver of life," &c. *Bronze*. From $5\frac{7}{8}$ to 3 in. h.

Imothph, or Imouth, walking, holding in his left hand ☿; in his right a gom. *Bronze*. $5\frac{1}{3}$ in. h.

Thôout, or Thoth, the Egyptian Mercury, walking; ibis-headed, decorated with the otf. *Bronze*. $6\frac{1}{2}$ in. h.

Ioh, or Ooh-Thoth, standing on a pedestal, holding before him, on a basket, the symbolic eye, emblem of the moon. The head attire wanting. *Bronze*. $4\frac{1}{4}$ in. h.

Ioh, or Ooh-Thoth, lunar mercury, ibis-headed, decorated with the disk of the moon; seated. *Bronze*. $4\frac{1}{2}$ in. h.

Thoth, ibis-headed, and Har-si-esi, hawk-headed, standing face to face. Each holds a vase of libation pouring an united stream of water on the earth. *Bronze*. 2 in. h.

Thoth, human form, walking, his head surmounted by the head and neck of an ibis and the disk of the moon, crowned with an otf. *Bronze*. $3\frac{1}{4}$ in. h.

Thmèi, the Egyptian Themis, seated on a pedestal; the sides have been inlaid; her head bound by a fillet surmounted by a feather. *Bronze*. $4\frac{3}{8}$ in. h.

Div. 3. Khons as Kneph, &c., (vide A. 2.) *Wood, blue and blueish green porcelain, steatite, glass, &c.*

The same divinity quadrifrons, bifrons, &c. *Blue porcelain*. From 4 in. to $\frac{5}{8}$ in. h.

Heads of Khons as Kneph, &c. *Blue porcelain*.

Ægis of the same, and square amulet, representing the same in relief; Reverse, two crocodiles in intaglio. 4 to $\frac{7}{8}$ in. h.

Small tablet, representing Khons as Kneph, &c., in relief. The ornament on the head resembles a modius. *Red composition*. $1\frac{1}{5}$ in. h.

Amoun-ra seated on a throne with feathered ornaments; the plinth behind, which is in the shape of an obelisk, is inscribed with the invocation of Amoun-ra, and upon the base is an inscription apparently containing the names and titles of the same deity. *Vitrified earth*. $3\frac{5}{8}$ in. h.

Amoun-ra seated. *Green porcelain*. $1\frac{7}{8}$ in. h.

Triad of Amoun, Maut, and Khons. On the back, name and titles of Amoun. *Blue porcelain*.

Maut walking; on the plinth, behind, "Maut, the great mother." Her head attire composed of pendent uræi. *Green porcelain*. $2\frac{7}{8}$ in. h.

Ægis of Maut. *White porcelain*. 1 in. h.

Neith walking. *Lapis lazuli*. From 1 to $1\frac{5}{8}$ in. h.

Chnouphis, ram-headed, walking. *Blue and green porcelain*. From $1\frac{3}{4}$ in. to $\frac{7}{8}$ in. h.

Amoun-ra, or Harsaphes. *Blue and green porcelain*. 2 to $\frac{5}{8}$ in. h.

Khons, standing. *Light blue porcelain*. $1\frac{3}{4}$ in. to $\frac{5}{8}$ in. h.

Khons-*ioh*, hawk-headed, walking, shenti round the loins; on his head the lunar disk. *Blueish grey porcelain*. $1\frac{5}{8}$ in. h.

Phtah, or Phtha, standing; one holds the gom and emblem of stability. *Light green porcelain*. $2\frac{3}{4}$ to 1 in. h.

Heads, from small figures of Phtah. *Blue porcelain*. $2\frac{1}{2}$ to $1\frac{1}{2}$ in. h.

Phtah-Sochari, or Phtah-Sochari-Osiris, a youthful dwarf with bowed legs, naked, his hands upon his thighs, a close cap on his head. *Blue porcelain*. 3 to $\frac{3}{4}$ in. h.

Phtah, standing upon two crocodiles; on his head the *otf*, with a vertical scarabæus in front; a hawk upon each shoulder; Pasht Mereph-tah, lion-headed, and winged, supports him behind. *Vitrified stone, green porcelain*. $2\frac{5}{8}$ in. h.

Phtah-Sochari, without the *otf*, scarabæus on his head, hawk on each shoulder; Isis supports him at his right and Nephthys at his left side. Pasht Mereph-tah, human-headed and winged, supports him behind. *Light green porcelain*. $2\frac{1}{4}$ to $2\frac{3}{4}$ in. h.

Phtah-Sochari, standing on two crocodiles; on the head a scarabæus; a sword in each hand. *Blue porcelain*. $2\frac{3}{4}$ to $\frac{5}{8}$ in. h.

Phtah-Sochari bifrons, standing on two crocodiles, holds two swords, reeds, or feathers; two bands pass from the mouth to the shoulders; behind, a hawk-headed dwarf, with his hands on his loins. *Blue porcelain*. $2\frac{1}{2}$ in. h. *Memphis*.

Phtah-Khons, a dwarfish youth, with the lock of Horus. *Blue porcelain*. $1\frac{1}{4}$ in. h.

Onouris standing, brandishing a sword. *Red brick, terracotta*. 6 to 5 in. h.

Onouris as before; another figure of Onouris kneeling upon the left knee. *Blue porcelain*. $1\frac{1}{4}$ to $\frac{5}{4}$ in. h.

Athor or Hathor, cow-headed, standing. *Dark porcelain*. 2 in. h.

Head of Hathor, full face, cow-eared, a long curled lock on each side. *Blue porcelain*. $3\frac{5}{8}$ in. h.

Smaller heads of the same, hair straight and vertical. *Blue porcelain*. $\frac{3}{4}$ to $\frac{1}{2}$ in. h.

Ægis of Athor bifrons, cow-eared, between two uræi, one bearing the shaa, the other the teshr; fine workmanship. *Blue porcelain*. 3 in. h.

Re, Ra, or Phre, the sun, hawk-headed, walking, wearing the shenti, his head surmounted by the solar disk, with uræus in front. *Blue and gray porcelain*. $1\frac{1}{2}$ to 1 in. h.

Month-ra, walking; the disk at the base of the plumes wanting. *Deep blue porcelain*. $2\frac{1}{8}$ in. h.

Nofre-Thmou or Athom, walking upon a crouching lion. *Light green porcelain*. 4 in. to $\frac{5}{8}$ in. h.

Nofre-Thmou, walking; another figure of him seated. *Porcelain of various colours*. $2\frac{1}{8}$ to $1\frac{5}{8}$ in. h.

Hobs, form of Hor or Horus, lion-headed, human form, shenti round the loins. On his head the *otf*. *Blue porcelain*. $2\frac{5}{8}$ in. to $1\frac{1}{4}$ in. h.

Imothph, or Imouth, seated. *Steatite*. $\frac{7}{8}$ in. h.

Thoût or Thoth, ibis-headed, walking. *Blue porcelain*. $4\frac{5}{8}$ in. h.

Ooh, or Ioh-Thoth, walking, holding in his hands a pallet and reed. *Blue porcelain*. $\frac{7}{8}$ in. h.

Thoth, ibis-headed, walking; on his head a scarabæus. *Blue porcelain.* $2\frac{1}{2}$ in. h.

Meui, secondary form of Emphe, bearded, wearing the shenti, supporting the solar disk upon his head. *Blue and gray porcelain.* $1\frac{1}{2}$ to $\frac{5}{8}$ in. h.

Meui, as before, in profile. *Porcelain of various colours.* $1\frac{1}{4}$ to 1 in. h.

Selk, walking, head surmounted by a scorpion, tail erect. *Lapis lazuli.* $1\frac{3}{8}$ to $\frac{3}{4}$ in. h.

Thmèi, seated. *Lapis lazuli.* $1\frac{5}{8}$ to 1 in. h.

Div. 4. Horus, or Hobs, lion-headed, with the shenti, walking; arms folded across the breast. *Wood covered with bitumen.* $11\frac{1}{2}$ in. h.

Horus, or Hobs, standing; legs slightly bent. *Wood.* $7\frac{3}{4}$ in. h.

Thoût, or Thoth, walking, in a boat; black and yellow colour. *Painted wood.* $7\frac{3}{4}$ in. h., 1 ft. l.

A cippus or small monument. In front a bas-relief; Khons-Horus, standing, holding in the right hand a scorpion, gazelle, and two vipers; in the left a lion, scorpion, and two vipers; round his neck an ôskh, and heart-shaped vase. Above, the head of Khons-Kneph or Typhon, full faced. Behind, three incuse divisions. 1. Amoun-ra Harsaphes, a gazelle, on whose back stands a hawk of Horus, Thoth, and Chnouphis. 2. A procession of Meui, Re, Horus, Amset, Isis, and Tafne, with a vertical scarabæus. 3. The "Eye of Horus," having on his head the right symbolic eye, a deity striking a frog, an uræus, the four genii of the Amenti, and four figures of Thoth. Beneath, an invocation to the various deities in the compartments. *Calcareous stone.* 1 ft. 2 in. h., 9 in. b. *Presented by Col. T. P. Thompson.*

A cippus representing Horus standing. In his left hand he holds by the tails a scorpion and a lion; in the right, an oryx by the horn, and two serpents by their tails. Above, the gigantic head of Typhon, or Khons-Kneph, &c.; he stands on two crocodiles, and has at each side a standard. The back and edges are covered with an inscription relative to the subjugation of the impious by the arms of Horus. *Wood painted.* 1 ft. 5 in. h.

Cippi representing Horus, &c.; on the apex of one, a scarabæus with extended wings. *Steatite.* $4\frac{1}{4}$ to $3\frac{1}{2}$ in. h.

Horus Harpocrates, seated upon a throne flanked by lions; at the back, a doorway supported by two columns. *Brown stone.* $5\frac{3}{4}$ in. h.

Horus Harpocrates, seated, wearing the pschent; round the base, and at the side of the throne, an inscription in Gnostic symbols. *Steatite.* $3\frac{1}{2}$ in. h.

Horus Harpocrates, walking, with the pschent and mystic lock of hair, his finger raised to his lips; on the plinth behind in hieroglyphics, "Horus the giver of life—Onkhsnev, son of Djobous, born of Tikar, lady of the house." *Dark stone.* $7\frac{1}{4}$ in. h.

Horus Harpocrates, walking. *Basalt.* 11 in. h.

CASE B. DEITIES.

Div. 1. Osiris pethempantes, the Egyptian Pluto; standing, human form, bearded; on his head the ot; holds the curved sceptre and three-tonged whip. On the plinth behind, a dedication to Osiris, the revealer of good. *Calcareous stone.* $9\frac{3}{4}$ in. h.

Osiris pethempamentes standing; part of the head attire, beard, and string, which was inlaid of a different material, wanting. *Wood covered with stucco.* 1 ft. $\frac{1}{2}$ in. h.

Head of Osiris pethempamentes. *Calcareous stone.* $3\frac{5}{8}$ in. h.

Osiris onnôphris, the Egyptian Bacchus, human form, wearing the shaa, seated upon a throne; holds with both hands a gom. On the plinth, before his feet in hieroglyphics, "Osiris, lord of innumerable days, king of the gods." *Calcareous stone.* 1 ft. h.

A bust of Osiris onnôphris. *Calcareous stone.*

Female deity, Netpe, Isis or Nephthys, standing; wings attached to her arms. *Wood.* 1 ft. $4\frac{1}{2}$ in. h. *Presented by J. G. Wilkinson, Esq., 1834.*

The upper part of a statue of Isis Thermuthis. *Steatite.* $3\frac{3}{4}$ in. h.

Nephthys kneeling, on her head a basket and building, forming the phonetic combination of her name; the face gilded, the arms and legs wanting. *Painted wood.* $10\frac{1}{2}$ in. h.

Female deities, Isis or Nephthys, kneeling upon plinths, on one knee. *Painted wood.* $9\frac{1}{2}$ to $4\frac{1}{4}$ in. h.

Div. 2. Figures of Osiris pethempamentes standing; one has the eyes inlaid with silver. *Bronze.* 1 ft. to 1 in. h.

Small ornament; Osiris pethempamentes, five times repeated. *Bronze.* $1\frac{3}{8}$ in. h.

Head of Osiris onnôphris. *Bronze.* 5 in. h.

Osiris-iah, with the lunar disk, seated; round the plinth, in hieroglyphics, "Osiris the moon, the giver of life," &c. *Bronze.* 9 in. h.

Isis seated, suckling Horus; she wears the diadem of uræi, surmounted by the disk and horns, her hair long. *Bronze.* 1 to $1\frac{3}{4}$ in. h.

Objects representing the ægis of Isis; one, of fine execution, wants the head attire. *Bronze.* $10\frac{1}{4}$ to $1\frac{1}{2}$ in. h.

Har, or Hor, as in the lap of Isis, in a close cap, with the mystic lock, on his forehead an uræus, his finger upon his lips. *Bronze.* $5\frac{1}{2}$ to $\frac{7}{8}$ in. h.

Har, Hor, or Horus infant, seated, both arms by his side. Is probably from a seated figure of Isis, similar to the figure of Isis above. *Bronze.* $4\frac{1}{8}$ in. h.

Har, or Horus Harpocrates, as in the lap of Isis; wearing the pschent. *Bronze.* $4\frac{5}{8}$ in. h.

Har, or Horus Harpocrates, walking, wearing the pschent. *Bronze.* $8\frac{3}{4}$ to $3\frac{1}{4}$ in. h.

Harpocrates, as in the lap of Isis; on his head the teshr, disk and plumes; round the base, "Horus the Great, eldest son of Amoun." The plumes of one are wanting. *Bronze.* 7 to $1\frac{1}{7}$ in. h.

Har-si-esi, and Harsontiof, or Haröeri, hawk-headed, walking, wearing the pschent with uræus; the left hand has held the gom. The figure stands upon a double pedestal, decorated with inscriptions, but they are illegible. *Bronze.* $9\frac{3}{4}$ in. h.

Pnepto, son of Har, or Horus Harpocrates, seated; the head attire peculiarly formed, and the hair united into a thick tail behind; on his head are the horns of a goat surmounted by three vases, each having a disk at its apex, between two feathers and two uræi. *Bronze.* $5\frac{1}{2}$ to $4\frac{3}{4}$ in. h.

Pasht, or Tafne, the Merephtah, Hephaistoboule, or companion of

Phtah; lion-headed, standing; on her head the uræated disk, the eyes inlaid with silver. *Bronze*. $6\frac{1}{2}$ in. h.

Pasht, or Tafne, as above. *Silver*. 1 in. h.

Pasht or Menhi; on her head a place for the uræus; her left hand has held the lotus-sceptre. The right hand and lower part of this figure, which apparently has been seated, wanting. *Bronze*. $3\frac{5}{8}$ in. h.

Pasht-Menhi, standing. *Silver*. $1\frac{1}{8}$ in. h.

Pasht, or Bubastis, the Egyptian Diana; cat-headed, standing, in a long striated garment; left hand holding the ægis. *Bronze*. $5\frac{3}{8}$ to $2\frac{7}{8}$ in. h.

Pasht, or Bubastis, human form, standing, in a long garment with sleeves; in her right hand a fractured lion-headed ægis; a basket slung from her arm; her hair is short and bushy; an ôskh round her neck; down the back, "Pasht, the giver of life," &c. *Bronze*. $8\frac{3}{8}$ in. h.

Anoup, or Anubis, jackal-headed, walking; *Bronze*. $7\frac{1}{2}$ in. h.

Div. 3. Thaoeri, or Thoueris, hippopotamus body, standing, lion-headed, human breasts, the back covered with a crocodile's tail, the hands holding a peculiar kind of collar. *Calcareous stone*. 2 in. h.

A female deity seated on a throne, her hands by her sides; her head attire surmounted by the fore part of a fish; probably a type of Isis or Neith. *Green porcelain*. 3 to $2\frac{1}{4}$ in. h.

Hawk-headed deities, seated with their knees raised. *Green feldspar*. $\frac{7}{8}$ to $\frac{3}{4}$ in. h.

Hawk-headed deities, walking. *Lapis lazuli, porcelain, and blue glass*. $2\frac{1}{2}$ to $\frac{7}{8}$ in. h. *Thebes*.

Female deity walking. A similar deity seated with the knees raised. *Lapis lazuli*. $\frac{7}{8}$ to $\frac{3}{4}$ in. h.

Osiris pethempamentes, seated. *Blue porcelain*. $1\frac{7}{8}$ in. h.

Osiris-Tattou, under the form of the emblem of stability, surmounted by the ot. *Light blue porcelain, deep blue glass*. $4\frac{3}{8}$ to $1\frac{3}{4}$ in. h.

Isis seated, suckling Horus; on her head the uræus, the disk, and horns; on the plinth behind one, an inscription relative to "Isis, the great mother goddess, the giver of life." *Blue porcelain, wood, stone, &c.* $4\frac{1}{2}$ to $\frac{1}{2}$ in. h.

Isis terrestrial and queen of the Amenti, walking, her head surmounted by a throne. *Blue glass, porcelain of various colours*. $2\frac{1}{2}$ to $\frac{3}{4}$ in. h.

Isis terrestrial, kneeling. *Blue porcelain*. 1 in. h.

Isis terrestrial, seated upon a throne, suckling Horus. *Green porcelain*. 1 in. h.

Isis terrestrial, walking, holding the gom and ♀. *Green porcelain*. $1\frac{3}{4}$ to $1\frac{1}{4}$ in. h.

Nephtys, walking. *Lapis lazuli, porcelain of various colours, &c.* $2\frac{5}{8}$ to $\frac{5}{8}$ in. h.

Small tablets in high relief. Horus walking between Isis and Nephtys, each of whom he holds by a hand. The same subject in profile. *Blue porcelain*. $1\frac{1}{2}$ in. h.

Horus; his arms by his sides, mystic lock sometimes on the right, sometimes on the left shoulder. *White and blue porcelain*. $1\frac{3}{4}$ to $\frac{3}{4}$ in. h.

Har-si-esi, walking, hawk-headed, wearing the pschent, holding a gom. *Dark and light blue porcelain*. $1\frac{5}{8}$ to $1\frac{3}{8}$ in. h.

Har-si-esi walking; one figure has an inscription down the back to Haröeri. *Vitrified stone, light blue porcelain.* 2 to $1\frac{3}{8}$ in. h.

Small tablet, with Har-si-esi, seated with the knees raised. *Deep blue porcelain.* $\frac{9}{16}$ in. h.

Pasht, or Bubastis, lion-headed, walking; the head attire is broken off. *Blue porcelain.* $4\frac{1}{2}$ in. h.

Pasht, walking, the right hand holding the left symbolic eye, emblem of the moon; on the plinth behind, a perpendicular line of hieroglyphics. *Red and green porcelain.* 3 to $2\frac{3}{4}$ in. h.

Pasht, lion-headed, with uræus on the top of her head attire, walking; on the plinth behind, an inscription. *Green porcelain.* $3\frac{1}{2}$ in. h.

Pasht, lion-headed, walking, uræus on the head; in the left hand a lotus-sceptre. On the plinths behind some are inscriptions. *Blue porcelain.* $1\frac{1}{2}$ to $\frac{5}{8}$ in. h.

Pasht, lion-headed, walking; in her left hand a lotus-sceptre. *Blue porcelain.* From $4\frac{3}{8}$ to $1\frac{1}{8}$ in. h.

Pasht, lion-headed, seated on a throne; in her right hand a sistrum, in her left a lotus-sceptre; the throne decorated with winged serpents; at the sides and on the back ♀. *Blue porcelain.* $2\frac{1}{2}$ in. h.

Pasht seated on a plain throne. *Blue porcelain.* $1\frac{7}{8}$ in. h.

Pasht, or Tafne, lion-headed, walking, on her head the uræated disk of the sun. On a plinth behind one is "Pasht," &c. *Blue porcelain.* 2 in. to 1 in. h.

Pasht, walking, having on her head the pschent. *Blue porcelain.* $1\frac{1}{6}$ to $1\frac{1}{2}$ in. h.

Pasht, lion-headed, seated upon a plain throne, holding in both hands some object upon her chest. The back of this figure is formed by that of a hawk, the tail reaching to the ground. *Wood.* $2\frac{1}{4}$ in. h.

Ægis, having a male human head, full face, and part of the head of the lion-headed deity, which has been broken off. *Light blue porcelain.* 1 in. h.

Ægis of Pasht or Tafne, full face. *Blue and white porcelain.* $\frac{7}{8}$ in. h.

Lower part of a figure of Mephtah, walking, and holding a lotus-sceptre. On the plinth behind are her titles. *Dark porcelain.* $1\frac{3}{4}$ in. h.

Pasht, lion-headed, standing, profile to the right. *Transparent composition.* $1\frac{1}{4}$ in. h.

Plate in open work, procession of six female deities. *Blue porcelain.*

Nahab-ka, snake-headed deity, body like a long-tailed monkey, bow-legged; both hands applied to his head. *Blue porcelain.* $1\frac{1}{2}$ in. h.

Anepò, Anoup, or Anubis, jackal-headed, walking. *Porcelain of various colours.* $3\frac{1}{2}$ to $\frac{5}{8}$ in. h.

A small throne of open work; at the sides a deity walking, two winged serpents, and ♀. *Green porcelain.* $1\frac{1}{8}$ in. h.

Fragment, in two divisions, representing Typhon, full-face, and the hippopotamic deity, standing, in profile. *Yellowish green porcelain.* $1\frac{5}{8}$ in. h.

Typhon, full-face, standing, between two figures of the hippopotamic deity. *Deep blue porcelain.* $\frac{7}{8}$ in. h.

Te-oër, Thaoeri, or Thuoeris, hippopotamus standing on its hind legs, with pendent arms and the breasts of a female, the back covered by the tail of a crocodile. She is the companion of Khons (see above) and Typhon, in the astronomical scenes the Ursa Major, and apparently a form of Isis. At Ombos, the months are represented under analogous types. *Stone, porcelain, &c.* From 4 to $\frac{5}{8}$ in. h.

Te-oër, hippopotamic deity, a form of Hathor or Isis, with female face and head-dress. *Blue porcelain.* $1\frac{3}{8}$ in. h.

Div. 4. Pasht, lion-headed, walking; one arm broken off. *Wood painted with bitumen.* 1 ft. 6 in. h. *Tombs of the kings, Thebes.*

Hippopotamic deity, seated, her hands placed upon her knees. *Wood.* 1 ft. $4\frac{1}{2}$ in. h. *Thebes.*

The same deity, standing, in profile, holding in her hands and on the ground a peculiar object, perhaps a band or shawl. *Ebony.* $9\frac{1}{4}$ in. h.

Typhon, similar to Khons as Kneph, but without the plume, standing, full-face, bifrons. *Ebony.* $9\frac{1}{4}$ in. h.

Pasht, as the 'great avenger,' or Oëri-hek; seated on a throne, lion-headed, her arms by her sides; her throne based upon the bodies of four of the enemies of Egypt; two of the northern and two of the southern frontier. On the plinth, before the deity, two animals have been seated. The head attire wanting. 8 in. h. *Vitrified stone.*

Typhon, Seth, ass-headed, seated; the legs wanting, but the body apparently mummied. *Wood painted with bitumen.* 1 ft. 3 in. h. *Tombs of the kings, Thebes.*

A tortoise-headed deity, seated; one of the inferior genii. Idleness personified. *Wood covered with bitumen.* 1 ft. 3 in. h. *Tombs of the kings, Thebes.*

CASE C. DEITIES.

Div. 1. Amset, Hape, Kebhsnauf, with human, baboon, and jackal heads, walking; a shenti round the loins. The right hands raised to hold a gom. *Wood.* 1 ft. 9 in. to 1 ft. 8 in. h. *Tombs of the kings, Thebes.*

Div. 2. The four genii of the Amenti, Amset, Hape, Sioumautf, Kebhsnauf, mummied forms, standing upon plinths, each having his appropriate head, viz., human, baboon, jackal, hawk. These figures are generally placed near the coffins in the tombs. *Wood.* 1 ft. 4 in. h.

Div. 3. Amset, Hape, Sioumautf. These figures are generally found in the interior of the bodies of mummies. *Wax.* $3\frac{1}{2}$ in. h.

Amset and Hape, first and second genius of the Amenti. *Clay covered with red wax.* 3 in. h.

Amset, first genius of the Amenti. *Wax.* $3\frac{3}{4}$ in. h.

Amset, human-headed, in profile; Hape, baboon-headed; Sioumautf, jackal-headed; Kebhsnauf, hawk-headed. *Porcelain, various colours.* $3\frac{3}{4}$ to $1\frac{1}{4}$ in. h.

Div. 4. Sioumautf and Kebhsnauf, mummied, and seated with their knees raised. *Wood.* 1 ft. $4\frac{1}{2}$ in. h. *Tombs of the kings, Thebes.*

Kebhsnauf, hawk-headed, mummied, standing. *Wood covered with bitumen.* 1 ft. 6½ in. h. *Tombs of the kings, Thebes.*

CASE D. COFFIN, ETC.

A coffin, in the shape of a mummy, of Penamoun, Theban prophet priest of Amoun. Round the neck is a rich ôskh. Netpe winged kneels on the chest. The rest of the body is divided into compartments by hieroglyphics, consisting of sepulchral dedications to the celestial Osiris, Seb, and Anubis, with two prayers, one to Osiris by Penamoun, the prophet-priest of Amoun, &c., son of Sa-bai-tattou, a similar functionary. The compartments contain the four genii of the Amenti, Osiris placed between two symbolic eyes, and two female disked winged deities, probably Isis and Nephthys. On the feet the goddess Isis disked, winged, kneeling. The back of the coffin has the emblem of stability, surmounted by two arms holding a disk, entitled "the eye (of Horus), the lord of truth." At each side of this emblem, is a standard of the god Nofre-Thmou; and at the base, symbols of the West and life. The perpendicular line of hieroglyphics in front of the coffin contains a dedication to Osiris. *Wood painted.* 6 ft. 4 in. h. Outer coffin over Cases A. and B.

A stand for offerings, in the form of a rounded column, placed on a pedestal, the capital in form of the lotus flower. *Painted wood.* 3 ft. h.

Capitals of similar stands; one is rectangular at the apex, with three spikes to hold objects of offering. *Painted wood.* 2 to 4½ in. h.

A stand or altar for offerings. Stem cylindrical, tapering from a broad circular base, and expanding at the top; at the centre a large circular plate with a rim for holding offerings; on the stem and rim are inscriptions; those on the base apparently invocations for Psametik. *Bronze.* 4 ft. 5 in. h.

CASE E. ANIMALS, DEITIES, ETC.

Div. 1. Jackals, seated, with pendent tails; animals sacred to Anubis. *Painted wood.* 1 ft. 3 in. l., 9¼ in. h., to 3½ in. l., 1½ in. h.

Div. 2. Chnouphis, ram-headed, walking. *Painted wood.* 1 ft. 10 in. h. *Tombs of the kings, Thebes.*

Hobs or Horus, lion-headed, walking; the feet wanting. *Wood covered with bitumen.* 1 ft. 7½ in. l. *Tombs of the kings, Thebes.*

Figure of a Pharaoh, standing, on his head the teshr, round his loins a double triangular apron. *Painted wood.* 1 ft. 9 in. h. *Tombs of the kings, Thebes.*

Thoth, ibis-headed, walking; much corroded. *Wood.* 1 ft. 8½ in. h. *Tombs of the kings, Thebes.*

Div. 3. Kneph or Chnouphis, ram-headed, walking. *Wood.* 1 ft. 8 in. h.

Isis or Nephthys, standing, in profile to the right; a wing attached to each arm, the left raised, the right inclined to the earth; in her right hand a feather; before, part of a naos. Flesh gilded, hair and wings inlaid with porcelain. *Wood.* 2 ft. 1 in. h.

CASE F. SACRED ANIMALS, QUADRUPEDS.

Div. 1. Jackals, emblems of Anubis, lying down; some with collars round their necks, inlaid with porcelain or composition. *Wood.* 1 ft. 9 in. l., 10 in. h.; 4 in. l., 4 in. h.

Div. 2. Cynocephalus, or dog-headed baboon, emblem of the moon, seated; fore paws upon his knees; on his head the lunar disc. *Dark stone.* 8 in. h.

Cynocephali seated, the fore paws upon the knees. In one, the eyes, collar, and symbolic eye pendent from the same, are inlaid with gold; round the base a dedication to "Thoth, lord of Shmoun" (Hermopolis). *Bronze.* From $2\frac{1}{2}$ to $1\frac{1}{8}$ in. h.

Lion, emblem of Phtha or Horus, lying extended; apparently taken from the apex of a sistrum. *Bronze.* $2\frac{3}{8}$ in. l., $1\frac{1}{8}$ in. h.

Cats, emblems of Pasht or Bubastis, seated; some have collars round their necks; one has the symbolic eye suspended from the collar; round the base, a dedication to Pasht. *Bronze.* 11 to $\frac{3}{8}$ in. h.

A cat, placed upon a staple. *Bronze.* $2\frac{1}{2}$ in. h.

Heads of cats, from statues; on one an engraved symbol; the ears have held ear-rings. *Bronze.*

A wolf? emblem of Osiris, walking. *Bronze.* $\frac{7}{8}$ in. h.

A jackal, emblem of Anubis, standing on a standard; model of one of the standards borne in the funeral processions. *Wood.* $4\frac{1}{2}$ in. h. *Thebes.* Presented by J. G. Wilkinson, Esq., 1834.

A dog with a curled tail, and collar round the neck, of the Greek or Roman period. *Terracotta.*

Shrew-mice, emblems of Maut or Buto. On the shoulders of one is engraved the winged globe; on the back, a vulture with outstretched wings; a similar vulture behind; round the pedestal, dedications to Athor or Horus. *Bronze.* $5\frac{1}{2}$ in. l., $2\frac{1}{2}$ in. h.

A horse, sacred to Amoun-ra, bridled; of late workmanship. *Bronze.* 1 in. h.

Apis, the bull, emblem of Osiris and the moon; one has the uncreated disk between the horns; on the neck, the scarabæus with open wings; a housing on the back, behind which a vulture with expanded wings; these are all engraved. *Bronze.* From $2\frac{3}{4}$ to $1\frac{3}{8}$ in. h.

Apis, walking; the horns and disk are wanting. This figure is on its original plinth. *Wood.* 1 ft. 3 in. l., $9\frac{1}{2}$ in. h.

Apis, walking; a man with the shenti kneels upon both knees facing the bull. The head of this figure is broken off. *Dark stone.* $7\frac{1}{2}$ in. h.

Gazelle, walking, sacred to Typhon. $1\frac{3}{8}$ in. h. Another, with its legs bound for sacrifice. *Bronze.* $2\frac{1}{2}$ in. l.

Ibex, kneeling upon the right fore leg; emblem of Typhon. *Wood.* 2 in. h.

A ram, the emblem of Chnouphis, walking, on its head the *off*; of a late era. *Bronze.* $2\frac{1}{8}$ in. h.

A ram, with the head attire of Amoun-ra. *Bronze.*

The head of a ram; beneath are the ends of four iron pins to attach it to some other object, and above, an iron pin for the head attire. *Brown stone.* 3 in. h.

A sow, Typhonian animal, walking; under her two pigs. *Bronze.* $1\frac{1}{8}$ in. h., 2 in. l.

A mystic animal; the head and neck are those of a viper, the body of a quadruped. (Vid. Rosellini, M.C. XXIII. 2.) *Wood.* 11 in. l., $4\frac{3}{4}$ in. h.

Div. 3. Cynocephali, seated or standing, sacred to Ioh-Thoth. One holds a symbolic eye, emblem of the moon; another stands on its hind legs. *Porcelain, vitrified stone, &c.* 4 to $\frac{3}{8}$ in. h.

Cynocephali, seated, having on their heads the disk of the moon. *Stone, porcelain.* 3 to $\frac{1}{2}$ in. h.

A monkey, seated, fore paws on the mouth. *Green porcelain.* 1 in. h.

Lions couchant, emblems of Phtah and Horus. *Porcelain.* 2 in. l., $1\frac{1}{2}$ in. h., to $\frac{3}{8}$ in. l., $\frac{5}{16}$ in. h.

The anterior parts of two lions, supporting between them the disk of the sun. *Porcelain.* $\frac{3}{4}$ in. l., $\frac{5}{8}$ in. h.

The same, without the disk. *Porcelain.* $1\frac{1}{4}$ in. l.

The anterior parts of a lion and bull conjoined. *Porcelain.* From $1\frac{1}{8}$ to $\frac{7}{8}$ in. l., $\frac{1}{2}$ in. h.

Head of a lion, emblem of vigilance. *Green porcelain.* $\frac{1}{2}$ in. h.

Sphinxes, emblematic of intellect and strength, lying down or seated; on the head of one is an inverted lotus. *Terracotta, porcelain.* From 4 to 1 in. h.

Dogs, seated or lying down, emblems of Anubis. One asleep. *Porcelain, ivory.* 1 to $\frac{1}{4}$ in. h.

Cats, seated, emblems of Pasht. *Porcelain.* 6 to $\frac{1}{2}$ in. h.

A cat on the top of a column with a lotus capital. *Porcelain.* $1\frac{3}{4}$ in. h.

Cats; before each a kitten. *Porcelain.* $1\frac{1}{4}$ in. h.

The bull Apis, walking. A tablet with the same in bas-relief. *Blue porcelain.* 1 to $\frac{1}{2}$ in. h.

Head of a bull. *Porcelain.* $\frac{1}{4}$ in. h.

Head of a bull, bearing a disk. *Terracotta.* 5 in. h.

A cow, lying down; on its head, disk and plumes. *Red composition.*

Ibex, lying down. This animal, as well as the gazelle, appears to have been devoted to Typhon. *Red porcelain.* $\frac{1}{2}$ in. l.

Rams, walking, emblems of Chnouphis. *Porcelain.* $\frac{1}{2}$ in. h.

The same, lying down. *Porcelain.* From $\frac{7}{8}$ to $\frac{5}{8}$ in. h.

Heads of rams, surmounted by the uncreated disk of the sun, emblems of the same. *Porcelain.* 1 in. h.

Swine, walking, emblems of Typhon. *Porcelain.* $1\frac{1}{8}$ to $\frac{1}{2}$ in. h.

Hares, emblems of Osiris onnôphris; one has the head turned behind. *Porcelain, ivory.* $\frac{1}{2}$ to $\frac{3}{8}$ in. h.

Div. 4. Heads of sacred cows or bulls, their distinctive emblems broken off. *Wood.* 1 ft. $7\frac{3}{4}$ in. h., $9\frac{3}{4}$ in. l. *Tombs of the kings at Thebes.*

Ears from similar heads. *Wood.* $5\frac{1}{2}$ in. l.

Models of rams' heads. *Crude unbaked earth.* $2\frac{1}{2}$ to 2 in. h.

Horn of a ram. *Bronze.* $4\frac{1}{2}$ in. l.

Head attire, disk, &c. *Wood.*

CASE G. SACRED ANIMALS, CHIEFLY BIRDS.

Div. 1. Hawks, bodies swathed, apparently emblematic of Sochari. Many have been placed on the plinths of Osiris, or upon coffins. *Wood.* $7\frac{1}{2}$ to 2 in. h.

Hawk, crowned with the pschent, upon a pedestal, decorated with an auditor of truth in the act of adoration. *Wood.* 1 ft. $4\frac{1}{2}$ in. h.

Hawk of Re, or Ra, the sun; on its head the solar disk. *Wood.* 1 ft. h.

Vultures, emblems of Maut, standing upon plinths. *Wood.* $8\frac{1}{2}$ in. h.

Div. 2. Head of an ibis, emblem of Thôout, or Thoth. *Wood.* $4\frac{3}{4}$ in. l., 2 in. h.

Head and neck of a goose, sacred to Seb, or Saturn. *Wood.* $7\frac{1}{4}$ in. l., $3\frac{1}{8}$ in. h.

Ibis, emblems of Thoth. The eyelids of one have been inlaid in silver. *Bronze.* $2\frac{1}{2}$ in. h. *Thebes.*

Hawks, crowned with uræated disks, emblems of Re, or Ra. *Bronze.* $1\frac{1}{10}$ to $\frac{15}{16}$ in. h.

Human-headed bearded hawk, flying with extended wings. It has apparently formed a portion of inlaying. *Silver.* $2\frac{1}{2}$ in. h., 3 in. b.

Hawks, crowned with the pschent, emblems of Horus. *Bronze.* From $1\frac{7}{8}$ in. h. to 1 in. h.

Oxyrhynchus; on its head is the uræated disk and horns. This fish was consecrated to Thoth and the moon. *Bronze.* $3\frac{1}{2}$ in. l., $2\frac{5}{8}$ in. h. *Thebes.*

Fish of the Lepidotus, or Carp species. *Bronze.* $2\frac{1}{4}$ in. h., 4 in. l.

The smaller figure of a like fish. *Silver.* 1 in. l.

Uræi, the heads disked. *Wood.* $6\frac{1}{2}$ to $3\frac{1}{2}$ in. h.

Small hawks, with swathed bodies, emblematic of Sochari. *Wood.* $3\frac{3}{4}$ to $1\frac{7}{8}$ in. h.

Human-faced hawks, emblems of the soul. Those whose heads are disked represent the souls of deities. *Wood.* 6 to $3\frac{1}{4}$ in. h.

Uræus coiled upon a plinth; the head and neck erect. On the breast the symbol of Neith. *Wood.* 7 in. h.

Lower part of an uræus coiled upon a plinth. On one side a line of hieroglyphics, "Amonemophth gives thanks to Oeri-hek," one of the titles of Pasht, as the Egyptian Nemesis. *Wood.* 9 in. l., $4\frac{1}{2}$ in. h.

Uræus, in profile. *Bronze.*

Uræus, crowned with the disk of the sun; the breast inlaid with blue and red porcelain; the whole has been gilt. *Bronze.* $3\frac{1}{2}$ in. h.

Uræus, crowned with a conical cap. On its breast the name of Neith, of which it is a personification. *Bronze.* $1\frac{5}{8}$ in. h.

Uræus, the head and neck erect, crowned with the head-dress of Osiris; emblem of Soven, or Sowan. The neck has cavities for inlaying. *Bronze.* 3 in. h.

Uræus, erect, upon a column with a lotus capital, the head crowned with the emblem of a goddess, mistress of the lower hemisphere, as Neith, Sate, &c. *Bronze.* $3\frac{1}{8}$ in. h.

- Uræi; the head ornament indistinct or wanting. The breasts inlaid with a red and blue composition. *Bronze.* $1\frac{1}{4}$ to $\frac{7}{8}$ in. h.
- Uræus, having the head and bust of Jupiter Serapis, crowned with a modius. *Bronze.* $1\frac{1}{2}$ in. h.
- Uræus, hawk-headed, crowned with the disk of the moon, emblem of Khons-Ioh. *Bronze.* $1\frac{5}{8}$ in. h.
- Heads and necks of vipers. *Wood.* $6\frac{1}{2}$ in. l., $2\frac{5}{8}$ in. h.
- A frog, emblem of the pure waters sacred to Chnoum. Three frogs seated in a row upon circular plinths. *Bronze.* $1\frac{1}{4}$ in. l., $\frac{5}{8}$ in. h., to $1\frac{1}{8}$ in. l., $\frac{1}{4}$ in. h.
- A crocodile, emblem of Sevek, the Egyptian Saturn. *Bronze.* $\frac{3}{4}$ in. h.
- Div. 3. Hawks, emblems of divinities in general, especially of Horus. *Basalt, green feldspar, porcelain, &c.* 4 to $\frac{1}{2}$ in. h.
- Hawks, crowned with the pschent; emblems of Har-öeri, or Har-siesi. *Porcelain.*
- Hawk; on its head, disk and plumes of Amoun, emblem of Athor. *Blue porcelain.* $1\frac{1}{4}$ in. h.
- Hawk, with the head attire of Phtah-Sochari. *Blue porcelain.* $1\frac{1}{8}$ in. h.
- Hawk of Ooh, or Ioh; on its head the disk of the moon. *Dark porcelain.* 1 in. h.
- Human-headed hawks, emblems of the soul. *Lapis lazuli, porcelain.* $1\frac{1}{8}$ to $\frac{3}{4}$ in. h.
- Nycticorax, the Ben or Bennou of the Egyptians; emblem of Osiris pethempamentes. *Wax.* $\frac{3}{4}$ in. h.
- An ibis, seated, its beak placed upon a frog. *Blue porcelain.* $\frac{3}{4}$ in. h.
- A goose, standing on a lotus-flower; emblem of Seb, or Saturn. *Porcelain.* $\frac{1}{2}$ in. h.
- Crocodiles, emblems of Sevek, the Egyptian Saturn. *Steatite, porcelain.* 4 to 1 in. l.
- Latus, or Binni fish, emblem of Athor. *Red porcelain.* 1 in. l.
- Siluri, or Bayads. *Blue porcelain.* $1\frac{3}{4}$ in. h.
- Uræi. *Agate, porcelain.*
- Uræi, with female faces, surmounted by tall plumes, personifications of Mere-sochari, in profile to the right. *Porcelain.* $1\frac{1}{4}$ to 1 in. h.
- Lion-headed uræi, emblems of Chnoumis. *Porcelain.* $1\frac{3}{4}$ in. h.
- Frogs. *Serpentine, hematite, porcelain, &c.* $1\frac{3}{4}$ to $\frac{5}{4}$ in. h.
- Scorpion, emblem of Selk. *White porcelain.* $2\frac{1}{8}$ in. l.
- Scarabæi with hawk and cow heads; one with wings expanded thrusts forward the disk of the sun. *Lapis lazuli, hematite, &c.* 1 in. l.
- Koucoupha sceptre of gom, emblem of strength. *Green porcelain.* $1\frac{3}{4}$ in. h.
- Symbols of life. *Porcelain.* $1\frac{3}{8}$ to $\frac{3}{4}$ in. h.
- Emblems of stability, or nilometers; pilasters with four transverse capitals. *Porcelain.* $4\frac{1}{2}$ in. to $\frac{3}{4}$ in. h.
- Div. 4. Head of the Hippopotamus, sacred to Onouris. *Wood.* $9\frac{1}{2}$ in. h. *Tombs of the kings, Thebes.*
- Feet of a vulture, from a figure of the bird. *Bronze.* $6\frac{7}{8}$ in. h.
- Models of vultures. *Crude unbaked earth.* $3\frac{1}{2}$ to $2\frac{1}{4}$ in. h.

Models of uræi ; on the breast of one a line of hieroglyphics traced in white. *Crude unbaked earth.* $3\frac{3}{4}$ to $2\frac{1}{4}$ in. h.
 Emblems of life. *Wood.* 9 in. h.
 Emblems of stability. *Wood.* 9 in. h.
 Portions of the symbolic eye, prepared for inlaying in a large statue or coffin. *Grey stone.*

CASE H. SMALL STATUES.

Div. 1. Male figure, walking, with the shenti ; the features large, coarse, and peculiar, the beard short ; the workmanship of an early era. *Calcareous stone.* 1 ft. 5 in. h.

Figure of a functionary, walking, upon a rectangular plinth, with long hair and a garment round the loins. On the plinth are two horizontal lines of hieratic. *Calcareous stone.* 1 ft. 4 in. h.

Head and chest of a sacerdotal functionary ; the head in a skull cap ; part of a group, the hand of another figure resting on the right shoulder ; at the back is part of a sepulchral dedication to Phtah. *Green basalt.* 5 in. h.

Figure of a man standing ; the hair short, and a short garment round the loins ; a boatman ? *Wood.* $11\frac{7}{8}$ in. h.

Figure of Os-he standing, holding before him a tablet on which is an act of adoration to Re. *Calcareous stone.* 1 ft. 4 in. h.

Figure of Shamaroei, a sacerdotal functionary, seated by the side of his sister Toernofre ; at the sides, his children ; at the back, a dedication to Amoun-ra ; also to Isis and Athor round the plinth. *Calcareous stone.* 1 ft. 4 in. h.

Part of a figure of a priest named Psametik, holding a naos in which is Neith. *Green basalt.* 6 in. h.

Div. 2. Figure of a Pharaoh, standing, collar round the neck, short garment round the loins, fringed apron. On the forehead a place for the uræus. *Wood.* $7\frac{1}{4}$ in. h.

Figures of men, seated on thrones based on pedestals ; hair short, bearded, shentis round the loins. *Wood.* 1 ft. $7\frac{1}{2}$ in. h. *Tombs of the kings, Thebes.*

Figure of a high officer of state, walking, with a long garment gathered round the loins ; his hair long and falling on his shoulders before ; on the plinth behind, the naked figure of a boy in bas-relief. *Ebony.* 1 ft. 7 in. h.

Figure of a high officer of state, in a long garment with full sleeves, plaited from the loins downwards, formed into an apron in front ; his hair long, falling in two lappets on the shoulders ; the left hand open, and the right clenched. *Wood.* $11\frac{1}{2}$ in. h.

Figure of a man, walking, clothed from the loins downwards ; he holds a basket or vase in the left hand, and the handle of some instrument in the right. *Wood.* $5\frac{1}{2}$ in. h.

Rowers, seated with their knees raised ; arms moveable ; from models of boats. The flesh of one coloured yellow. *Wood.* From $4\frac{3}{8}$ to 5 in. h.

Figures of men, walking, shentis round their loins. The moveable arms are wanting. These figures are also from sepulchral boats. *Wood painted.* $6\frac{1}{2}$ to 3 in. h.

Priest, from a model of a sepulchral boat. *Wood painted.* 4 in. h.

Female figures, walking, the head attire of one bound with a fillet. *Wood.* 8 in. h.

A naked figure standing, with close cap, probably one of the sacerdotal class. *Ivory.* $4\frac{1}{2}$ in. h. *Memphis.*

Figure of a man, unbearded, seated; the arms and legs wanting. *Wood painted.* *Tombs of the kings, Thebes.*

Div. 3. Figure of a king walking; on his head the uræated claft, with fore lappets and tail; round his loins a shenti. *Bronze.* 7 in. h.

Figure of a king standing; his head is bound round with a diadem, and in the centre is the place for the insertion of the uræus; his left hand is raised, and his right placed on his waist; round his neck is an ôskh, and a feathered garment and tunic round his loins; on his head a low modius with a place for the insertion of a distinctive head ornament, apparently two plumes. The dress is richly inlaid with silver. *Bronze.* $9\frac{5}{8}$ in. h.

Small statue of Phtahmai, bard and royal scribe of the tables of all the gods, in a tunic, fluted and gathered from the loins downwards; he kneels on both knees, and holds before him a tablet on which is inscribed the prenomens of Rameses the Great [Sesostris], the symbol of gold, and the notched palm branches indicative of time, placed on frogs or tadpoles, emblems of Chaos, from which Time springs. *Dark green steatite.* $3\frac{1}{2}$ in. h.

A king walking; an ôskh round his neck; a short garment with the apron between two pendent uræi round his loins. His left hand holds a short sash, the emblem of military power; his right a crook. The head is wanting. *Soft stone.* $5\frac{5}{8}$ in. h. *Thebes.*

Group representing an individual named 'Monthoph' standing, in a long garment, having on his left side, his mother Apou, and on his right, his wife Taut-pneb? with each an arm round his neck; on the back a sepulchral dedication to Osiris, and the names of the three persons, with that of his son Har, a sacred scribe. *Dark stone.* $5\frac{1}{2}$ in. h.

Lower portion of the figure of a priest, standing, holding before him a naos, in which is Osiris. On the plinth behind, part of the genealogy of the deceased. Of the time of the 26th dynasty. *Green basalt.* $6\frac{3}{4}$ in. h.

A priest, kneeling, holding upon his head a bowl, in which are five cakes of bread; his right hand raised. *Bronze.* $5\frac{3}{4}$ in. h. *Thebes.*

Priests of libations, kneeling; in the right hand of two a vase, in the left an altar; round the plinth of one an inscription, almost effaced. *Bronze.* $3\frac{3}{4}$ to $2\frac{1}{4}$ in. h. *One of these from Abydos.*

Altar of libation, with vases, cakes, &c. At each corner in front, a hawk; behind, two cynocephali, having on their heads the disk of the moon. A shorn figure, with a short garment round the loins, kneels between them. A frog with a hole between his fore feet serves as a spout. *Bronze.* $2\frac{1}{4}$ in. l., $1\frac{5}{8}$ in. b., 1 in. h.

The figure of a deceased scribe, Nebre, standing, clothed from the chest to the ankles; he holds before him a figure of Osiris. The hair

and faces are coloured; on the back, his name and titles traced in black. *Calcareous stone.* $9\frac{3}{4}$ in. h. *Thebes.*

Figure of Senofrenebmas, seated on a throne, holding in his left hand a stem and flower of the papyrus; at his right side a naked child placing a finger upon his lips; on the plinth behind, and on the sides of the throne, a hieroglyphic dedication to Osiris, lord of Tattou, for the devotion of the deceased, Senofrenebmas, and for his brother Mautsi. *Calcareous stone, painted.* $8\frac{1}{2}$ in. h. *Thebes.*

A male figure, walking, in the attitude of offering; his head shorn, a short belted garment round the loins, and another round his waist, with an ôskh and ornament round the neck. *Bronze.* $9\frac{3}{4}$ in. h.

Figure of a man, standing, clothed from the chest to the ankles. On the plinth, a sepulchral dedication for the deceased, offered by his brother. *Basalt.* 6 in. h.

A small statue of Sevek-nasht, son of Eiaô, walking; in each hand a cylindrical roll; on his head a cleft; a belted shenti round his loins; his name is inscribed before his right foot; on the sides of the column behind, are two sepulchral dedications to Osiris and Anubis. *Calcareous stone.* 1 ft. $1\frac{1}{2}$ in. h.

A male figure, with a shenti, seated on a throne: before him an altar for libations, and a flight of stairs; the plinth red; the disposition of the hair and form of the features peculiar. It seems of an early period. *Arragonite and calcareous stone.* $7\frac{1}{4}$ in. h. *Abydos.*

A similar figure, walking, on a plinth; before his feet, a small flight of steps. *Arragonite and calcareous stone.* $6\frac{3}{4}$ in. h. *Abydos.*

Male figure, walking, on a plinth, wearing an ôskh and shenti; head and right arm wanting; round the edge of the plinth, a sepulchral dedication to Osiris, lord of Abydos, for the deceased, by his brother Thoth. It is of coarse execution. *Calcareous stone.* $5\frac{1}{4}$ in. h.

A man, walking, wearing an ôskh, and garment from the loins to the knees. *Dark sandstone.* $8\frac{1}{2}$ in. h.

A male figure, walking; on his head a conical cap, disk, and horns; a long sash descends from the apex of the cap to the feet. *Bronze.* $2\frac{3}{4}$ in. h. *Thebes.*

A male figure, kneeling, with a shenti; hands and arms placed by the sides; the head in a cleft, with lappets before. *Bronze.* $2\frac{1}{8}$ in. h. *Thebes.*

The figure of a man, walking; in each hand a cylindrical roll; on his head the cleft, with lappets on each shoulder before. The workmanship of a late period. *Bronze.* 4 in. h. *Thebes.*

A figure, apparently female, almost naked, walking, holding a calf, slung round her neck, by its four feet. Her right hand is pendent by her side, and grasps by the horns an oryx or gazelle. These animals were probably borne as offerings. *Green vitrified earth.* $7\frac{1}{2}$ in. h.

A naked female figure; her right knee on a semicircular base; she wears the ôskh and anklets; her elbows have been placed upon two columns, rising from each end of the base. The head, right arm, and one column, are wanting. *Steatite.* 3 in. h.

A female lying on a couch in a long close tunic; her head supported by an ouols or headrest; round her neck an ôskh; her hair in the style of the 22nd dynasty. A child is placed transversely under her legs. *Calcareous stone.* $8\frac{1}{2}$ in. h.

The figure of a female, lying upon a bier or couch: on her head a pyramidal ornament; her body clothed. On her right, the naked figure of a child; above his head, a hieratic inscription. The figures are surrounded by the painted figure of an asp. *Calcareous stone.* $9\frac{1}{2}$ in. l.

Nubian female, kneeling and grinding. *Calcareous stone.* 9 in. h.

Heads and torsos of two females, supporting on their heads two monkeys turned back to back, with their right paws on their mouths. *Porcelain.* $2\frac{1}{8}$ in. h.

A seated female; in her left hand ♀; the hair blue, in short rows of curls; the eyes inlaid. *Calcareous stone, gilt.* 5 in. h.

A female, standing, her hair disposed similarly to that of Athor, a fillet along the top and back of the head; her arms pendent; on the column behind, a dedication to Osiris for the deceased. *Calcareous stone.* $5\frac{1}{2}$ in. h.

A female, standing, with a girdle round the loins; on her head a cowl, and disk with holes around; she holds some object under her right breast. *Porcelain.* $4\frac{1}{2}$ in. h.

Div. 4. Namms, or head-dress, from the statue of a king; the diadem gilt, and inlaid with red and light blue porcelain; behind, one vertical, and two oblique bands, the latter terminating in uræi. *Blue porcelain.* $3\frac{7}{8}$ in. h.

Heads from the statues of priests; the face of one gilt. *Green basalt, calcareous stone.* 2 to $1\frac{1}{2}$ in. h.

Heads and busts of high officers of state, with long hair, from statues. *Calcareous stone.* $7\frac{1}{4}$ to 2 in. h.

Heads of females, from statues. *Calcareous stone.* 6 to $5\frac{1}{2}$ in. h.

A bearded head, of the Greek or Roman epoch. *Arragonite. Presented by J. G. Wilkinson, Esq., 1834.*

An arm and hand bent, holding some object of offering. *Bronze.* 3 in. h. *Temple of Berenice. Presented by J. G. Wilkinson, Esq., 1834.*

Legs, hands, and arms from statues. *Wood.* From 1 ft. $2\frac{1}{2}$ in. to 4 in l.

Hands and arms, carved on one side only, and used for inlaying. *Porcelain and composition.* 3 to 1 in. l.

Foot, and pair of feet from statues. *Bronze.* 3 to $\frac{1}{2}$ in. h.

CASE I. K. L. HOUSEHOLD FURNITURE, AND OTHER LARGE OBJECTS.

Div. 1. A seat, with four turned legs, which, with the rails, are inlaid with ivory. The seat concave, covered with stucco, of a maroon colour, each side supported towards the centre with small bars of ivory. *Wood.* 1 ft. $2\frac{1}{4}$ in. h. *Thebes.*

A seat of similar form, coloured. *Wood.* $10\frac{3}{4}$ in. h. *Thebes.*

A similar seat; the bottom has been of leather. *Wood.* 1 ft. $\frac{1}{4}$ in. h., seat 1 ft. $2\frac{1}{2}$ in. sq. *Thebes.*

A high-backed chair, the back double; the inner sloping, the outer upright; the bottom of platted cord, like modern cane-bottomed chairs. *Wood.* 2 ft. 4 in. h., seat 1 ft. 3 in. sq., 1 ft. $1\frac{1}{2}$ in. h. *Thebes.*

A seat with four curved legs crossing and moving on a bronze pivot; they terminate in the head of a goose, the eyes and nostrils inlaid with ivory; the seat has been of maroon-coloured leather; the legs are de-

corated with inlaid patterns. *Wood.* 1 ft. 9½ in. b., 1 ft. 11 in. h. *Thebes.*

A high-backed chair on lion-footed legs; the back solid, inlaid with panels of darker wood, with lotus flowers of ivory; the bottom of cord. *Wood.* 1 ft. 11½ in. h. *Thebes.*

Three-legged stools; the seats concave; the legs curved outwards; one has been coloured white. *Wood.* 1 ft. ½ in. to 11 in. h. *Thebes.*

A square stool, of light wood, but strong and compact, with upright and diagonal bars, the bottom concave, formed of four flat bars; the whole is covered with white fresco. *Wood.* 1 ft. 3 in. h. *Thebes.*

Ouols or rests for the head consisting of a semicircular support upon a column based upon a plinth. One is supported on two diagonal legs united by a brass pin; of another, which has consisted of two such pieces morticed together, the half only remains. *Arragonite, calcareous stone, wood.* 10 to 5½ in. h. *The last presented by J. G. Wilkinson, Esq., 1834.*

Upper part of an ouols, the sides carved in bas-relief, representing Khons-Kneph. *Wood.* 4 in. h.

Ouols with a fluted column; in front a perpendicular line of hieroglyphics relative to Iot-kai or Atkai, holding some office. *Arragonite.* 6⅞ in. h.

Ouols. In front a line of hieroglyphics relative to Mas-khar-haô, a royal bard, glorifier of Amoun. *Wood.* 6¼ in. h.

Div. 2. The square bottom of a seat, concave, covered with stucco, and decorated with a coloured border. *Wood.* 1 ft. 5 in. sq. *Thebes.*

Three legs from a gal or couch, representing the fore and hind parts of lions; they are painted of a dark colour. *Wood.* 1 ft. 8 to 1 ft. 6 in. h.

The fore foot of a similar couch; lion's head in a cleft. *Wood.* 1 ft. 4½ in. h.

A similar foot; but the head that of a cow. 1 ft. 4½ in. h.

Legs from chairs and seats, turned or flat; one has the head of a goose; another, lion's claws. *Wood, ebony, &c.* 1 ft. 5½ in. l., 3 in. l.

Cushion, stuffed with feathers of water-fowls. *Linen.* 1 ft. 5 in. l.

Two fragments from the Propylon of the brick Pyramid of Dashour; one contains part of a royal cartouche. *Calcareous stone. Presented by Col. Howard Vyse, and J. E. Perring, Esq., 1840.*

A cramp; on its upper surface, "the lord of diadems, Osirei-Meneptah I.," 12th king of the 18th dynasty. B.C. 1604-1579. *Wood.* 1 ft. ½ in. l.

Two cramps, used for connecting masonry. *Wood.* 1 ft. 1 in. l. *Ramesseium at Thebes.*

A cramp. *Lead.* 5 in. l. *Temple of Berenice. Presented by J. G. Wilkinson Esq., 1834.*

A small cramp, in a state of decomposition. *Wood.* 7 in. l. *Thebes. Presented by J. G. Wilkinson, Esq., 1834.*

Keys. *Iron.* 5 in., 4¾ in., 4½ in., 1¾ in. h. *Thebes.*

A pair of hinges, with the basalt socket of the lower. *Bronze.* 7 in. h., 11 in. l. *Granite sanctuary of the great temple of Karnak.*

A hinge. *Bronze.* 5 in. l.

Capital of a column, with lotus flowers. *Calcareous stone.* 4½ in. h. *Presented by J. G. Wilkinson, Esq., 1834.*

Small tiles, part of the inlaying of a door in a pyramid at Sakhara. *Dark and blue porcelain.* $2\frac{1}{2}$ in. to 1 in. l. *Three presented by Col. Howard Vyse, and J. E. Perring, Esq., 1840.*

Pyramidal stand for a vase; the legs painted blue, red and yellow. *Wood.* 2 ft. 4 in. h. *Thebes.*

A stand with six legs, probably for holding a vase, coloured white. *Wood.* 1 ft. 3 in. h.

The model, apparently of a house, square at the base, and slightly converging towards the top, which has had a balustrade all round; there are two doors, and six windows at each side, the upper ones latticed. *Calcareous stone.* $3\frac{1}{4}$ in. w., 4. in d. at base, $8\frac{1}{2}$ in. h.

The model of a granary and yard. The yard door opens inwards, and is fastened by a sliding bolt. The granary is on the opposite side, and consists of three rooms, each having one door towards the yard, which opens by sliding upwards; the roof of the granary is flat, protected by a low wall forming a terrace, at the end of which is a covered shed, in which a man is seated. It is approached by a flight of steps, under which is a chamber with a sliding door, like those of the granaries. In the yard is a female standing over a kneading trough, making bread. The doors are painted red and white, the female yellow, the man red, the trough yellow. On one side of the trough is a hieratic inscription. *Wood.* 1 ft. 10 in. h. *Gournah.*

A wig of human hair. From the upper part, which is curled, depend long and tightly plaited locks; the colour is black with an auburn tinge. Wigs of this description appear on the heads of the female musicians in the fresco paintings of this collection, and on those of persons of high rank. 1 ft. $7\frac{1}{2}$ in. h. *Tomb behind the small temple of Isis, Thebes.*

Rectangular basket in which the wig was contained. The sides are formed of the kash or writing reeds of the Egyptians; the framework is of narrow sticks bound together by papyrus. *Reed.* 1 ft. 3 in. h., 1 ft. 7 in. b., 10 in. d.

A three-legged stand or table. On the upper surface is painted the uræus coiled upon the basket, the symbol of dominion; before it, on an altar, the leg of a victim and other viands; a vine behind, with red twigs and purple bunches of grapes; before the snake is a dedication to Amoun-ra and Osiris for Phaihroupi. *Wood.* 1 ft. 8 in. h., 2 ft. 3 in. b., 18 in. d. *Thebes.*

Curved fragments, perhaps from a chariot. *Wood.* 1 ft. 6 in. w., 7 in. h.

Various other fragments of chairs, stools, &c. *Wood.*

Div. 3. Large vases for domestic purposes; one painted like the Phœnician vases, representing two mystic birds with human arms, probably the phœnix, flowers of the papyrus, &c. *Arragonite, pottery, &c.* 1 ft. 6 in. to 10 in. h.

Circular tables or salvers. *Arragonite.* 1 ft. 7 in. dr., to 1 ft. 8 in. dr.

CASE M. OBJECTS OF DRESS AND TOILET.

Div. 1. A cap, of a single piece cut into network; at one corner, a ring of ivory. *Leather.* 1 ft. b., 1 ft. 1 in. l.

A workman's apron, narrowing towards the bottom, where it is cut

into a kind of fringe; two straps above, to pass round the body. There is a small purse-shaped pocket at the right side, secured by a flap and tongue; the edge is ornamented with a painted black border. *Leather*. 3 ft. 2 in. l.

An Egyptian tunic, without sleeves, sewn together by the selvage, which is blue. The bottom terminates in a kind of fringe. *Linen cloth*. 4 ft. 3 in. l. *Thebes*.

Basket, in which the above tunic was contained, formed of platted leaves of the palm tree. $8\frac{2}{3}$ in. h., 1 ft. 3 in. l. dr. *Thebes*.

A basket, in which were found many of the shoes and sandals in Div. 4. *Palm leaves*. 1 ft. l.

Div. 2. Rectangular cases bored with four cylindrical holes, to hold sthem or stibium, a bluish black metallic colour for the eyelids; one with the name of Amounmos attached to the royal builders and scribe. *Wood*. 4 in. h., $1\frac{1}{2}$ in. sq. at base.

Cases for sthem, in the shape of four cylinders united; the covers have moved upon pivots; pins for laying on the colour, some surmounted by a hawk. *Wood*. $3\frac{1}{4}$ to $2\frac{5}{8}$ in. h.

Vase for colour, in the shape of four cylinders united. Round it is an inscription for Oohmos or Amasis, a scribe. *Green porcelain or vitrified stone*. $2\frac{1}{8}$ in. h. *Memphis*.

Cylindrical reed-formed case for paint; in front, the name of Amentuonkh, the king, and his wife Onkhsen-amoun or Amnonkhsen. *White porcelain*. 6 in. h., $\frac{7}{8}$ in. dr.

Cylindrical cases with inscriptions, carved, or traced with black paint; one has the linen and string in which it was wrapped. *Reed*. $3\frac{3}{4}$ to 4 in. l.

Cylindrical cases for stibium. *Reed, wood, ivory, porcelain*. 7 to $2\frac{1}{2}$ in. l.

A case for paint; it represents a monkey standing erect, grasping with both arms a cylinder, with its cover of wood. *Ivory*. $3\frac{5}{8}$ in. h.

Studs for the hair. (See the mummy of Kotbti, Case O O.) *Ivory, arragonite, porcelain*. 2 to $\frac{3}{4}$ in. dr., 2 in. to $\frac{1}{4}$ in. h.

Cylindrical cases for paint, with capitals like the leaves of the doum palm; round the shaft are waving lines and fringes. One has a hematite pin. *Porcelain, wood*. 4 in. to $3\frac{3}{4}$ in. h.

A case for paint, in form of the head attire of Pnebto, the son of Horus. *Terracotta*. $3\frac{1}{2}$ in. h., $3\frac{1}{2}$ in. b.

A small vase or bottle for the sthem, in the shape of Khons standing erect. *Wood*. $4\frac{1}{5}$ in. h.

A similar vase, in form of a naked, beardless, girdled, Typhonian figure. $2\frac{1}{2}$ in. h.

Div. 3. A mirror; the handle in the shape of a lotus-sceptre surmounted by the head of Athor, the goddess of beauty, with an inverted crescent. *Bronze*. -1 ft. h., 1 ft. $\frac{1}{2}$ in. l.

A similar mirror, the handle in shape of a platted tress of hair surmounted by two hawks. *Bronze*. 5 in. h.

Mirrors with handles of wood; one terminates in the head of a hawk-headed deity, in a cleft; the other in a kind of standard, having at one end the right symbolic eye. *Bronze*. 1 ft. $1\frac{1}{2}$ in. h.

A mirror with ivory handle in form of a column with a lotus capital. *Bronze*. $10\frac{1}{2}$ in. h.

A mirror with a handle of porcelain, in form of a lotus-sceptre; on its upper surface is inscribed the name of Montheme, son of Hyktheth. *Bronze*. 10½ in. h.

Mirrors, without handles. *Bronze*. 6½ to 4 in. dr.

Circular mirror, in form of a box with its cover. *Bronze*. 6½ in. dr.

Vases for stibium. *Basalt, arragonite*. 4¼ to 1¼ in. h.

Covers from similar vases. *Calcareous stone, &c.*

A vase for stibium, held by a kneeling youth, shorn, with a single braided tress of hair from the crown, and wearing a long garment and belt round the loins. *Dark green steatite*. 3¼ in. h.

A vase for stibium, having in open work round the body, a frieze of nofre, feathers, and other symbols: the foot broken. *Green porcelain*. 2¾ in. h. *Memphis*.

Pins, for laying the pigment on the eyelids and brows, or used as hair pins; one terminates in hematite. *Bronze, wood, &c.* 6 to 3¼ in. l.

Similar pins having a bulb at one end only. *Bronze, wood, bone, &c.* 5½ to 2½ in. l.

Pins, &c., for the hair. *Arragonite, ivory, &c.*

Combs; one with a double row of teeth, another has the back terminating in the head of a cow. *Wood*. 4½ to 2½ in. l.

Div. 4. Sandals of various forms and sizes. *Leather, palm leaves, papyrus, wood*.

Sandals with high sides, approaching to the form of a shoe, with peaked toes; these sandals are provided with ankle and fore straps. *Leather, palm leaves*.

Shoes with round toes, red and green, most of them for children; they were found in the basket on Shelf I. in this Case, and are provided with ankle and fore straps, like sandals, but are probably of a later epoch. Shoes of similar shape are depicted on the covering of the mummy of a child [in Case B.B.] of the Roman era. *Leather*. 7½ to 5¾ in. l.

Shoes similar to the preceding, of coarser work and stouter material; one is of a late epoch, ornamented with stitched and cut ornaments, with eyelet holes behind for a lace, which has been fixed round the foot to a tongue on the ankle. *Leather*. 10 to 9 in. l.

CASES N TO T. VASES.

The peculiar application of the various forms of vases not easy of solution; some appear in the hieroglyphic texts to have been appropriated to particular substances,—as wax, wine, liquids, &c. The smaller and more elegant are supposed to have held unguents, perfumes, &c., for the toilet; the larger and coarser, domestic objects, as wine, eatables, &c., or to have been for preserving and mixing liquids; others again contain varnish, bitumen, &c. The materials of which they are fabricated are chiefly basalt, serpentine, arragonite, or oriental alabaster, various kinds of clays baked, a thoroughly vitrified brilliant porcelain and glazed terracotta. The pottery is occasionally painted when unglazed. The prevailing colours of the glazing are red, blue, and green.

The delineation of subjects on these vases is exceedingly rare; some few have inscriptions. The following appear most worthy of remark:

Case N. Div. 1. A large vase, inscribed in front with the prenomen and name of Thutmes or Thothmes III. (Mœris.) Another has the name of a different king, (vid. Rosellini, Tom. II. App. Tav. xv. 12.) *Arragonite*. 1 ft. $1\frac{1}{4}$ to $8\frac{1}{2}$ in. h.

Two vases, one having in front the prenomen Merenre, of an unplaced king prior to the 16th dynasty, with the standard and titles of the same monarch; the other, that of Re-Nofrekah, of the 15th dynasty, assumed by Sabaco, first king of the 25th dynasty; this prenomen, standard, and titles are also in a long cartouche upon the cover. *Arragonite*. 8 to $5\frac{3}{4}$ in. h.

Div. 2. Four ampullæ, each inscribed with a single line in hieratic writing. Two have their stoppers of unbaked clay, and another the linen bands by which they were held in their places. *Pottery*. $6\frac{1}{2}$ to $5\frac{1}{2}$ in. h.

A vase, inscribed with the name of Noubmet-hêt, a princess. *Arragonite*. $4\frac{1}{2}$ in. h.

Vases with flat circular bodies and short necks. The necks of three are formed by a lotus flower and two apes squatting; on the lateral bands are invocations to Amoun, Phtah, Nofre-Thmou, Khons, Neith, Pasht, to give happy years to the possessor; underneath the necks a rich ôskh, or collar. *Porcelain, pottery, &c.* $5\frac{1}{2}$ to 3 in. h. *Thebes*.

A vase, having on each side, in bas-relief, a figure of Horus advancing, similar to that in Case A. Div. 4. *Pottery*. $3\frac{1}{2}$ in. h.

Div. 3. A circular table inscribed with hieroglyphics, indicating that it belonged to Atkai, having on it eight vessels of various forms, each inscribed with his names and titles. *Arragonite*. 1 ft. $1\frac{1}{2}$ in. dr. *Abydos*.

Rectangular slab, with cavities to receive the following objects:—two bottle-shaped vases, one of alabaster, or carbonate of lime, the other of basalt; four alabaster crucible-formed vases; a peculiar shaped object, bifurcate at one end, of pink porcelain; a piece of basalt, with the place for another. *Calcareous stone*. $6\frac{3}{4}$ in. l., $4\frac{1}{2}$ in. d. *Abydos*.

A vase of a deep blue, with a wavy pattern of white and yellow; in front are two projections, perhaps intended to represent eyes. *Porcelain*. $6\frac{1}{2}$ in. h. *Memphis*.

A jar-shaped vase; the neck ornamented with a female face. *Arragonite*. 9 in. h. *Memphis*.

Div. 4. Unguentaria, or vases with long necks; one blue, and another of a speckled gray, with the neck twisted. *Glass*. $7\frac{1}{2}$ to 2 in. h.

Bottles, with a rude representation of a face and arms in bas-relief in front. *Pottery*. $7\frac{3}{4}$ to 6 in. h.

CASE O. VASES.

Div. 1. A jar-shaped vase, with three small handles on the neck; the linen by which the stopper was covered still remains. This vase has been painted of a yellow colour, with dark streaks, and highly varnished. *Painted pottery*. $11\frac{1}{2}$ in. h.

A bottle-shaped vase, with three small handles round the body; the ground is light brown, with red and black lines; between the handles are three emblems of life, with human hands and arms, in each hand a gom. *Painted pottery.* 10 $\frac{3}{4}$ in. h.

Small vase with four handles, of a blue colour, with a wavy pattern, light blue, white, and yellow, most probably used for the toilet. *Porcelain, or opaque glass.* 4 $\frac{1}{4}$ in. h.

Small diota of a light blue, with a pattern of dark blue and yellow; one handle and the neck broken. *Porcelain, or opaque glass.* 4 $\frac{1}{4}$ in. h. *Memphis.*

Div. 2. Small jug, richly ornamented, of a deep blue, with pattern of a yellow, white, and light blue colour;—a portion of the handle still remains. This vase is the most brilliant specimen of glass in the collection. *Porcelain, or opaque glass.* 3 $\frac{3}{4}$ in. h.

Double vases, connected together by the lip, handles, or body. *Painted pottery.* 4 $\frac{1}{4}$ in. h.

Vase, or rather lamp in shape of a small bottle, with a spout; above, six small circular holes. *Pottery.* 3 $\frac{1}{2}$ in. h. *Presented by J. G. Wilkinson, Esq., 1834.*

Div. 3. Vase of libations. The body has an oval hole through its centre. In front is a small spout, formed by the neck and beak of a bird. On it are symbolic eyes, symbols of life with human arms, emblems of stability, rosettes or flowers, &c.; these are traced in black and red; the upper part and spout is fractured. In this vase the beads and emblem of stability in Case R. 3. were said to have been found. *Terracotta.* 10 $\frac{1}{2}$ in. h.

Diota, of a deep red, having in front Onouris, or Mars, brandishing his sword, of grotesque proportions; apparently of late workmanship. *Terracotta.* 1 ft. 1 in. h.

Diota, with flat three-handled cover, fitting accurately; a line of hieroglyphics indicates that the vase holds "8 hno. and 6 parts." *Ar-ragonite.* 10 $\frac{1}{2}$ in. h. *Lower Egypt.*

Vase, of a deep blue, with a pattern of light blue, white, and yellow. *Porcelain, or opaque glass.* 3 $\frac{3}{4}$ in. h.

CASE P. VASES, LAMPS, ETC.

Div. 2. Vase, in form of a female standing and playing upon the guitar; the eyes, hair, and other parts, traced in black outline; a short single handle behind the neck. This vase contains some viscous fluid. *Red pottery.* 8 $\frac{1}{2}$ in. h. *Thebes.*

Head of a female, with the short matted hair peculiar to the era of the Bubastite dynasty, and Nubian features, from a similar vase. It appears to have been coloured black. *Red pottery.* 2 $\frac{3}{4}$ in. h.

Vase in shape of the ibex, standing upon a plinth; the mouth of the vessel placed on the back. Underneath, a small animal; all the legs broken and imperfect. The colour is green; it was probably used for the toilet. *Pottery.* 2 $\frac{3}{4}$ in. h.

Vase in the shape of a hedgehog; the aperture, with its short neck, is placed upon the back; before it a human head; of a green colour. *Pottery.* 1 $\frac{3}{4}$ in. h. *Thebes.*

Vase in the shape of a lamb lying down, of a red colour, and late epoch. *Pottery*. $3\frac{3}{4}$ in. h., $4\frac{3}{4}$ in. l.

Vase in shape of the fish *latus*. *Pottery*. $6\frac{1}{4}$ in. l.

Vases in shape of gourds, with single handles and short narrow necks. Upon one of a bright red colour is traced in black, for the offering of "Eian;" the other is of a yellower colour, and striped horizontally. *Pottery*. $6\frac{1}{2}$ to $4\frac{3}{8}$ in. l. *Thebes*.

Vases in the shape of the pine cone. *Pottery*. $4\frac{1}{4}$ to 5 in. h.

Vase, somewhat cylindrical, issuing from a flower, and decorated with the feathers of Osiris and other symbols. *Red pottery*. 6 in. l.

Div. 3 and 4. Lamps; on the upper part of some, a toad in bas-relief; others have an eagle, the head of a boar, bunch of grapes, two children, palm leaves, ornaments; on one is *Θεολογια Θεου χαρις*. These lamps are of the Greek and Roman era. *Terracotta*. 5 to 3 in. l., $1\frac{3}{4}$ to $\frac{5}{8}$ in. h.

Lamp found near the Pyramid of Aregah. *Green porcelain*. Presented by Col. Howard Vyse, and J. E. Perring, Esq., 1840.

Fragments from vases; one, which is from Coptos, has the figure of a hare traced on it; on another is a spiral ornament. *Pottery*. Presented by J. G. Wilkinson, Esq., 1834.

CASE Q. MUMMY COFFIN.

Inner coffin of "Harsontiof, divine father and prophet-priest of Amoun in Thebes," priest of Khons, Isis, Harsaphes, &c. The face is gilt, bearded, in a blue claft. There is a rich ôskh terminated at each shoulder by the head of a hawk in the ot; upon the neck an emblem of the soul and pectoral plate, representing the deceased adoring Osiris, Horus, Isis, and Nephthys, beneath the scarabæus with expanded wings, thrusting forward the disk, adored by cynocephali. In front is an invocation to Ra, the four genii of the Amenti, and Isis and Nephthys. On the feet are two jackals, the names and titles of the deceased. The interior of this coffin represents an astronomical projection. The large figure in the centre represents the heavens supposed to be touching the earth with her hands and feet. The disk of the sun is seen proceeding through it; and the whole is decorated with various inferior deities, the hippopotamic goddess, Te-oeri, here called Isis, established mother of the Panegyry of heaven, the busts of Isis, Sothis, Osiris, and Har-kie-mautf. At the sides are scenes representing the progress of the sun through the hours, the capture of the apophis, &c. Under the feet are two Asiatics bound, two jackals seated facing, and two figures of Osiris, having a finger on the top of the head, from which flows a stream of libations. The background is uncoloured, and the divisions are formed by horizontal and perpendicular lines of hieroglyphics, containing inscriptions relative to the various scenes, &c. On the lower half is Nepte, on her head is the hawk standard, symbolic of the Ement or west. See Mummy in Case RR. *Cedar wood*.

Figure of Osiris standing upon a plinth, with an ôskh round the neck, a pectoral plate on the chest, and scarabæus on the stomach. The body, plinth, and pedestal are covered with invocations of the deceased Harsontiof. The plinth on which the figure stands has in

front an excavation with a cover, on which is the hawk of Sochari.
Wood. 2 ft. h.

Hypocephalus, covered with stucco, belonging to Harsontiof; black, the figures in yellow, representing the boat of the god Kneph, or Chnouphis, and the quadrifrons ram-headed seated type of Amoun-ra. Round it is a border of hieroglyphics, containing the names and titles of the deceased. *Linen.* 6 in. diameter.

CASE R. BOWLS, CUPS, ETC.

Div. 1. Two stands for vases, hollow throughout, of a deep red colour. *Pottery.* 1 ft. $4\frac{1}{2}$ to 1 ft. $5\frac{1}{2}$ in. h.

Div. 2. Pateræ, or bowls, differing in depth and diameter. One bears an inscription relative to Atkai, from whose tomb many other of the objects in the collection have been taken. Others have rims. *Basalt, compact feldspar, arragonite, &c.* $4\frac{3}{4}$ to $2\frac{5}{8}$ in. h., $11\frac{7}{8}$ to $5\frac{7}{8}$ in. dr.

Jar-shaped vase containing the names and titles of the queen Amoun-ertais. *Compact feldspar.* 5 in. h.

Small flat vases or cups, in shape of the fish chæton; one has the scales and fins elaborately indicated. *Steatite, arragonite.* $4\frac{1}{4}$ to $4\frac{3}{4}$ in. l.

Vases or cups in the shape of the shell *Indina Nilotica.* *Arragonite.* 5 to $4\frac{7}{8}$ in. l. *Abydos.*

Small vases in the shape of wine-glasses. *Arragonite.* $4\frac{3}{8}$ to 4 in. h. *Abydos.*

Div. 3. Large blue bowl: on the exterior, fourteen petals of flowers in a dark blue outline; in the centre of the interior, a square divided into eight triangles, the alternate ones being darker, surrounded with undulating lines; from each corner arises a stem of five flowers of the lotus or papyrus, alternately placed. *Porcelain.* 10 in. dr.

Semi-globular bowl of a light greyish purple colour; round the rim is a horizontal line of hieroglyphics inlaid in white, containing the names of Rameses II. or III. (Sesostris.) Beneath, a horizontal band of circular flowers, and on the base, the calyx and expanded petals of the lotus, coloured light blue and red. *Porcelain.* 4 in. dr., $2\frac{1}{2}$ in. h.

Round cups, on feet; they have three holes in the lower part of the body, and were probably used for incense. *Terracotta.* $3\frac{1}{8}$ to $2\frac{1}{4}$ in. h.

Div. 4. Pateræ, having in the interior, traced in outline, a procession of Har, Atmou, Tafne, Seb, Netpe, Osiris, Isis, Thoth, and Nephthys; the bark of Ra, figure of Amoun-ra, Osiris, &c. *Pottery.* 11 in. dr., 3 in. h.

CASE S. VASES.

Vases of Greek manufacture, generally coloured of a light red, but occasionally dark, with the figures of birds and animals, Etruscan borders, and other patterns. *Pottery.*

CASE T. VASES OF BRONZE, AGRICULTURAL IMPLEMENTS,
VIANDS, ETC.

Div. 1. Bucket. On the sides are engraved, I. Osiris-Tattou, saluted by Isis and Nephthys, each pouring liquid from a vase of libations on the hands of two human-headed hawks, emblems of the soul of the deceased Petamoun, prophet of Amoun in Thebes, &c. II. Petamoun seated on a chair, in his left hand a pat sceptre; his name inscribed upon his dress; beneath the chair a cynocephalus. His son Presh-khons, or Pshar-khons, prophet of Amoun in Thebes, offers to him a libation and incense, over an altar before a table. The base is engraved in outline to represent the calyx and expanded petals of the lotus. *Bronze.* 1 ft. 3 in. h. *Thebes.*

Bucket. Round the body the following scenes are engraved in outline: I. Har, or Hôr, a deceased Theban prophet-priest of Amoun, scribe, and in charge of the living cynocephali of the temple of Khons, adoring Osiris, Har-si-esi, Isis, and Nephthys. II. Har or Hôr, seated by his wife Tnofrebais, receiving an offering of incense and libations from his son Petamoun, also a sacerdotal functionary. The base is engraved to represent the calyx and expanding petals of the lotus. *Bronze.* 1 ft. 10 in. h. *Thebes.*

Bucket, having the following scene engraved in outline. Osiris pethempantes, manifest of good, great god in Hat, seated on a throne; behind, stand Har-hat, great god lord of the heaven, hawk-headed; Isis in a tree, wearing the disk and horns, and holding a lotus sceptre; and Nephthys. Before Osiris is a priest holding an amschoir, and pouring upon an altar a libation, part of which the human-faced hawk catches in his hands. The hieroglyphical text, reading in a reverse direction, contains the names and titles of the deities, and adoration to them, and all the gods and goddesses of the district of Har-hat, for a deceased Rameses, prophet-priest of Thmèi, Isis, and the statues of the temple of Har-hat, &c., born of Esihbai, lady of the house, assistant priestess of Har-hat. At the top of the scene is a band of stars, and the base of the vase represents the expanding petals of the lotus. *Bronze.* 1 ft. 5¼ in. h.

Small buckets with subjects in bas-relief; an offering to Amoun-ra, Harsaphes, female and other deities, boats of the sun, &c. The base is formed of the calyx and petals of the lotus. *Bronze.* 3½ in. h.

Crucible-shaped vase, perhaps from an amschoir. The interior has been gilt. *Bronze.* 1¾ in. h., 3¾ in. dr. *Presented by J. G. Wilkinson, Esq., 1834.*

Simula. The handles terminate in the head and neck of a goose. *Bronze.* 1 ft. 10 to 1 ft. 1 in. h.

Semi-oval cup or bowl, remarkable for its rich and continued sound when struck. *Bronze.* 6 in. dr., 4 in. h.

Table of a long rectangular shape, with a handle or projection on two sides; in front a horizontal line of hieroglyphics, indicating that it belonged to Atkai. On it are several vases, stands, bowls, saucers, and a colander; they appear to be models of utensils. The table is perforated to receive some of the vessels. *Bronze.* 7 in. h., 1 ft. ½ in. b., 7½ in. dr. *Abydos.*

Vase; the body tapers to the base; the neck short, round the top

is a horizontal line of hieroglyphics, relative to the table of the person on which it was once placed. *Bronze*. $4\frac{1}{4}$ in. h.

Fragment of circular box, sculptured with bulls, &c. On the edges of the lips are two fixed rings for the handle. *Bronze*. $5\frac{1}{4}$ in. h., 3 in. dr.

Lamps; the handle of one is formed by the head of a dog issuing from a lotus calyx. *Bronze*. $2\frac{1}{2}$ to $1\frac{1}{2}$ in. h., $4\frac{1}{2}$ in. l.

Circular shallow vessels, the bottoms marked with deep concentric circles. *Bronze*. $4\frac{1}{2}$ to 5 in. dr.

Div. 2. Rectangular stand of two stages, composed of papyrus, supported at each corner by a column of cane. On each is a small duck, trussed; and on the bottom circular cakes of bread. *Papyrus and cane*. $8\frac{1}{2}$ in. h., $9\frac{1}{2}$ in. b., 6 in. dr. *Private tomb at Thebes*.

Basket containing the fruit of the doum palm, pomegranates, &c. 8 in. h.

Smaller basket wove in with colours, which has held fruit of the doum palm. $3\frac{1}{2}$ in. h.

Small elliptical basket which held fruit. 5 in. h., $7\frac{1}{2}$ in. b.

Fruits of the doum and date palm, fig, grape vine, carthamus, heglyg (persea), nebbek, ricinus, and pomegranate; wheat; barley; tares.

Flat circular, square, triangular, &c., cakes of bread or biscuits, the top of one stamped; some apparently made of barley. 6 in. l.

Div. 3. Horn of a cow or ox.

Rolls of prepared leather, of a maroon colour. 1 ft. 3 in. to 7 in. l.

Bitumen, and materials with which the mummies are embalmed.

Fragments of leaves of the papyrus, from a box or basket.

Roll of fibres of palm leaves or cane.

Blade of a sickle, fractured in three pieces, completely oxydized throughout. Traces of the wooden handle into which it has been fitted are visible upon the end. *Iron*. 11 in. dr. *Found by Belzoni under a statue at Karnak*.

Pick-axe used in agriculture, of a single piece. *Wood*. 2 ft. l.

Hoe, consisting of a handle into which is inserted a broad blade placed at an acute angle, and fastened by a cord of fibres of the palm.

Wood. 1 ft. 10 in. h.

Yoke or pole with a knob at each end, to retain the leather strap, which is stamped with concentric ornaments. *Acacia wood*. 3 ft. 6 in. l.

Eight steps of rough wood from a rope ladder; rope of the same ladder made of fibres of the palm; found in the tomb of Menephtah I.

Wood. 1 ft. 6 in. l.

Pair of tassels of fibres, united by a cord of the same material, perhaps put round the neck of an animal. *Palm leaves*. 5 in. l.

Div. 4. Fragments from the tomb of Menephtah I. (Akencheres), 12th king of the 18th dynasty. In front is the arm and anterior portion of the body of Thmèi, and part of her titles in hieroglyphics; before her is a line of small hieratic characters. At the edge is part of the prenomen and name of Menephtah I. *Calcareous stone*. *Presented by Col. T. P. Thompson*.

Fragments of vases covered with enchorial inscriptions. Similar pieces, bearing Greek inscriptions, appear to have been tax gatherers' receipts at Syene and Elephantina. *Pottery*.

CASE U. FRAGMENTS OF TOMBS, WEAPONS, ETC.

Div. 1. Fragments from the tombs, exhibiting the mode in which the sepulchres of the kings at Thebes are ornamented; they are part of hieroglyphic texts, cut in a slight bas-relief, and appropriately coloured. *Calcareous stone.*

Div. 2. War-axe, the head of bronze, riveted into a hollow handle of silver; at the end is a hole for a cord or strap. *Bronze and silver.* 2 ft. $\frac{1}{2}$ in. l.

Daggers with a short flat blade, grooved at the centre; the handles of ivory and silver ornamented with studs. *Bronze.* 11 in. to $9\frac{3}{4}$ in. l.

Sheath of a dagger, which has been gilt. *Wood.* 11 in. l.

Bows of small size. *Wood.* 4 ft. 9 in. to 3 ft. 6 in. l.

Heads of small spears or javelins; that of iron probably of later date; and one of the bronze has hieroglyphics on each side. *Iron, bronze.* 7 in. to $1\frac{7}{8}$ in. l.

Arrows with blunt tips; one has a flint head. 2 ft. $8\frac{1}{2}$ in. l., 2 ft. 4 in. l.

Triangular shaped arrow-heads. *Bronze.* $3\frac{5}{8}$ to $2\frac{1}{4}$ in. l.

Three bladed arrow-head. $1\frac{3}{8}$ in. l. *Presented by Dr. C. Leemans, 1836.*

Stick with a knob at one end, probably used for fowling. *Wood.* 3 ft. l.

Flat rib-shaped sticks, adapted for the same use. 3 ft. 8 in. to 2 ft. l.

Hollow cylinder inscribed on the sides with hieroglyphics, relative to Re-mai or Mai-re, the prenomen of Pipi or Apap, an unplaced monarch previous to the 16th dynasty, whose standard it bears. (See Leemans, *Mon. Egypt*, p. 146.) *Bronze.* 2 in. h.

Small knives, the blades of bronze, the handles of agate or of hematite. *Bronze.* $4\frac{7}{8}$ in. b., $3\frac{1}{2}$ in. l.

Blades from similar knives. $4\frac{1}{2}$ to $3\frac{1}{2}$ in. l.

Species of knife with lunated blade, the other end terminating in the fore part of an ibex wearing an ôskh inlaid with gold. *Bronze.* $5\frac{1}{2}$ in. l.

Blade of a knife, inscribed on one side with hieroglyphics, "Phtah-môs, great sotem and bearer of the standard of Victory." *Steatite.* $4\frac{3}{8}$ in. l.

Fragments of flints cut for arrow-heads or knives. *Silex.* 4 to $\frac{5}{8}$ in. l.

Knife of a late period and peculiar construction; it consists of a broad cutting blade, moving on a pivot at the end, and working in a groove by means of a handle. It is probably of the Arabic æra. *Iron.* $5\frac{1}{4}$ in. l.

Div. 3. Club or staff, in which are inserted a number of wooden spikes. *Wood.* 2 ft. 6 in. l.

Rough stick with a curved tooth turned upwards, fastened near the top by straps of leather of a maroon colour. *Wood.* 3 ft. $3\frac{1}{2}$ in. l.

Sticks, forked at one end. They are generally held in the hands of the chiefs or elders, and appear emblematic of office. *Wood.* 4 ft. 7 in. l., 2 ft. 3 in. l.

Staff, inscribed with a perpendicular line of hieroglyphics relative to Pimouimen, priest of the panegyries. *Wood.*

Staff, with a line of hieroglyphics, containing an invocation relative to Bai, son of Pitonro of Memphis, whose titles are recited at great length. *Ebony.* 2 ft. 1 in. l.

Cylindrical stick, terminating at one end in a fork like the gom. On it is the name of a superintendent of the bari of Amoun, and there is an ancient repair of a split part by a collar of bronze. *Wood.* 5 ft. 3 in. l.

Rope, double coil, with knots at equal distances. *Presented by J. G. Wilkinson, Esq., 1834.*

Handles of fans. *Wood.* 1 ft. 6 in. to 1 ft. 5 in. l. *One presented by J. G. Wilkinson, Esq., 1834.*

Pair of paddles, from the model of a boat; the handles terminate in heads of jackals. *Wood.* 2 ft. $4\frac{3}{4}$ in. l.

Mast and stays from the model of a boat. 3 ft. $3\frac{1}{2}$ in. l.

Small curved piece of wood, with loop of fibres of the palm; the fulcrum of a lever. *Wood.* $8\frac{1}{2}$ in. l. *Presented by J. G. Wilkinson, Esq., 1834.*

Head and end of a gom. The head on this sceptre has been termed that of the koucoupha or hoopoe. *Wood.* 5 in. l.

Div. 4. Fragments, on which are traced in black and red, a seated figure of Amoun-ra. On the reverse of one, a standing figure, indistinct. *Calcareous stone.* 1 ft. h., 8 in. b., to 9 in. h., 6 in. b. *Thebes.* *One presented by J. G. Wilkinson, Esq., 1834.*

Fragment, on which is traced a seated figure of Phtah. *Calcareous stone.* 9 in. h., 9 in. b.

Fragment; at the bottom is traced in black, a crocodile; above are portions of an inscription, apparently a dedication for a pharaoh to Amoun-ra. *Calcareous stone.* 1 ft. $4\frac{3}{4}$ in. h., 1 ft. 3 in. b. *Found in the tomb of Rameses IX., at Thebes.*

Fragment, on which is traced in black and red outline, Rameses VII. of the 19th dynasty, standing in a propylon, wearing a long transparent garment with sleeves and triangular unæated apron; on his forehead the uræus; his hands are held out to receive the address of an athlophoros and a priest, each bearing a feather sceptre. The text consists of an address to the king. *Calcareous stone.* 2 ft. 6 in. b., 1 ft. 7 in. h.

Fragment of a bas-relief. The Rameses II. or III. (Sesostris) standing, wearing the tosh; in his left hand a crook and three-thonged whip; in his right the emblem of the panegyries. Reverse, Athor or Merephthah, standing full-faced, raising both hands and arms; on her head the cornice and peculiar spiral attire; in her right hand a flower and two buds of the lotus, in the left two vipers; she wears armlets and bracelets. At one side of the edge is a boat. *White calcareous stone.* 10 in. h., 7 in. b.

Fragments with hieratic and enchorial inscriptions. *Calcareous stone.*

Fragments with processions and figures of deities, with vertical lines of hieroglyphics traced in black and red. *Calcareous stone.* *Tomb of Rameses VII.*

CASE V. COFFIN, BOARDS, ETC.

Coffin of Otaineb, a foreigner, in the form of a mummy; the face green, in a cleft, with a rich ôskh round the chest; on the breast is Netpe, between Isis and Nephthys, who kneel and place their hands over a signet; beneath, the judgment scene of the Amenti, and compartments representing the deceased in adoration to Thoth, who introduces him to the various deities to whom the different parts of his body are dedicated; as, the lips to Anubis, the elbows to Neith, the thighs to the eye of Horus, &c., &c.; on the upper part of the feet are two jackals and formulæ of adoration to Osiris and Anubis. On the sides are Isis and Nephthys adoring the standard of Osiris; two jackals on pedestals; the deceased adoring respectively Amset, Kebhsnauf and Isis; the mummy of the deceased supported by Anubis, attended by a female deity; the deceased adoring Anubis under his human and jackal type, and the genius Hapê, who is here termed Osiris. At the back is Osiris Tattou, and Meui, elevating with both his hands above his head a boat in which is seated Chnouphis, ram-headed quadrifrons, two blue arms issue from above to receive the disk, adored by cynocephali. On the sides beneath are emblems of life, stability, &c. The background is white. It is of a late era. *Wood.* 6 ft. h. *Presented by his Majesty King George III.*

Rectangular board prepared with a coat of stucco, smoothed. On it is traced in outline a figure of Thothmes III. [?] or Mœris, seated, holding in his right hand a mace, and in his left a long staff; before his face is his prenomen twice repeated. This part of the board is squared to facilitate the operations of the artist. To the right are a quail and seven arms inverted. *Wood.* 1 ft. 3 in. h., 1 ft. 9 in. b.

Rectangular board, having on one side ten horizontal lines of hieratic invocations to Thoth. On the reverse are eight lines of hieratic. *Wood.* 1 ft. $5\frac{1}{4}$ in. b., $10\frac{3}{4}$ in. h.

A similar board, with an hieratic inscription. *Wood.*

Fragments of hieratic inscriptions. *Calcareous stone.*

Fragments with Coptic inscriptions. *Pottery.*

Two brick of sun-dried clay, stamped with the prenomen of Rameses II. or III. (Sesostris.) *Clay.* *Presented by J. G. Wilkinson, Esq., 1834.*

CASE W. INSCRIPTIONS, INSTRUMENTS OF WRITING, PAINTING, ETC.

Div. 1. Fragments of hieratic inscriptions. *Calcareous stone.*

Div. 2. Rectangular pallets, with longitudinal grooves to hold the kash or small reeds used for writing; the well for colour in one is in the usual form of an oval or signet, towards the upper end of the pallet. *Wood.* 1 ft. 9 to 11 in. l., 2 in. b.

Pallet, with two kash, similar to the preceding; across the groove is inscribed the name of "Phtahmôs, deceased superintendent of scribes." On it are several lines of hieratic, those in front illegible; those on the back appear to be names, as Amoun-si, Thôoutemhbai, Phtahemhbai, &c. *Wood.* 1 ft. 4 in. l., $2\frac{1}{2}$ in. b.

Small rectangular pallet, with two kash and two wells for black and

red colour; it is inscribed in hieratic on both sides, the letters on the upper much effaced. *Ivory*. 1 ft. l., $1\frac{1}{2}$ in. b.

Rectangular pallet, with seven kash and two small wells in the shape of signets. On the upper surface is delicately engraved in outline, towards the top, the prenomen and name of Rameses the Great encircled by uræi. At the edges of the groove are invocations to Thoth and his companion, female deity. In the groove itself is a perpendicular line of hieroglyphics. *Wood*. 1 ft. $\frac{1}{2}$ in. l., 2 in. b. *Thebes*. Presented by *J. G. Wilkinson, Esq.*, 1834.

Colour box; large circular well with traces of red colour, and groove for brush. *Wood*. $9\frac{3}{4}$ in. l. *Thebes*. Presented by *J. G. Wilkinson, Esq.*, 1834.

Fragments of colour, dark and light blue, red, and yellow.

Basket which held the above. *Palm leaves*. $7\frac{1}{2}$ in. dr.

Basket containing three brushes made of fibres of the palm; their ends appear tinged with red colour. *Palm leaves*. 9 in. dr.

Hemispherical vase; the interior has apparently been gilt, and contains twelve balls of deep blue colour. *Bronze*. 4 in. dr., $2\frac{1}{2}$ in. h.

Small stands with ten or twelve crucible-shaped vases. *Blue porcelain*. 3 in. l., 2 in. b., $1\frac{1}{2}$ to $1\frac{1}{4}$ in. h.

Small slab with four small jars having spouts, probably for colours. *Blue porcelain*. $1\frac{1}{4}$ in. h., 3 in. dr.

Thick slab with eight excavations, having the appearance of a stand with eight vases; probably for colours. *Arragonite*. 8 in. b., 3 in. d., $5\frac{1}{8}$ in. h.

Rectangular slab, with cartouche-shaped excavation to contain colour, and a small muller or grinder. *Basalt*. $4\frac{1}{2}$ in. l., 3 in. b., 1 in. h. Presented by *J. G. Wilkinson, Esq.*, 1834.

Similar slab, flatter. *Slate*. 5 in. l., 3 in. b., $\frac{1}{2}$ in. h.

Mullers from similar slabs; one of wood may possibly have been used as a polisher; one found near the masonry of the Great Pyramid, at Abooseer. *Basalt, wood*. 3 to 2 in. h. Presented by *Col. Howard Vyse and J. E. Perring, Esq.*, 1840.

Circular seal or stamp, the handle in the shape of two lotus flowers; on the base, circular ornaments placed in concentric circles. *Stone*. $2\frac{3}{4}$ in. dr.

Three seals, on the base various ornaments. *Stone or terracotta*. $1\frac{1}{2}$ to $1\frac{1}{4}$ in. dr.

Rectangular seal with a circular handle, on the base various hieroglyphics. *Stone*. $2\frac{5}{8}$ in. l., $2\frac{1}{4}$ in. h.

Seal, with impression of a jackal. *Terracotta*.

Triangular seal, on which is a peculiar symbol. *Bronze*. $1\frac{7}{8}$ in. dr.

Oval impression of a seal, from a papyrus, containing the prenomen of Amasis-Neith-si, termed the child of Isis. *Terracotta*. $1\frac{1}{4}$ in. dr.

Three impressions of seals; a head of Pallas, a sleeping dog, and a hieroglyphic inscription. *Terracotta*. 1 to $\frac{1}{2}$ in. dr.

Another with Greek? characters. *Lead*. 1 in. dr.

Two flat rectangular slabs, with 7 hieroglyphic names of liquid substances; below each is a small hemispherical well. A set of vases with similar names above them is depicted on the foot of the rectangular sarcophagus of Monthophth. One has, besides, the name and titles of Atkai. *Arragonite*. $5\frac{1}{2}$ in. b., $2\frac{3}{4}$ in. h.

Div. 3. Cylindrical box for ink, with a chain for the pen case; the whole similar to the hieroglyphic symbol for scribe, or writing. *Bronze*. $2\frac{3}{4}$ in. h. box, $6\frac{3}{4}$ in. h. case.

Pugillares or wax tablets; a pair of flat rectangular boards, excavated to receive a coat of wax, leaving a narrow raised border all round for protection: one edge of each has two holes to receive straps for hinges. A few lines of Greek have been written with a style on one. With them is a short curved style approaching to the form of a crocodile, and a small signet of iron. *Wood*. $9\frac{1}{2}$ in. l., 5 in. b., $\frac{1}{4}$ in. d.

Instruments; broad blades with recurved handles; knives lunated at one extremity and hooked at the other; pair of pliers. Some of these were found in the same tomb with the board in Case V. *Bronze*.

Small square bag stamped with ornaments, flowers of the lotus, &c.; with it was found one of the preceding instruments. *Leather*. $7\frac{1}{2}$ in. l., $4\frac{1}{2}$ in. h.

Portrait of a Græco-Egyptian female upon very thin wood, with necklace, ear-rings and hair pin. The features are soft and young, the complexion red; border of the garment purple. *Cedar wood*. 1 ft. $\frac{1}{2}$ in. l., $2\frac{3}{4}$ in. b.

Fragment, portion of a calendar; the inscription is unfortunately imperfect. *Calcareous stone*. $8\frac{1}{2}$ in. h., 6 in. b.

Fragment inscribed with seven lines of hieratic, commencing with a date of the 7th year of Horus? in the 5th line is another date of the first of Payni, of the 21st year of the reign of Amenôf II. The back is also covered with a hieratic inscription, much effaced. *Calcareous stone*. 1 ft. 1 in. b., $6\frac{3}{4}$ in. h.

Moulds, with figures of Phtah, Ra, hippopotamic female deity, symbolic eyes, cynocephali, victims, pyramidal hieroglyphic, &c., in intaglio. *Terracotta*. 3 in. to $\frac{7}{8}$ in. l.

Div. 4. Bricks from the Pyramids of Abooseer, Dashour, and Reegah. *Clay*. Presented by Col. Howard Vyse and J. E. Perring, Esq., 1840.

CASE X. BOXES, BASKETS, SPOONS, AND BRICKS.

Div. 1. Flat rectangular baskets, platted. Similar baskets appear upon the backs of sepulchral figures equipped for agriculture. *Palm leaves*. 11 in. l., 8 in. h.; 8 in. l., 6 in. h.

Circular fragments of the bottoms of baskets, oval covers, and other pieces, some worked in colours. Various sizes.

Div. 2. Rectangular box with cover; the sides and lid veneered with ivory coloured red, in a border of white and red ivory and blue porcelain. At the top and sides is a stud or button, and part of the string or cord by which the lid was retained in its place. *Ebony*. $5\frac{1}{2}$ in. h., $7\frac{3}{4}$ in. b., 9 in. d.

Tall rectangular box, with four short legs and a cover, moving on a cylindrical wood hinge. *Wood*. $6\frac{5}{8}$ in. h., 5 in. b., 6 in. d.

Rectangular box or basket, with a flat cover of the same. *Papyrus*. 1 ft. sq., $9\frac{1}{2}$ in. h.

Rectangular box, with four legs, and curved cover; the sides and top have salmon-coloured panels with white and black borders; on the top

is a perpendicular line of hieroglyphics, " Sacred to the deceased navigator? Teh-kar." *Wood.* $10\frac{1}{2}$ in. h., 1 ft. $2\frac{1}{2}$ in. l., 8 in. b.

Rectangular box, with a pyramidal cover, veneered with ivory. On the panels in front are traced in outline inlaid with colour, a Cupid in a chlamys holding a flower, a bird of the finch tribe, and a water fowl; on the sloping panel of the cover a female, probably Venus, holding her long hair in both hands and throwing aside her garment; on the slip beneath, two finches and two water fowl. The panels of the other sides, both of box and cover, are uncoloured and carved in low relief, representing female figures standing or reclining with loose drapery. A similar figure is also upon the flat top. The edges are ornamented with beading. *Ivory.* $9\frac{1}{4}$ in. h., 10 in. sq. *Memphis.*

Small rectangular boxes, one with sliding cover. *Wood.* $5\frac{3}{8}$ to $3\frac{1}{2}$ in. l.

Bowl-shaped box with partitions. *Wood.* $6\frac{1}{4}$ in. dr., 3 in. h.

Small four-legged box with a vaulted cover; the sides and top inlaid with ivory stamped with circular ornaments. *Wood.* $6\frac{1}{2}$ to $3\frac{3}{4}$ in. h.

Tall cylindrical boxes; one contains a substance similar to flour. *Wood.* $5\frac{1}{2}$ to $3\frac{3}{4}$ in. h.

Portion of a similar box. *Horn.* 4 in. h.

Div. 3. Small vases or boxes; some have flat covers fitting exactly, and fixed by pins through projections at each side; the tops and edges carved. *Wood.* $4\frac{3}{4}$ to 4 in. dr., $2\frac{1}{2}$ to $1\frac{1}{2}$ in. h.

Box in shape of a long narrow gourd divided lengthwise. *Wood.* 7 in. l.

Semi-cylindrical box with a sliding grooved cover. On the sides and top are carved the ornament of an ôskh. *Wood.* $5\frac{1}{2}$ in. l. to $2\frac{1}{4}$ in. l.

Circular, egg-, and cartouche-shaped spoons. *Wood.* $5\frac{1}{2}$ to $3\frac{1}{2}$ in. l.

Shovel-shaped spoon, with handle. *Wood.* $5\frac{1}{4}$ in. l.

Spoon; the handle formed by the twisted stems and buds of a lotus flower. *Wood.* $6\frac{1}{2}$ in. l.

Spoon with an egg-shaped bowl and moveable cover. The handle represents flowers of the papyrus; the buds are of ivory stained pink. The whole is inlaid with colour. *Wood.* 1 ft. l. *Memphis.*

Spoons; the bowls representing the shell *Indina Nilotica*, which a human hand holds by the thumb and finger; the handles terminate in the head of a goose. *Ivory, wood.* $9\frac{1}{4}$ to 6 in. l.

Spoon, with a similar bowl, which the young Horus, standing upon a lotus flower, supports on his head by both hands. *Ivory.* $3\frac{3}{4}$ in. h. *Thebes.*

Spoon, with bowl in shape of a cartouche, and handle carved in bas-relief, representing a gazelle couchant. Within the bowl, two fish feeding on a water plant are traced in outline. *Wood.* 7 in. l.

Spoon or box in shape of a fish; on the tail and gill are two pivot holes for a moveable cover of the same material. *Ivory.* $6\frac{1}{2}$ in. l.

Box in shape of a water fowl; the head of the bird is reverted, and conveys to its back, which forms the cover, a small fish, which two young birds of the same species fly to devour. These three objects are fastened to it by pegs. *Ivory.* 7 in. l., 3 in. h.

Circular spoon; on the edge is a hawk with outstretched wings and

human face, and a lion or cynocephalus. The handle is formed by two twisted flowers and stalks of the lotus. *Wood.* 5 in. l., $3\frac{1}{4}$ in. b.

Cup, of a circular shape, with two cylindrical handles, probably used as a lamp feeder. *Wood.* $7\frac{3}{4}$ in. l., $3\frac{1}{2}$ in. b.

Spoons or boxes in the shape of geese; one swimming, the other trussed; this has a cover. *Wood.* $2\frac{1}{2}$ in. h., $5\frac{1}{4}$ in. l.; $4\frac{1}{2}$ in. l., $\frac{3}{4}$ in. h.

Spoon; the bowl is in form of the *latus fish*; a fox seizing it by the tail forms the handle. The body of the fish has a moveable cover, the pivot being placed in the eye; inlaid with blue paint. *Wood.* $10\frac{1}{4}$ in. l. *Memphis.*

Flat spoon with two bowls in shape of cartouches; the handle carved in open work, representing two standing figures of Onouris, holding the lion's tail in the left, and a club or sword in the right hand. In each bowl is a lump of wax of different colour. The carved parts have been inlaid with blue paint. *Wood.* 7 in. l., 4 in. b.

Spoon with circular bowl; the handle in shape of the fish *latus*, with two flowers of the papyrus at the mouth; the body is hollow, with a moveable cover, and a duct from the mouth to the bowl. *Wood.* $7\frac{1}{2}$ in. h.

Spoon; the bowl pear-shaped; the handle, carved in open work, represents Khons-Kneph standing between two stems of the lotus. The head ornament is horizontal, and on it are two birds. *Wood.* $7\frac{1}{2}$ in. l. *Thebes.*

Fragment, with a perpendicular line of hieroglyphics, sepulchral dedication to Anubis for Saph, royal bard superintendent of the bow. *Ebony.* $9\frac{3}{4}$ in. b.

Long panel, on it the names and titles of Amenof III. (Memnon.) *Ebony.* 11 in. l.

Div. 4. Sun-dried bricks, stamped on the upper surface with names, according to the edifice for which they were destined; some have the name of Thutmes or Thothmes I. (Chebron), A. C. 1796—1783. Thutmes or Thothmes III. (Mæris), A. C. 1762—1740; one with title of "the lord of strength." Amenof or Amunoph II. (Mephrrathutmosis), 1727—1702; and Thutmes or Thothmes V. (Tmosis), A. C. 1702—1692. *Clay and straw.* Presented by Lord Prudhoe, 1834.

Fragment of a brick from the Pyramid at Dashour. *Clay and straw.* 8 in. l., $6\frac{1}{2}$ in. b. Presented by Col. T. P. Thompson.

CASE Y. BASKETS, TOOLS, ETC.

Div. 1. Large oval basket of fibres of the palm tree. *Palm leaves.* 1 ft. $8\frac{1}{2}$ in. dr., 1 ft. 7 in. h.

Smaller oval basket. 1 ft. $5\frac{1}{2}$ in. dr., 9 in. h.

Mallets used by the Egyptians for hammers. *Wood.* $10\frac{1}{2}$ to 1 ft. 2 in. h. One found in masonry of Great Pyramid at Abooser. Presented by Col. Howard Vyse and J. E. Perring, Esq., 1840.

Long rectangular staves, inscribed with the name of Har-piphai. One has a sepulchral dedication to Phtah for the deceased. *Wood.* 2 ft. 9 to 1 ft. $4\frac{1}{2}$ in. l.

Bag, found in the larger basket. *Leather.*

Div. 2. Set of tools found in the same basket, consisting of—

Drill bow, 1 ft. $7\frac{1}{4}$ in. l.; saw, 1 ft. $3\frac{1}{2}$ in. l.; drill, 10 to 9 in. l.; chisel, 10 in. l.; bradawl, $5\frac{1}{2}$ in. l.; horn for water or oil, $8\frac{1}{2}$ in. l.; hone, 5 in. l.; roll of prepared leather, 6 in. b.; drill breast-plate, $2\frac{1}{2}$ in. l. With this set was one of the mallets in Div. 1.

Another set of tools found in the smaller basket, consisting of—

Adze, $6\frac{3}{4}$ in. h., $8\frac{1}{2}$ in. b.; chisel, 1 ft. $1\frac{1}{2}$ in. l.; drill, 9 in. l.; bradawl, $4\frac{5}{8}$ in. l.; knife, $9\frac{1}{4}$ in. l.; axe-blades, $9\frac{1}{2}$ to $3\frac{1}{2}$ in. l.; handles of tools, $3\frac{3}{4}$ in. l. With this set was a mallet in Div. 1. The blades of the preceding tools are of bronze.

Other tools or models:—

Chisels, $10\frac{1}{4}$ to $8\frac{1}{2}$ in. l.; saws, $11\frac{1}{2}$ to 11 in. l.; adzes, $6\frac{3}{4}$ in. h., $7\frac{1}{2}$ in. l.; hatchets, 1 ft. 6 to 1 ft. 5 in. l.

The blades have been attached by linen bandages and an adhesive composition. On the blades of the larger, and handles of the smaller tools, is generally inscribed a line of hieroglyphics relative to Thothmes III. (Mœris.)

Model of an axe or hatchet, painted with red, blue, and white stripes.

Wood. 1 ft. 7 in. l.

Knife-handle. *Wood.* 4 in. l.

Horn for holding water or oil. $4\frac{3}{8}$ in. l.

Handles of tools. *Wood.* $8\frac{3}{4}$ in. l. to $7\frac{3}{4}$ in. l.

Blades of chisels and other tools. *Bronze.* $4\frac{3}{4}$ to $4\frac{1}{8}$ in. l.

Nails. *Bronze.* $4\frac{1}{4}$ to $1\frac{1}{4}$ in. l.

Bradawl; the iron blade of a late era. *Wood.* $4\frac{1}{2}$ in. h. *Presented by J. G. Wilkinson, Esq., 1834.*

Tools or models, the peculiar use of many unknown; they consist of four slabs bevilled at the sides, four small trays, four large thin plates with spikes shaped like axe-blades, four smaller ditto, and two other different shaped blades, two small axe-blades. Several of these are inscribed with the name and titles of Atkai. *Bronze.* 5 to $2\frac{5}{8}$ in. l.

Div. 3. Hands on handles or fore-arms; one has the head of the terrestrial Athor at the wrist, full face; the others lotus flowers; their use is unknown. *Wood, ivory.* 1 ft. $1\frac{1}{4}$ in. to 7 in. l.

Fragments of a gorget, on which are delineated Typhon, the hippopotamic deity, lion's head full face, camelopard, frog, and jackal-headed sceptre. *Ivory.* $6\frac{1}{4}$ to 5 in. l., $2\frac{1}{2}$ to $1\frac{1}{2}$ in. b.

Fragments of open work carving; a person of high rank in adoration to Osiris. *Wood.* 8 in. h., $5\frac{1}{2}$ in. l.

Moulds, having figures of the bird Ben; one has an enchorial inscription on its reverse; another is coloured pink and green. *Calcareous stone.* $5\frac{3}{4}$ in. sq., $1\frac{3}{4}$ in. th., $4\frac{1}{4}$ in. b., 3 to $3\frac{1}{2}$ in. h., $1\frac{1}{2}$ to 1 in. th., $3\frac{1}{2}$ by 3 in. sq., by $\frac{1}{2}$ in. h. *One presented by J. G. Wilkinson, Esq., 1834; another by H. W. Diamond, Esq., 1837.*

Two rectangular pieces, fragments of a box or vase, bearing the name and prenomen of Tahraka, 3rd king of the 25th dynasty. *Bronze.* 3 to $3\frac{1}{2}$ in. sq.

Pedestal from a small statue, probably of Amoun-ra, bearing the name and titles of that deity, and a dedication from a bard. In front are the name and titles of a queen Neithakhor (Nitocris,) royal daughter of Psametk. *Bronze.* $4\frac{1}{2}$ in. l., 2 in. b., $1\frac{1}{8}$ in. h.

Semi-elliptical plate, on which is traced one of the Amenôfs in a chariot of two horses. *Wood.* $2\frac{1}{2}$ in. h., $2\frac{3}{8}$ in. b.

Pedestal; in front is the name and prenomen of Amasis-Neith-si, of the 21st or Saite dynasty, "the beloved of Thoth." *Ebony*. $2\frac{3}{4}$ to 1 in. b., 1 in. h.

Plates, pedestals, and fragments. *Bronze*. 4 in. l., 2 in. b., $\frac{1}{4}$ in. h., by $\frac{3}{4}$ in. cube.

Fragments; one filled with wood, another terminated by a crocodile surmounted by a lion-headed rod, another by a hawk-headed rod, under which stands the god Ra, another by the head of the koucoupha. *Bronze*. 8 to $4\frac{1}{2}$ in. h.

Rectangular plinths, with a leaf-shaped smoother? *Arragonite*. $1\frac{3}{8}$ in. b., $4\frac{1}{8}$ in. h., $\frac{1}{4}$ in. th.; $\frac{3}{4}$ in. b., $1\frac{1}{2}$ in. h., $\frac{1}{4}$ in. th.

Rectangular plinth, probably used for inlaying; on it is traced in outline, Amounemopt, a royal scribe, standing in adoration to Osiris. *Blue porcelain*. $6\frac{1}{2}$ in. h., $4\frac{1}{2}$ in. b.

An oval disk, having a seated female deity engraved in outline, the head surmounted by the disk and horns. *Bronze*. $2\frac{1}{2}$ in. dr.

Div. 4. Bricks of sun-dried clay, similar to those in Case X. Div. 4., stamped on the upper surface with the prenomen of Amenôf or Amunoph III. (Memnon.), A. C. 1692—1661; of Rameses III. (Sesostris), A. C. 1565—1499; of Ranofre, a deceased prophet-priest. *Clay*. 1 ft. 4 in. h., $6\frac{3}{4}$ in. b., $5\frac{3}{8}$ in. th., to $11\frac{1}{4}$ in. h., $5\frac{1}{2}$ in. b., $3\frac{7}{8}$ in. th. *Presented by Lord Prudhoe*, 1834.

Fragments of sun-dried bricks. *Clay*. *Presented by J. G. Wilkinson, Esq.*, 1834.

Reed from between the bricks of the walls of Sais. 1 ft. 1 in. l. *Presented by the same*.

Fragments of plaster, with a flower painted in fresco. *Presented by the same*.

Fragment of stucco, imitating syenite. 5 in. l. *Presented by the same*.

Smoothing tools; one has its own figure engraved on it. *Wood*. $9\frac{1}{2}$ in. l., $6\frac{1}{4}$ in. l., $2\frac{1}{4}$ in. h.

A cylindrical box containing stucco. *Wood*. 4 in. h., 4 in. dr.

Brushes for colouring walls, made of fibres of palm leaves. 7 to $5\frac{1}{2}$ in. l.

Part of a stamp for bricks, with incuse hieroglyphics, relating to a temple of Pthah. *Wood*. 8 in. l.

CASE Z. BASKETS, MUSICAL INSTRUMENTS, PLAYTHINGS, WEAVING TOOLS, ETC.

Div. 1. Oval, and circular baskets, covers, &c., made of the fibres of the palm tree, exhibiting various kinds of basket-making, some worked in ornamentally with colours. *Palm leaves*. 1 ft. 3 in. dr., 9 in. h., to 6 in. dr., 3 in. h.

Div. 2. Sistrum; the handle cylindrical, with the head of Athor on each side, surmounted by a cornice flanked by uræi with the *otf*, one of which is lost; at the top the full-faced head of the terrestrial Athor, placed on the symbol of resplendence, between disk-bearing lion-headed uræi and vultures holding signets in their claws; at the sides are Pasht-Merephtah, seated in a naos, and the female goddesses attached to the upper and lower regions, holding in each hand a sistrum. These

subjects are in outline, and are supposed to be stamped. There are three perforations for wires. *Bronze.* 1 ft. $4\frac{1}{2}$ in. h. *Temple of the Western lake, Karnak.*

Cylindrical handle of a sistrum, surmounted by the ægis of Athor; at the sides of the head, uræi in the shaa and teshr; on the top a lion, seated. *Bronze.* $8\frac{7}{8}$ in. h.

Sistra of a later epoch, with three or four horizontal bars or wires, the ends generally terminating in the head of a goose reflexed; one is peculiar for having its handle formed by a figure of Khons Kneph; they have cats with kittens at the top. *Silver, bronze.* $9\frac{1}{2}$ to $3\frac{1}{2}$ in. l.

Models of sistra; perhaps used as toys. The bodies of those in porcelain are in the form of a gateway. *Wood, porcelain.* $5\frac{3}{8}$ in. l.; 11 in. to 2 in. l.

A cat from a sistrum. *Bronze.* 2 in. l.

Small bells; one has at the top the head of Khons Kneph, Chnouphis, Anubis, and Merephtah. *Bronze.* $\frac{3}{4}$ to 1 in. l.

The top of a Bouni or harp, with 11 pegs; it has had 17 strings, which descended perpendicularly to a sounding board beneath. *Wood.* 1 ft. 4 in. l. *Presented by J. G. Wilkinson, Esq., 1834.*

Small harps, the base or sounding board round and concave, the handle cylindrical and inclined; they have had five strings. *Wood.* 1 ft. 9 to 1 ft. 5 in. h.

A small harp, borne, in playing, on the shoulder; the body or sounding part boat-shaped, and covered with parchment; the handle inclined, with 4 pegs; a bridge lies across the body of the harp, to which the strings were attached; a part of one remains. *Wood.* 3 ft. l., 16 in. h. *Thebes.*

Portions of flutes from the Northern Brick Pyramid at Dashour. *Reed.* *Presented by Col. Howard Vyse and J. E. Perring, Esq., 1840.*

Small pipe of reed, with 7 holes burnt in at the side, and two straws found with it. *Reed.* 1 ft. $3\frac{1}{4}$ in. to $8\frac{1}{4}$ in. l., straw 1 ft. 1 in. to $11\frac{3}{4}$ in. l.

Pair of cymbals, united by a band of linen. *Bronze.* $5\frac{1}{8}$ in. dr.

Div. 3. Doll, completely carved, but terminating at the thighs. The head has several holes, with pegs by which the hair has been attached. *Wood.* 8 in. h.

Flat dolls; one only has a head, with long hair of clay beads; the painting on the body represents the dress, collar, &c. Another has on one side the hippopotamic deity standing. *Wood.* $8\frac{1}{2}$ to 7 in. h.

Draughtsmen of various sizes, generally conical, with globular tops; one has the head of a cat. Others are pyramidal; under one is the figure of a jackal; these latter have been supposed to be signets. *Wood, porcelain, &c.* 3 to $\frac{1}{4}$ in. h.

Ball, stuffed with chaff; others platted. *Leather, palm leaves.* $2\frac{1}{2}$ in. dr.

Fish, the scales indicated by black paint. This object has been apparently used as a toy. *Wood.* $4\frac{3}{4}$ in. l.

Models of fruit, balls, eggs, &c., probably used as toys. *Porcelain.* $2\frac{1}{4}$ to 1 in. dr.

Div. 4. Linen cloth of various sizes and shades, and of different woof. Some of these pieces have a selvage of blue lines. 4 ft. to 1 ft. 6 in. b.

Specimen of Egyptian linen bleached by the modern process, and portion of the original. 6 in. b. *Presented by Mr. J. Dodd.*

Skeins of thread, some dyed of a reddish colour.

Spindles and knitting needles. *Wood.* $9\frac{1}{2}$ to 9 in. l.

Spindles, differently formed; one has a base of plaster, on which is inscribed the symbol "Ement;" others are wrapped in cloth; and one is attached to a skein of thread. *Wood.* 1 ft. 1 in. to 10 in. l.

Needles for sewing. *Bronze.* 3 to $3\frac{1}{2}$ in. l.

Hackle for dressing flax or hemp. *Wood.* 4 in. sq.

CASES A A., B B., C C. MUMMIES, COFFINS, ETC.

Div. 1. Mummy of a female? The outer bandages are of a salmon colour. On the head is a gilt mask, and ôskh round the neck, of linen, covered with stucco and coloured. 4 ft. $8\frac{1}{2}$ in. l.

Mummies unrolled and wrapped up again; one in a very incomplete state.

Large heads and pieces from coffins. *Wood.*

Coffin, formed of two different ones, the cover and upper end being of a far earlier epoch than the sides. On it is a deceased priest in adoration to Osiris, Amset, Sioumautf, and Kebhsnauf; Anubis; Hape, Sioumautf, and Kebhsnauf. The backgrounds are yellow and blue, the figures traced in red. The interior contains the mummy of a child. *Sycamore.* 2 ft. 11 in. l., 10 in. b., 1 ft. $\frac{1}{2}$ in. h.

Small rectangular coffin, in which is the mummy of a child, banded, and covered with painted linen, representing the mask of the deceased, Kebhsnauf and Sioumautf, &c. 1 ft. $7\frac{1}{2}$ in. l., $5\frac{1}{2}$ in. b.

Similar coffin, containing the mummy of a child. 1 ft. $7\frac{1}{2}$ in. l., $5\frac{1}{2}$ in. b.

Div. 2. Sides of a coffin; the right has on its exterior, commencing from the feet, Osiris Serapis seated in a propylon with Nephthys; Osiris hare-headed; Thmei and the deceased; the balance; Osiris; the burning pool, with the cynocephali, and two souls; the hawk of Sochari; four souls; Osiris seated with Isis and Nephthys, and addressed by a double snake-headed deity; two male and two female deities; Harpocrates; Sevek-ra; Ra and cat-headed deity in a propylon, &c. The whole is interspersed with hieroglyphics, and at the top is a horizontal line relative to the god Ra. In the interior Serapis seated and the winged serpent; Amoun-osiris, disk, flame and ass-headed deities; Osiris, the vulture of Maut, symbol of resplendence and of life; Amset and Sioumautf, with a feather-headed deity. *Sycamore.*

On the left side of the same coffin, from the head, the mummy of the deceased, supported by Tattou and deplored by Isis, in a boat drawn by three deities; Osiris Onnophris, Isis, and the Ouenti; the boat of Re drawn by blue and green jackals. Emblems and inferior deities, among which are Sochari-Osiris, Hape, Sioumautf, &c.

The background of the exterior is yellow, the figures and hieroglyphics blue, red, and green. That of the interior, maroon, with the dresses of the figures white. The whole is highly varnished in yellow. 5 ft. 10 in. l., 11 in. h.

Upper part of the cover of the coffin of king Men-ka-re, the Mycerinus or Mencheres of the Greeks, successor of Saophis II., and

builder of the third pyramid. The coffin has been made in shape of a mummy, but the head is wanting. In front are two perpendicular lines of hieroglyphics, an address to the deceased monarch. Beside this are various portions of the lid and chest of the same. *Wood.* 4 ft. 2 in. l. *Found in a chamber of the third pyramid by Col. Howard Vyse, 1837, and presented by him in 1838.*

The body of king Men-ka-re, found in a chamber of the third pyramid excavated by Col. Howard Vyse in 1837. It consists of part of the back, the pelvis, and legs, with a fragment of its woollen wrapper. *Presented by Col. Howard Vyse, 1838.*

Skull, and cloth made of wool, having formed part of a wrapper, from the quarries at Mokattam. *Presented by Dr. J. Bowring, 1838.*

Mummies of children. 2 ft. 8 in. h., 1 ft. 6 in. l.

Case for holding a fœtus, in shape of Osiris pethempamentes seated. *Wood.* 5½ in. h.

Finger, sheathed in silver or silver gilt, from a mummy. The colour may have been produced by the heated bitumen. 2¾ in. l.

Tress of hair in its bandages, from a female mummy. *Linen.* 2 ft. 3 in. l. *Thebes.*

Mummied hair from the heads of men, in oval cakes. 6 in. l.

Div. 3. Part of the lid of the coffin of Taihreri, a female; on it are depicted the judgment scene of the Amenti, the hawk of Sochari, the embalmment scene, Thoth, and other deities. The face is yellow, the background buff, the hieroglyphics blue on a white ground. In the interior is a figure of Netpe and the Hat or good demon. *Sycamore.* 4 ft. 3 in. h.

Mummy of Onkhsnofre, in its bandages; the exterior are of a buff pink or salmon colour, and upon them are the remains of beaded work of bugles, among which is a scarabæus, the four genii of the Amenti, &c. (See Coffin, Div. 4.) 5 ft. 1 in. l.

A small coffin, with a vaulted cover, containing the mummy of a Græco-Egyptian child. The body is covered with an external wrapper with a representation of the deceased in a toga, the hair crowned with a wreath, the feet in shoes, the left hand holding a branch of laurel, the right raised. On the top of the cover is a viper between two wreaths. At the bottom of the chest, within, a figure of Netpe. *Wood.* 2 ft. 8 in. l. mummy, 3 ft. 1 in. coffin.

The upper part of the inner coffin of Iriouirooui, son of Harsaphes, in the form of a mummy with ôskh; on it are two dedications to Osiris and Phtah-Sochari-Osiris, deeply cut. *Wood.*

Mummy of Amouniriou, a functionary of the court of the queen Amounertais, in its salmon-coloured bandages; the exterior has been covered with a network of blue porcelain bugles, among which are the scarabæus and four genii of the Amenti. 5 ft. 7 in. l. (See coffin, Div. 4.)

Tesseræ from Græco-Egyptian mummies, bearing inscriptions relative to Heras, Theanô, and Harpocraton. *Wood.*

Div. 4. Oskh from the outer covering of a mummy. It terminates at each end in the head of a hawk, surmounted by a disk, emblem of Re. *Linen covered with painted stucco.* 1 ft. 4 in. 10 in. h.

Inner coffin of the lady Onkhsnofre, daughter of Khonsmôs, in the form of a mummy, having a head-dress with vulture plumes. On it are the hawk of Chnouphra, Netpe, the standard of Osiris, the embalm-

ment scene, Osiris, Thoth, the four genii of the Amenti, and other deities; these are in compartments separated by vertical lines of hieroglyphics. Around the scenes of the lid is a snake crowned with the *otf*. The background is yellow, and the texts consist of sepulchral adorations to deities, and invocations addressed by them to the deceased. The face is coloured pink. *Wood.* 6 ft. 3 in. l.

Inner coffin of Amouniriou, officer attached to the palace of Amouertais or Amonates, royal daughter of a monarch named Kashto. The scenes upon this coffin very nearly resemble those on the last, having symbolic eyes, the goat standard of Chnouphra, the judgment scene of the Amenti, Thoth, Horus, genii of the Amenti, &c., who utter invocations to the deceased. The face is red and bearded. 6 ft. l.

CASE D D. ANIMAL MUMMIES.

Div. 1. Mummies of cynocephali or dog-headed baboons, animals sacred to Ioh-Thoth and Khons-*ioh*, and chiefly worshipped at Her-mopolis. One is partially denuded of bandages and exhibits the hair. 1 ft. 8 in. h., 1 ft. 7 in. h. *Thebes.*

Head of the cynocephalus denuded of bandages. 8½ in. l. *Thebes.*

Mummies of jackals or dogs with long, upright ears, emblems of Anubis. The outer bandages of one in strips. 1 ft. 3 in. to 1 ft. 1½ in. h. *Thebes.*

Head of a dog, animal sacred to and emblem of Anubis, enveloped in bandages. The outer covering has been gilt. 7½ in. h.

Head of a dog, unrolled. 5½ in. h.

Div. 2. Mummies of cats. The male was the emblem of the sun, the female of Pasht or Bubastis, the lion and cat-headed deity. 1 ft. 9 in. to 11 in. h. *Thebes.*

Wooden case in shape of a cat seated on a pedestal. The body contains some embalmed object, probably the mummy of that animal. 1 ft. h.

Cats, unrolled. 1 ft. 8 in. to 1 ft. 10 in. l. *Thebes.*

Various fragments of cats.

Div. 3. Mummies of bulls, consisting of the head and some of the principal bones of the body. On the forehead is the triangular mark of Apis, to whom all cattle were sacred. The breast of one is bandaged like the Etruscan border in dark and white cloth. 1 ft. 7 in. h., 1 ft. 11 in. l.; 1 ft. 8½ in. h., 2 ft. 4 in. l.; 1 ft. 6 in. h., 2 ft. 5 in. l. *Thebes.*

Heads of gazelles, impure animals, emblems of Typhon and Typhonian divinities. One is denuded of bandages. 9¼, 10½ to 11½ in. l. *Thebes.*

Div. 4. Mummy of a bull, as above.

Mummy of a small ram, sacred to and emblem of Amoun-ra, especially in his ram-headed type of Chnouphis or Kneph. Only the head and some of the bones are preserved. The body is formed by board and papyrus. The leg bones are wrapped up separately, and the bandages coloured yellow and pink with black lines for the eyes and mouth. 1 ft. 1 in. h., 1 ft. 8 in. l. *Thebes.*

Heads of rams, unrolled, or in bandages. 1 ft. 1 in. in l.

Mummy of a lamb. 11 in. h., 1 ft. 2 in. l. *Thebes.*

Head of a sheep.

CASE E E. ANIMAL MUMMIES.

Div. 1. Conical pots, with covers cemented by stucco, containing mummies of the ibis, sacred to and emblem of Thoth. *Red earthenware.* 1 ft. 4 in. l. *Sakhara.*

Mummy of the black ibis, unrolled, and two eggs. 1 ft. 1½ in. l.

Div. 2. Mummies of the ibis. 1 ft. 3 to 9 in. l.

Bones of the ibis. *Presented by J. G. Wilkinson, Esq., 1834.*

Eggs of the ibis. 2¼ in. l. *Presented by J. G. Wilkinson, Esq., 1834.*

Mummy of an owl? emblem of Buto or Maut, the companion of Amoun-ra. 1 ft. l.

Mummies of hawks, emblems of Ra and Horus; on the body of one a network of strips. 1 ft. 4½ to 11 in. h. *Thebes.*

Mummy of a small hawk, emblem of Ra, unrolled.

Div. 3. Mummies of crocodiles, emblems of Sevek, one of the forms of Seb, the Egyptian Chronos or Saturn, enveloped in bandages; one in a fine state has been unrolled. 1 ft. 5 to 1 ft. 6 in. l. *Thebes.*

Mummies of the Silurus or Bayad, emblems of Isis, enveloped in bandages and unrolled.

Div. 4. Mummies of fish enveloped in bandages in the shape of cakes.

Mummied lepidotus fish unrolled, in fragments.

Rectangular case with a lizard at top and two small rings, probably for a chain. It has a hole lengthwise, in which was found the skeleton of a small snake enveloped in cloth. *Bronze.* 2¾ in. l. *Thebes.*

Elliptical and conical mummied objects, one with the upper part neatly bandaged in pannelled ornaments of dark and light colour. 1 ft. 4 to 10 in. l. *Thebes.*

Mummies of snakes in their bandages, in the shape of elliptical cakes. 11 in. to 4 in. l.

CASE F F. (*not yet finally arranged in divisions*).

SEPULCHRAL FIGURES, AND BOXES.

These small statues or figures, deposited in small boxes or in the coffins of the dead, represent, with few exceptions, the body of the deceased in an Osirian dress, one hand holding an axe, the other a hoe, and cord of a small flat basket suspended on the back. The deceased thus equipped are prepared to enter the mystic abode of Hapi-moou, the Ioh-en-rou, or Elysian fields, where the soul is engaged in the labours of agriculture. It has been conjectured from the number found, and the variation of fabric, that they were offerings to the deceased by his relatives. They are all inscribed with a similar formula, differing considerably in extent, but containing the names and titles of the deceased, who is styled "illustrious Osirian."

Tall rectangular boxes with vaulted covers, each containing two sepulchral figures of Khons, superintendent of the navigators of the boat of Amoun-ra; the face and hands coloured white; there is a collar round the neck and a formula neatly carved around the body. *Wood.* 1 ft. h., 4 in. sq.

Sepulchral box for Har, prophet priest of Month, &c. The sides of

the box are covered with hieroglyphics traced in blue, containing the invocations of the deceased, one to the god Thmou. *Wood.* 11½ in. h., 11 in. b., 6 in. d.

Similar box, with a line of hieroglyphics round the sides in a red border, containing the name of Amouniri, and part of the formula engraved round the bodies of sepulchral figures. *Wood.* 1 ft. b., 5 in. h., 7 in. d.

Narrow rectangular boxes for holding sepulchral figures: on one is a deceased Harmas adoring Osiris, Isis, and Nephthys seated, or Ra and his companion Okisnaa; on another the name of Khonsaouonkh, son of Piskeetto, the son of Sa-amoun, the beloved of the gods and scribe of Amoun-ei; this has come from the same tomb as the mummy in Case V V. The background of these boxes is of a dark colour. *Wood.* 1 ft. 1½ in. h., 1 ft. to 1 ft. 2 in. l., 6 in. d.

Rectangular box with vaulted sides and flat cover, on which is a boat with a sail; round the sides is a dedication to Ra, to Phtah-Sochari-Osiris, and to Atmou. *Wood.* 7½ in. h., 10 in. b., 5 in. d.

Sepulchral box with two vaulted covers, representing Pairannou adoring, on one side, Osiris and Kebhsnauf, and on the other, Hape and Sioumautf. *Wood. Presented by Joseph Gwilt, Esq., 1838.*

Models of coffins, in shape of the human body mummied; one contains a sepulchral figure of wood which has been wrapped in linen bandages, and belonged to a prophet priest named Sithoth; another, a figure covered with a sepulchral dedication for Oohmos or Amasis, son of Phai . . . , and a third, which is of the coarsest execution, that of a person also named Amasis. *Wood, terracotta, sun-dried clay.* 1 ft. 2½ to 4½ in. l. *Presented by J. G. Wilkinson, Esq., 1834.*

Upper part of a small sepulchral model of a coffin in the shape of a mummy; round the head a fillet; the whole is painted red. *Linen covered with plaster.* 5 in. h.

Lower parts of sepulchral figures of Amenôf III. (Memnon), 8th king of the 18th dynasty; bearing the prenomens of the king. *Green basalt.* 3¼ in. h.

Sepulchral figures of Rameses V. (Rapsaches), 2nd king of the 19th dynasty; of the rudest execution, and coloured with wax of different colours. *Arragonite.*

Upper part of the sepulchral figure of a king; the name is wanting, and the face broken off; the hair is platted into a tail behind. *Arragonite.*

Sepulchral figure, in a long garment, with sleeves gathered behind, a triangular apron in front; hands crossed upon the breast, the right holding an emblem of stability, the left ♀. *Arragonite.* 8 in. h.

Sepulchral figure of a religious functionary, Petamounophth. *Dark marble.* 9 in. h.

Lower part of another. 3⅓ in. h. *Presented by J. G. Wilkinson, Esq., 1834.*

Sepulchral figure of an individual named Pthahmôs. *Dark marble.* 6½ in. h.

Sepulchral figures of Remai, or Maire; Reophth or Raophth; and Senmaut, son of Mahtphtah. *Calcareous stone.* 9⅝ to 5¼ in. h.

Upper part of a sepulchral figure; on the chest is the baieth, or human-headed hawk, emblem of the soul; the colouring of the whole,

which is pink and green, is peculiar and of a late period. *Calcareous stone.* $5\frac{1}{4}$ in. h. *Presented by H. W. Diamond, Esq., 1837.*

Sepulchral figures of Maâu, Mashiheth, N...nofre, and Tah-rot, females. *Calcareous stone.* $10\frac{1}{2}$ to $4\frac{1}{4}$ in. h. *The last presented by J. G. Wilkinson, Esq., 1834.*

Sepulchral figure of Menephtah I., 12th king of the 18th dynasty. *Blue porcelain.* $3\frac{3}{4}$ in. h. *Tomb of this monarch, Thebes.*

Sepulchral figures of Pnoute and Osorkon, athlophori; of "Amounophth or Amenôf, divine father of Amoun in Thebes, superintendent of the sacred scribes of the temple of Amoun, and prophet priest of Amoun in Thebes"; of Penamoun, superintendent of the sacred scribes; of Harhem . . . , divine father and sacred scribe of the divine abode of Amoun; of Pinofre, divine father of Amoun; of Kontates, chief prophet priest, born of Nebti-ei; of Psametik, prophet priest of Phtah; (the hieroglyphics in black upon the back;) of Penamoun, priest of the sanctuary; of Eishesiou, Theban priest; of "Phtahonkh, incense bearer of the temples of born of Ertob"; of Amoun-iri, beloved of the gods; (sacerdotal title; the hieroglyphics on the back;) of Shasouphtah, a royal purificatory priest, title peculiar to the Memphite and early dynasties; of Phai, superintendent of the abode of silver [treasury]; of Haroëri, a priest; of "Onkhhar, attached to the care of the South?" of "Seneith, superintendent of the archers of the king Psametik;" of Nofre-het-ra, born of Emphe, a prophet priest; of Phtahnishti or Phtha-nasht, superintendent? of the silver chambers; of Amoun-rokh; of Hahem-re; of Aahmos, Iohmes (Amasis); of Abtob, born of Taineb? of Hoau (white, the hieroglyphics in pink); of Bokenkhons; of Hapê, son of Naau; of Harô; of Harernaa, superintendent of the house; of Hmemaut; of Iri-har-rou? of Maau; of Onkhsenesi; of Outamahteh, son of Esiates; of Pene-niom, a functionary; of Petesi, born of Esieneimôs; of Petesi, son of Nishtipasht, a priest; of Phtah-pnofre, Theban priest; of Psametik, born of Neith-aur; of Ra-haa-het (Hophra), born of Sanoubtat; of Rônou, a female; of Boueimérai, a female; of Iriharoui; of Petamoun; of Phaihbai, a female; of Samerephtah, a female; of Tairot, daughter of Taiamoun; of Sanev, son of born of Tilitor, lady of the house. *Porcelain of various colours.* From 8 in. to $1\frac{3}{4}$ in. h.

Sepulchral figure, on which is inscribed "the illustrious Osiris, lord of innumerable days, king of eternity." *Light blue porcelain.* $6\frac{1}{4}$ in. h.

Sepulchral figures of Sasouesi, a female. *Green coloured terracotta.* 4 in. h.

Various sepulchral figures, without inscriptions. *Porcelain.*

Sepulchral figure of Sevekmôs, priest of Amoun. *Coloured brick.* $7\frac{1}{4}$ in. h. *Presented by J. G. Wilkinson, Esq., 1834.*

Upper part of a sepulchral figure of a man named Phreopt or Rephth. *Coloured brick.*

Sepulchral figure of Menephtah I. [Akencheres], 12th king of the 18th dynasty. *Wood.* $7\frac{3}{4}$ to $6\frac{3}{4}$ in. h.

Sepulchral figure of a Pharaoh, the head in a cleft with lappets in front, and a tail behind; on the forehead, the hole where the uræus has been inserted. *Wood.* 1 ft. $5\frac{1}{2}$ in. h. *Tombs of the kings, Thebes.*

Sepulchral figure of a Pharaoh, hair short, bushy, falls in a broad square tail behind; on the forehead, the hole for the insertion of the uræus; covered all over with bitumen. *Wood.* 1 ft. 2 in. h. *Tombs of the kings, Thebes.*

Sepulchral figure of Rameses VII., 4th king of the 19th dynasty; the head-dress has lappets before, and descends in a tail behind; in front is the usual formula. *Wood.* 1 ft. $\frac{1}{2}$ in. h.

Sepulchral figures of Amoun-ôs-men, a functionary; of Ouon-nofre (Onnôphris), priest of Khons; of Bokensouten, sacred scribe of the divine offerings of all the gods; of Khonshembhai, superintendent of pure offerings in the abode of Amoun; of Hôrhemhbai, a similar functionary; of Monthophth, priest of Monthra; of Amountebsou, guardian of the doors of the apartments of the royal palace; of Maimôs, auditor of truth to the god Phtah; of Kekemi, a guardian of the door, of Kanofre, of Taimerit, and Taishaa, females attached to the worship of Amoun; of Taia, lady of the house and priestess of the sun; of Thoueris, or Te-œeri, a female priestess; of Esi-nofre, Mehtkhons, Naamerit, and Tishau, females. *Wood.* From $10\frac{1}{2}$ to $7\frac{1}{4}$ in. h. *Four presented by J. G. Wilkinson, Esq., 1834.*

Sepulchral figure of Hesheere, priestess of the disk of the sun. This figure is formed of two longitudinal pieces; the hieroglyphics and hair are inlaid with yellow. *Ebony.* 9 in. h.

Various sepulchral figures, uninscribed, or with effaced inscriptions. *Wood.*

CASE G G. FIGURES OF OSIRIS.

Figures of Osiris standing, the head attire wanting. The inscriptions on the bodies are all of similar import, as are those on the plinths, which have in front an excavation to hold some embalmed object; sepulchral dedications are inscribed round the plinth of each figure. One bears an inscription relative to Phaishasht; another to Iri-har-rou, glorifier, scribe of truth, &c.; another to Petamoun, &c. *Wood.* 1 ft. to 11 in. h.

Plinths from similar figures; on the upper part of one are four horizontal lines of hieroglyphics,—the names and titles of Paikhons, purificatory priest of Horus Harœri, son of Petamoun, and Ter...enpasht, an assistant priestess of the temple of Amoun, lady of the house. *Wood.*

CASE H H. COFFIN.

Coffin of Irioui, son of Selsol, in the form of a mummy. The subjects depicted are analogous to those on the coffin of Otaineb in Case V.; viz., the judgment scene of the Amenti, and the different deities to whom the various parts of his body were dedicated, successively adored by the deceased. At the back is a figure of Athor. The face of the mummy is coloured red, the figures white, upon a dark ground; the figure of Athor yellow, red, &c. 6 ft. 6 in. h. *Bequeathed by Col. William Lethieullier, A.D. 1755.*

Figures of Osiris, having on the head the disk of the sun, and two tall plumes placed on the horns of a goat. These figures stand upon long rectangular plinths, in one of which is an excavation, with a cover

in form of a chest. Down the centre is a perpendicular line of hieroglyphics, containing in one the name of Asko, daughter of Iribouni. *Wood.* 1 ft. 10½ in., to 2 ft. 2 in. h. *One presented by J. G. Wilkinson, Esq., 1834.*

CASE I I. FIGURES OF OSIRIS.

Div. 1. Similar figures without plinths; one has an invocation to Osiris for an assistant priestess, Ta...neith, born of Tainreouenpasht; another for Sakhons, son of Gothi, a priest, and of Tainreouenpasht, lady of the house; another, the name of Petkhons, son of Tsensaph; another, that of Sahar, lady of the house, daughter of the priest of Onnôphris, Psametik, born of the lady Hthiauesi; another has the name of a priest, Petamôn. The names on the others are wanting. *Wood.* 2 ft. 2½ to 10 in. h.

Div. 2. Figures of Osiris of similar type and use, but much decayed; the inscriptions obliterated; some are covered with bitumen. *Wood.* 2 ft. 2½ in. to 1 ft. h.

Chest-shaped covers, from plinths; their upper surface is usually inscribed with a line of hieroglyphics, as "Sokari-Osiris, lord of the tombs," &c. One has the genii of the Amenti, and other deities, with Anubis unfolding the doors. *Wood.* 7½ in. l., 4 in. h., 2 in. d.

Head attires from similar figures, consisting of the red disk, emblematic of the sun; the two ostrich feathers, emblematic of truth; and the horns of a goat, indicative of fecundity. *Wood.* 8 in. h.

Div. 3. Figures of Osiris pethempantes, used as cases for papyri. These, which are always portions or copies of the great funeral ritual of the Egyptians, in hieroglyphic or hieratic characters, were either contained in the body of these figures, which divided in half, as in some specimens, or else in small rectangular cells, with a lid fitting to the body, and neatly covered with bitumen. *Wood, covered with bitumen.* 2 ft. 2 in. to 1 ft. 8½ in. h.

CASE K K. SEPULCHRAL BOXES, VASES, ETC.

Div. 1. Tall rectangular box with vaulted cover; the sides coloured with vertical stripes of blue, white, and red. *Wood.* 1 ft. 9½ in. h., 10½ in. sq. at base.

Rectangular box, adapted for holding sepulchral vases; it is black, and in front is a small tablet, with a dedication in white to Osiris, for Amounosonkh, priestess of Amoun. *Wood.* 1 ft. 3 in. h., 1 ft. 6 in. b., 9½ in. d.

Tall pyramidal box, with a cornice; at each side is traced in yellow upon a black ground a procession of inferior deities, in two rows, holding in their hands offerings or swords, and having above their heads perpendicular lines of hieroglyphics, the invocations addressed by them to the deceased Tôoutates. On the cover of the box are the two jackals, guardians of the upper and lower hemispheres, with the uræi of Sate and Soven or Seben. *Wood.* 1 ft. 6 in. h., 9 in. sq. at base.

Sepulchral tablet. 1. The Hat with pendent uræi in the teshr and of, jackals, &c. 2. The soul adoring in the bark of Ra, Ra Atmou, Tore, Thmèi, Tafne, and Seb—the boat steered by another deity. 3.

The deceased standing in adoration to Osiris, Isis, Nephthys, Harsiesi, Anubis and Macedo. 4. Adoration of the deceased son of the lady Taikoulheb, in horizontal lines of hieroglyphics. On the top has been a human-headed hawk with a gilt face. *Wood.* 2 ft. 5 in. h.

Flat sepulchral tablet, with an arched top, placed on its original stand; the subject traced upon it is in three divisions. 1. The Hat or good demon and the two jackals, emblematic of the upper and lower hemisphere. 2. Baieth, or the disembodied soul, adoring the boat of Chnoup, who is seated under an uræus, and attended by Thôout or Thoth, Har-hek, and other deities. 3. The deceased adoring Osiris pethempantes, Horus, Isis, Nephthys, Thoth, Anubis and Macedo; underneath, a row of symbols of life and of stability, and a dedication to Ra, Atmou, Osiris pethempantes, Isis, Nephthys, Macedo, and Anubis, "that they will give an abode provided with flesh, fowl, wine, milk, libations of water, bread, and incense, for the sake of the Osirian Taibesate, justified." The whole edge of the painting, with the exception of the base, is surrounded by a border of feathers; the whole is coloured blue, red, and green. *Wood.* 2 ft. h., 1 ft. 1 in. b.

Div. 2. Models of two sets of sepulchral vases with covers of a human, baboon, jackal, and hawk-head respectively, representing Amset, Hapê, Sioumautf and Kebhsnauf, the four genii of the Amenti. In front, a perpendicular line of hieroglyphics, containing the names of the genii. *Wood.* 1 ft. 2 in. h. to $9\frac{1}{2}$ in. h.

Sepulchral vase, third of a set, with the jackal-headed cover of Sioumautf. *Green porcelain.* $5\frac{1}{4}$ in. h.

Bags containing the saw-dust used in absorbing the moisture of the entrails; one is enclosed in a small cylindrical basket made of fibres of palm. *Linen.* $3\frac{1}{4}$ in. h.

Div. 3. Covers from sepulchral vases, representing a human head, indicative of the genus Amset. *Arragonite, terracotta, wood, &c.* 6 to $3\frac{1}{2}$ in. h.

Cover of a sepulchral vase, in the shape of a human head with a lock of hair on the right side, indicative of Horus. *Arragonite.* $4\frac{1}{2}$ in. h.

Covers from sepulchral vases, in the shape of a human head, indicative of Amset; the faces are occasionally painted yellow, the colour usually appropriated to females. *Terracotta, wood.* 6 to 3 in. h.

Div. 4. Covers from sepulchral vases, in shape of the head of the cynocephalus, indicative of Hapê. *Arragonite, calcareous stone.* $3\frac{1}{2}$ to $5\frac{1}{2}$ in. h.

Covers from sepulchral vases, in shape of the head of a jackal, indicative of Sioumautf. *Calcareous stone.* 5 to 4 in. h.

Similar covers, in shape of the head of a hawk, indicative of Kebhsnauf. *Calcareous stone.* 5 to $4\frac{3}{4}$ in. h.

CASE L L. SEPULCHRAL BOATS, CONES, ETC.

Div. 1. Model of a sepulchral boat, in the form of a canoe, conveying to its place of sepulture the mummy of a deceased female, laid upon a bier, under a canopy supported by four columns with lotus capitals. At the head and feet are two females in the act of lamentation, in imitation of Isis and Nephthys at the bier of Osiris, and at the left side stands a priest holding a roll of papyrus in his left hand, as if

reading. Before him is a large vase, and a similar one in the prow of the boat, with a lighted altar. A rower is seated in the stern; and there are two oars or paddles, with two high spars for rullocks, surmounted by the heads of hawks. At the prow are two symbolic eyes. The body is painted of a grass green; the prow and stern, of a deep blue colour. At the ends are two yellow projections, one straight and the other angular. *Wood.* 2 ft. $5\frac{1}{2}$ in. l., $10\frac{1}{2}$ in. h.

Model of a sepulchral boat, similar to the preceding; the attitude and head-dress of the female mourners is different, and there is no priest; in the prow is a table on which are a vase, haunch of a victim, and other objects; the blades of the paddles have two symbolic eyes painted on them. At the prow and stern are two yellow angular projections. *Wood.* 2 ft. 1 in. l., 1 ft. $\frac{1}{2}$ in. h.

Div. 2. Sepulchral tablet of Ha-heth-re, in three divisions. 1. The Hat or good demon and the two jackals. 2. The boat of Chnouphis or Knef adored by the deceased. 3. The deceased adoring Osiris, Har-si-esi, Isis, Nephthys, Thoth, Anubis, Macedo, and the four genii of the Amenti. Beneath, a dedication to Ra, Atmou, the gods resident in Poni, Osiris pethempamentes, Osiris lord of Rosat, Isis, Nephthys, Anubis, Hop-hioue (Macedo), Athor, and the gods resident in Noutehir, the names of the parents of the deceased being omitted. The whole richly coloured, and surrounded by a border representing feathers. *Wood.* 1 ft. 7 in. h., 1 ft. 1 in. b.

Sepulchral tablet; the deceased adoring Osiris, Isis, Nephthys, and the four genii of the Amenti standing on an expanded flower of the papyrus; above, the Hat; underneath, are seven horizontal lines of hieroglyphics; a sepulchral act of adoration for the deceased, "P . . hi-month, the true all devout before Osiris Onnôphris, king of eternity, the son of Amouneiri, all true before Phtah Sochari Osiris, the god supporting his father, and his mother Esi-eiri, lady of the house, all devoted to the god Thmou;" "thy soul to the heaven and the god Ra, thy body to the abode of glory and the god Seb." *Wood.* 1 ft. $2\frac{1}{2}$ in. h., $9\frac{1}{4}$ in. b.

Sepulchral tablet in three divisions. 1. The Hat and jackals. 2. Ra, Osiris, the four genii of the Amenti. 3. The deceased adoring Osiris, Horus, Isis, and Nephthys. Beneath, a sepulchral act of adoration for a deceased; the whole much obliterated. *Wood.* 1 ft. 4 in. h., $10\frac{1}{2}$ in. b.

Sepulchral tablet in two divisions. 1. The Hat or good demon; underneath, a dedication to the god Seb. 2. The deceased Gôtho, functionary of Amounei, in the act of adoration to Osiris Onnôphris, Isis, and the four genii of the Amenti seated on two papyrus flowers. Beneath, a dedication to Ra and Atmou for the deceased, son of Sanebbaitattou and the lady of the house . . . nasamoun. *Wood.* 1 ft. 1 in. h. *Presented by J. G. Wilkinson, Esq., 1834.*

Sepulchral tablet, in two divisions, of Psenesi, son of Amounates and the lady Esiates; both father and son are functionaries. 1. The Hat or good demon, jackals, symbolic eyes, and the scarabæus propelling a red disk. 2. The deceased adoring Sochari, Isis, and the four genii of the Amenti. Underneath, a dedication to Osiris only for the deceased. *Wood.* 1 ft. $3\frac{1}{2}$ in. h., 11 in. b. *Presented by J. G. Wilkinson, Esq., 1834.*

Sepulchral tablet in two divisions: 1. the Hat and the right symbolic eye; 2. the deceased adoring Ra and the four genii of the Amenti, and supported from behind by Athor, behind her, Anubis; beneath, a dedication to Ra for the deceased, Irioui, son of Aouonk. *Wood.* 1 ft. h., 8½ in. b.

Sepulchral tablet, representing a female offering to Ra, seated upon a throne on a pedestal of syenite. The hands and arms of the deceased alone remain. *Wood.* 10 in. h., 9 in. b.

Fragment of a square tablet, representing a priest adoring Osiris pethempantes seated. *Wood.* 1 ft. 3 in. h.

Tablet with two representations of a priest adoring Thmou or Athom, and another deity. *Wood.* 1 ft. 5½ in. h.

Small sepulchral tablet in form of a door. In the centre is a seated figure of Phtah; under the cornice, the Hat, and at the lintels, sepulchral dedications to Phtah and Ra, to give health and life to the deceased. At the back a dedication to Phtah for the deceased, Penoub. *Calcareous stone.* 9 in. h., 6½ in. b.

Sepulchral tablet representing Ra, hawk-headed, with the uræated disk, and Meresochari, uræus-headed, having the tall plumes of Amoun on her head; each holds a symbol of life and koucoupha sceptre. In the division beneath, two figures in the act of adoration. *Calcareous stone.* 5½ in. h., 4 in. b. *Presented by J. G. Wilkinson, Esq., 1834.*

Stèle representing in bas-relief a seated female, Tah-maau, holding in her left hand a lotus; her son Roau stands before her holding a like flower in his right hand; above are the two symbolic eyes and signet. *Calcareous stone.* 4½ in. h., 3½ in. b. *Presented by J. G. Wilkinson, Esq., 1834.*

Sepulchral stèle, carved on all sides. On the upper surface, in bas-relief, the head of the deceased to the right, traced in black, with a short square beard. Round the sides are dedications to Athor, for Nebement, son of a lady named Athor, and on the back, which has a horizontal ascending inscription partially carved, is the name of "Heau, auditor in the tribunal of truth," to the same deity. *Calcareous stone.* 7½ in. sq.

Div. 3. Sepulchral cones. The precise use of these objects is not known; they are of baked earth, red on the exterior, but black towards the centre. The base is inscribed with hieroglyphics in relief, which have been stamped, one specimen exhibiting a double impression. The inscriptions generally read from left to right, contrary to the usual manner: they have been supposed to be seals, but no impressions from them have been as yet discovered, and numerous specimens precisely similar have been found within, or over the door of, the same tomb. The hieroglyphics, which are always stamped upon the base, contain universally a dedication to the deceased, sometimes accompanied with figures.

Sepulchral cones, stamped with the names of Maimôs, prince of Kôsh or Koushi, (Ethiopia,) in the time of Rameses II. or III. (Sesostris); of Nofreophth (Nepherophes,) fourth prophet priest of Amoun; of the same and his wife Amounophth; of Nofreothph, chief scribe of Amoun, and his sister Maire; of "O . . . ou . . . and priest of Amoun;" of Tenrokas, a priest; of Ra-men-to-snab, military chief and first prophet

priest of Amoun ; of Saph, a military officer ; of Semau or Senmout, commander of the infantry (matoï) ; of O . . attached to the royal palace, and his brother Obi, who are represented in the act of adoration ; above is a boat ; of Amounemeian, superintendent of the balance of the abode of Amoun ; of Amounemhe (Amenemes,) superintendent of the cloth . . . of upper and lower Egypt ; of Ramentosnab, royal scribe, superintendent of the domains of upper and lower Egypt ; of Re or Ra, a similar functionary ; of Nofre-bai, female holding some office. *Red brick.*

Div. 4. Mask from a coffin ; the eyebrows, eyelids, small short beard, and string are of bronze. *Wood.* $8\frac{1}{2}$ in. l.

Fragment from the soles of the feet of the inner coffin of a mummy ; on it is the bull Apis running and bearing on his back a male mummy. *Wood.* 9 in. b., $7\frac{1}{4}$ in. h. *Presented by J. G. Wilkinson, Esq., 1834.*

Fragments of faces from the coffins of mummies. *Wood.* $9\frac{1}{2}$ to $5\frac{1}{2}$ in. h.

Beards from the same ; one is short and square. *Wood.* 6 to $1\frac{1}{4}$ in. h.

Feet from a mummy coffin. *Wood.* $6\frac{1}{2}$ in. l.

Hand from the outer covering of a mummy, painted yellow. *Wood.* 6 in. l.

Hand from a coffin, holding a cylindrical roll, probably a papyrus ritual ; a horizontal line of hieratic extends across the back of the hand. It is covered with yellow stucco. *Wood.* $7\frac{1}{4}$ in. l.

Lower part of the outer covering of a mummy, of coloured stucco. On it are delineated feet, sandals, feathered ornaments, &c. *Linen.* 9 in. b., $3\frac{3}{4}$ in. h.

Piece of the external covering of a mummy, taken from the back, covered with stucco, and painted white with red stripes. *Linen.* 1 ft. 4 in. h.

CASES M M. TO Z Z. MUMMIES, COFFINS, ETC.

Case M M. 1. Mummy of Pefaakhons, surnamed Onkhouonnofre, auditor of the royal palace, in its linen case ; the face red ; the head is in a cleft, on the crown of which is a scarabæus ; on the chest is an ôskh, and a ram-headed hawk with the disk and horns, flying with expanded wings and grasping in each claw a signet ; at the sides two pendent uræi with the shaa ; to the right, Osiris, Sioumautf, and Kebhsnauf ; to the left, Osiris, Amset, and Hapê. On the abdomen is the hawk of Ra with an unraated disk, and at the sides Isis and Nephthys, with disk and wings. Below, is the standard of Osiris, Selk kneeling on a symbol of resplendence, Anubis, and an inferior deity ; Neith, Anubis, and a similar deity. Underneath are two hawks ; and on the feet two jackals on pedestals ; on the sole is the bull Hapê or Apis passing over the symbol of the hill. 5 ft. $6\frac{3}{4}$ in. l.

Case M M. 2. Mummy of Penamoun, (coffin in Case D.,) priest of Amoun, in its wrapper of salmon colour bound by stripes of a light buff ; on it is the representation of an ôskh and pectoral plate with deities symbols of life and of stability, the Hat or good demon, &c. 5 ft. 6 in. l.

Case M M. 3. Outer linen case from the mummy of Harouonkh ;

the face bearded; the figures similar to those on that of Pefaakhons (1.), but with goats on standards, instead of vultures, before Isis and Nephthys. 5 ft. 10 in. l.

Case N N. 1. Inner coffin of Tatshbapem, daughter of Petkhons, porter of the temple of Amôn, and born of the lady Samaut. The head of the deceased is in a vulture-claft, the face flesh colour; on the chest an ôskh and a goat-headed hawk. On the body are the deceased holding a sistrum to Osiris, Amset, and Hapê, and to Osiris, Kebhsnauf, and Sioumautf; the hawk of Ra, the embalmment of the deceased, Anubis and Macedo, Thoth and Osiris hawk-headed, Neith and another female deity, the standard of Osiris, jackals, &c. On the soles of the feet is the bull Apis bearing the mummy of the deceased. Inside the lid is Netpe. The interior of the chest has emblems of stability and ♀, with hands elevated, supporting a yellow disk, shedding a triple stream of light. On the exterior of the chest is a standard of Nofre-Thmou, the titles of Anubis, and the Hat. The background is white, the figures in blue, red, and yellow, and the outside of the lid has been varnished. *Wood.* 5 ft. 9 in. l.

Case N N. 2. Mummy of Tatshbapem in bandages of a salmon colour, crossed by bands of light buff; on the exterior a net-work of blue and yellow bugles, and a scarabæus with extended wings worked in beads.

Case O O. 1. Mummy of Kotb-ti, female attached to the worship of Amoun, wrapped in buff linen, with bandages of maroon; the head is in its linen case, the face gilded, the hair black, in long vertical plats with lotus flowers on the forehead, and diadem round the head, with two locks attached by studs; at the side of the neck are the remains of a pendent fillet of flat blue circular beads; the arms are modelled in wood, and crossed upon the breast, having bracelets and armlets, with symbolic eyes; the fingers are covered with models of rings in carnelian, ivory, wood, gilt and silvered, &c.; on the middle finger of the left hand is the shell *Trochus Pharaonicus*, or "Wheel of Pharaoh," from the Red Sea, set as a ring; and on the thumb ring is inscribed Maut, mistress of heaven; on the mummy is a pectoral plate, representing Netpe kneeling, and the sepulchral scarabæus with gilt eyes, adored by Isis and Nephthys; another with the jackal of Anubis; and a copper model of the mummy of the deceased. The hair was found wrapped up in the cloth roll at the head of the coffin, and is exhibited in two trays at its sides. This mummy is apparently of a late epoch. 5 ft. 6¼ in. l.

Case O O. 2. Mummy-shaped coffin of Kotb-ti; she is represented partially bandaged, with the hands folded across the breast, each holding a bunch of lotus flowers. The groundwork is buff, with bands of a maroon red, representing the mode of bandaging the body; an ôskh round the neck, and pectoral plate with Osiris, Isis, and Nephthys; the face is a deep red, the hair black and yellow, with lotus flowers and diadem, as on the mummy. On the lid, Netpe is kneeling and winged, two symbolic eyes; Anubis and Macedo; Isis and Nephthys standing face to face; at the sides of the chest, Anubis, Thoth at the feet, Isis kneeling, and two emblems of stability. On the lid is a perpendicular line of hieroglyphics, containing the invocation of the deceased to Netpe, &c. *Wood.* 6 ft. 2¼ in. l.

Case Q Q. Coffin and mummy of Har or Hôr (Horus), incense

bearer of the abode of Chnouphis; on the lid is a pectoral plate with Thmèi; the goat-headed hawk; the judgment scene of the Amenti; Ra seated, and Osiris standing, attended by inferior deities; Netpe issuing from a syenite mountain, having on her head a disk and ostrich feather, and extending in each hand an emblem of water to a mummied figure of the genius Amset, supported by the symbol Ement with human arms; Osiris mummied, in the form of a sphinx, disked, placed on a bier, underneath which are various head attires: the judgment scene repeated; inferior deities of the Amenti with mummied bodies, and heads of a jackal, cow, snake, ibis, and viper; a blue human figure with a lizard in each hand; down the centre is the standard of Osiris, placed on seven bows, with a perpendicular line of hieroglyphics, dedication to Osiris for Har; the interior of the lid has a large figure of Sochari-Osiris; round the exterior of the chest are hieroglyphics painted in detail, containing an invocation to the avenging mother-goddesses; in the interior, a winged figure of Isis standing on bows symbolic of the Ethiopians; at the sides are Amset, Hape, and various inferior deities of the Amenti; at the foot of the mummy are two decapitated figures, one black and the other white, emblematic of the enemies of the Egyptians, the eyes and brows are inlaid in blue porcelain. *Wood.* 6 ft. 1 in. l.

The mummy is placed between the lid and chest; it is neatly bandaged in blue striped linen, with transverse bandages of yellow, pink, and reddish brown. 5 ft. 4 $\frac{1}{2}$ in. l.

Case R R. 1. Mummy of Harsontiotf, priest of Amoun in Thebes, holding various sacerdotal offices, (from the coffin in Case Q.) The upper part is enveloped by a linen covering of blue, with figures and subjects embossed and gilded; on the head is the scarabæus, thrusting forward the disk of Ra; Osiris Tattou, Isis, Nephthys, and the four genii of the Amenti; the cow of Athor; Amset, Hape, &c.: at the sides of the head are the hawks of Ra, and cartouche of "Osiris pethempamentes"; round the fillets are embossed lines of hieroglyphics; an ôskh round the neck, and a pectoral plate with Osiris, Isis, and Nephthys, seated. On the body are the barks of Ra and Kneph; the Hât with attendant trains of inferior deities and emblems of the soul; the embalmment scene; the standard of Osiris, saluted by Ra, Isis, Nephthys, Anubis, Horus, and inferior deities; Osiris pethempamentes, adored and saluted by Isis, Nephthys, and other deities; Osiris Tattou, Ra, Sochari, Moui, and other deities; Osiris Serapis as a sphinx, placed on a bier, attended by Har-si-esi and a soul, between six lion-headed female deities, personifications of Pasht or Tafne; Osiris, Isis, Nephthys, and other deities; emblems of life and stability, jackals, &c.; on the soles of the sandals are two bearded Asiatic captives with their hands and arms tied, short garments round the loins, and chlamys on the shoulders. 5 ft. 7 $\frac{3}{4}$ in. l.

Case R R. 2. Coffin containing the mummy of Pirotharnaaoubsh, incense bearer of the temple of Khons, and son of Hmekhons; on the neck, a pectoral plate with an ibis, ostrich feather, and small chest. On the lid is the hawk of Ra; the four genii of the Amenti; two hippopotamic deities; the judgment scene of the Amenti, between a cat and lion-headed deity, holding vipers; the standard of Osiris supported by Thoth, Horus, and Sate twice repeated, between the goat standards

of Chnouph ; above, the Hât ; Osiris under the type of the emblem of stability, saluted by Selk and Neith, between the hawks of Isis and Nephthys, and two symbolic eyes ; the vulture of Soven or Seben ; the boat of Ra, with the scarabæus in the disk, supported by Moui kneeling on a symbol of resplendence, and flanked by two uræi. In the various divisions are dedications and the names of the deities ; on the sides of the lid, dedications to Osiris, Isis and Phtah-Sochari-Osiris for the deceased. The sides of the chest represent the cow of Athor issuing from a mountain, and various inferior genii, and symbols. On the left side, Typhonian deities, animals, &c. *Wood.* 6 ft. 7½ in. l.

Case S S. 1. Mummy of Haremhbai, son of Petamoun and Peset, in a linen covering of open work ; the head in a cleft, and the face gilt ; on the crown of the head, a scarabæus with extended wings, and an inscription on the fillet ; the neck with a rich ôskh and pectoral plate ; below, a scarabæus, and a disk, in which is the name of Re, with cynocephali and souls, Netpe seated, winged ; the embalmment scene ; Osiris, seated, receiving the adoration of Anubis and another deity ; Sochari receiving similar homage ; Isis and Nephthys disked ; the four genii of the Amenti in their human form, holding sashes or bandlets ; Pasht or Tafne, lion-headed ; two jackals, seated, holding pat sceptres and having whips at their sides ; down the centre is an invocation of the deceased ; the head has been broken off the body for the purposes of plunder, and the bandages are much charred. Many of the figures and inscriptions are gilded. 5 ft. 5¼ in. h.

Case S S. 2. Inner coffin of Nentef or Enintef, an unplaced monarch previous to the 16th dynasty. The lid has been richly gilded, having on it a vulture, or hawk, the tail covering the feet, the body and wings, the body of the deceased, with ornaments of net work, and an ôskh ; the eye of bronze, on the forehead is a cavity for the insertion of the uræus. The lower part of the coffin is blue ; at the feet are Isis and Nephthys, kneeling upon altars ; there is a perpendicular line of hieroglyphics down the centre continued along the feet, the address of Isis and Nephthys to the king. The interior of the coffin is covered with bituminous matter, to which part of the exterior bandages were adhering. Fragments of these bear portions of a hieratic inscription, with which the whole of the body was probably covered ; they are too small to give any connected sense, but are apparently part of a ritual. 6 ft. 4 in. l.

Case T T. 1. Mummy in its bandages, much decayed, and the feet are broken off ; on it is bead-work in blue, red, yellow, and dark porcelain, representing a scarabæus, emblem of stability, &c., with strings of coloured bugles. 4 ft. 7½ in. l.

Case T T. 2. Mummy in its bandages, the outer covering of painted linen, and the mask gilt ; round the neck is an ôskh ; on it is Netpe, Osiris-Tattou, the four genii of the Amenti, the embalmment of the deceased by Anubis, uræi in the teshr and otf, and Isis deploring ; two jackals and the feet of the deceased. 4 ft. 10 in. l.

Case T T. 3. Mummy in its bandages ; on it a net of blue porcelain bugles and beads, and a square open work piece of painted linen, representing the embalmment scene, with Anubis, Isis, Nephthys, the four genii of the Amenti, six hawk-headed deities ; Netpe. 5 ft. 2½ in. l.

Case U U. 1. Mummy of the deceased in its bandages, of a light brown colour; the upper part is covered with a layer of pitch. 5 ft. $4\frac{1}{4}$ in. l.

Case U U. 2. The coffin of Penamoun? incense-bearer of Amoun-ei or Thebes; the face of dark polished wood, with a small square beard; the head in a rich claft, representing the wings and body of a bird, with a disk in front and two side ornaments; round the neck an ôskh with a pectoral plate representing To or Tore within a disk placed in a boat; the hands are crossed on the breast, each holding a roll of papyrus; below, the Hat or good demon; Osiris, Isis and Nephthys, disked, winged, and a hawk and ibis standard, emblematic of the South and North; a right symbolic eye on a basket, and a small pharaonic figure kneeling and offering the left eye on a basket; the deceased adoring Phtah-Sochari, under the form of Ra; and again under the form of To or Tor; before each of these deities is a stand with a panther skin; a mother goddess in a vulture-claft, adoring the pied bull of "Phtah-Sochari-Osiris, lord of the West," standing on a pylone in a rock of syenite; behind, a naos; the same deity adoring the pied cow of Isis in a similar scene; the four genii of the Amenti; two jackals; on the feet symbolic eyes, lion-headed winged uræi, &c.; round the sides of the chest, traced in yellow upon a black ground, a cat grasping a snake; the mummy on its bier, with the soul soaring above, placed in a sledge drawn by the cow of Athor, Anubis acting as driver; a temple on a mountain, above which are the symbols of the east and west; a lion-headed mummied deity, holding two swords; a man walking, holding in each hand a star? a winged object; the judgment scene; a deity with two snake-heads; the disk of the sun, encircled by the uræi of the upper and lower regions, descending below the solar mountain, and adored by a cynocephalus. 6 ft. $4\frac{3}{4}$ in. l.

Case V V. 1. Linen case from the mummy of a girl; the face yellow, the head in a claft, with a rich ôskh round the neck; below, the scarabæus and disk; in its hind legs a signet and emblem of stability, with a winged and lion-headed uræus at each side; the judgment of the Amenti; the chest of Osiris covered, on it the hawk of Month; jackals, &c. The figures are yellow and red, the background blue. 4 ft. $5\frac{1}{2}$ in. l.

Case V V. 2, 3. Coffin and mummy of Khonsaouonkh, keeper of the door, sacerdotal functionary in the worship of Maut, and scribe of the silver apartments (palace or treasury?) of Thebes; the face gilded; on a black ground are traced in yellow a pharaonic figure under the form of Horus, holding a sistrum, and adoring the jackal of Anubis; the deceased offering to Amenôf I., deified under the form of Osiris; the same, and his soul receiving the libations of Athor and the purifications of Thoth and Horus; Nephthys, Selk, Isis, &c., a dedication to Osiris and Sochari-Osiris for the deceased. At the sides of the chest are the cow of Athor, cynocephali, mummied, sphinx-shaped deities, &c. 5 ft. 9 in. l.

The mummy lies in the chest, enveloped in linen which has been richly gilded, and covered with pitch; on the chest, the goat-headed hawk or vulture; the hawk with expanded wings, a line of hieroglyph-

phics, wings of deities or birds, &c. These are indicated by the raised surfaces through the bitumen. 5 ft. 9 in. l.

Case X X. 1. Mummy of a Græco-Egyptian youth, in plain bandages from head to foot; over the face is placed the portrait of the deceased, full faced, the complexion red, the hair dark, eyes dark and full; the chest enveloped in drapery. The portrait is painted upon a thin piece of cedar. 5 ft. $1\frac{3}{4}$ in. l.

Case X X. 2, 3. Coffin and mummy of Onkhhapê, a sacred musician, son of Thothmèi, a door-keeper of Amoun, and of Taitnofreophth. The coffin consists of a flat board with a representation of Netpe, on which the mummy was laid, and a vaulted cover, with four square pillars at the corners. On one side of the cover, the deceased, mummied and laid on a bier placed in a boat drawn by two jackals, is lamented by Isis and Nephthys; above is a human-faced hawk, emblem of the soul; in front are two standing cynocephali, and the figure of the deceased, supported by a female deity; behind, the four genii of the Amenti standing, two cynocephali, and the deceased, as before. The hieroglyphics are invocations of the deceased to Osiris and others, relative to the boat; beneath are invocations to Re, Thmou, Phtah-Sochari, and Anubis. On the other side, the standard of Osiris, in a boat, having on one side a dark hawk, on the other a chest, is supported by Isis, Nephthys, Har-si-esi, Thoth, and Thmèi; it is drawn and saluted in front as on the other side, the deceased being held by the goddess Ement; behind, are Ra, Osiris, and two other deities. The hieroglyphics consist of invocations to Osiris and Thoth, to the boat and to Ra. Beneath are invocations as before; at the head of the coffin are two symbolic eyes. 6 ft. l., 1 ft. 8 in. b., 1 ft. 5 in. h.

Mummy of the deceased; the body is thin and tightly enveloped, the bandages of a dark brown colour; with it are two bronze cymbals, of the modern form. This mummy and case is apparently of the early part of the Roman epoch. 5 ft. $2\frac{3}{4}$ in. l.

Case Y Y. 1. Mummy of a Græco-Egyptian, or Roman, with the outer linen covering painted to represent the deceased in a toga with purple bands, the hands placed on the breast, the left holding flowers. Below is a disk, entwined by two uræi; on the crown of the head, the Hat, &c.; at the sides a pylone with uræated frieze, a Typhonian figure, &c. The lower part represents a net-work dress, the legs of the deceased, &c.; the feet wanting. The portrait is full face, and coloured red; the whole of a very late era. 5 ft. $1\frac{3}{4}$ in. l.

Case Y Y. 2. Coffin, similar in shape to that of Onkh-hapê. A Greek inscription beneath the cornice at one end, states that it is "the coffin of Tphout (or Tphous), daughter of Heraclius Soter and Sarapout, born in the fifth year of the reign of the Emperor Hadrian, on the twelfth of Athyr, deceased in the eleventh year, on the twentieth of Tybi, at the age of six years, two months, and eighteen days, and buried in the twelfth year, on the twelfth of Athyr." On the cover is an inscription terminating with the name of the deceased, and of her mother. On one side is the deceased adoring Osiris, Anubis, Kebhsnauf, and Hapê. Beneath is the boat of the sun, placed on the apoph or gigantic serpent, and drawn by three jackals; a similar scene is repeated on the other side, with Anubis, Sioumautf, and Kebhsnauf. On the bottom of the

coffin is Netpe in a tunic, necklace, ear-rings, &c. ; at the sides of the head, Isis and Nephthys, kneeling. 4 ft. 9 $\frac{3}{4}$ in. l., 1 ft. 7 $\frac{1}{2}$ in. h., 1 ft. 9 in. w.

Case Z Z. 1. Mummy of Mautemmen, female attached to the worship of Amoun, probably a priestess; swathed in such a manner as to exhibit the whole of the form; round the body, ankles, and upper part of the arms are broad bands, similarly ornamented: others, which are narrower, cross from the shoulders to the belt: the fore arms are swathed with narrow strips, like the animal mummies: round the loins is a short pink garment; a flower of the lotus is traced in red upon each knee, and the nipples are indicated by gilt wax: the external bandages are buff colour. The back of the head and the extremities of the feet are bared, exhibiting the hair and bones. 5 ft. 7 in. l.

Case Z Z. 2. Mummy of the Roman era, in its bandages. On the outer covering of linen is a painted figure of Osiris pethempantes full faced, covering the whole of the upper surface of the body; the face is pink, other parts red and yellow. At the sides of the head are Isis and Nephthys kneeling. 5 ft. 6. in. l.

Cases Z Z. 3. Mummy of a female named Cleopatra. On the exterior cover is a female figure with pendent arms; on her head, in a disk, placed in a boat, Ra seated; Isis and Nephthys kneeling; inferior deities; the deceased attended by Anubis; the four genii of the Amenti. This covering is secured by transverse narrow bandages; at the left side of the head is a wooden comb, with double rows of teeth; underneath the head, a circular wrapper. There is a perpendicular line of hieroglyphics down the centre of the body; the ground is cream colour. Round this mummy was a wreath of thin twisted gold tinsel with berries. 5 ft. 7 in. (Coffin in Case A A A).

CASE A A A. COFFIN, OBJECTS OF ATTIRE, SEPULCHRAL ORNAMENTS, AMULETS, ETC.

Coffin of Cleopatra, daughter of Candace, of the same family as Soter, (see Case B B B.) and similar in shape and design; on the arched part of the cover are judgment scenes before Ra and Osiris; the guardian genii of the halls of Noutehir; two rows of hawks, with human and animal heads; on one side is a boat, with the disk of Kneph, attached to a snake drawn by four deities; on the other, the boat with the disk of the right symbolic eye, attached to a snake drawn by three jackals; before the boats, the mummy of the deceased brought by Anubis to Osiris and Ra, attended by emblems of the soul, cynocephali, the genii of the Amenti, and inferior deities. At the ends are the emblem of the soul, the mummy of the deceased, the coffin watched by jackals, the Hat, the scarabæus with expanded wings, and the scarabæus in the boat adored by Isis and Nephthys. The interior represents the heaven, surrounded by zodiacal signs, but without the boat; at the sides of the head are four tortoises. The upper end has the hawk of Ra, and the lower, the cow of Athor, seated on a pedestal. On the sides are the twenty-four hours, as female figures, twelve on each side, each procession closed by a thirteenth female, perhaps personifications of the morning and evening star. The flat board on

which the mummy of the deceased was laid has a large female figure, with pendent arms, full face; at the sides of the head are Isis and Nephthys kneeling, &c. *Wood.* 5 ft. 10 in. l., 2 ft. 1 in. b., 1 ft. 11½ in. h.

Div. 1. Ear-rings, and pendants from ear-rings; two of these cylindrical, of the Arabic era; bracelets. *Gold, silver, bronze, porcelain, glass.*

Rings with a break in the circumference, probably objects of attire, but their precise application unknown. *Carnelian, jasper, composition, ivory, &c.*

Signets set with amulets or scarabæi; some bear the prenomen of Thothmes III. (Mæris), one, that of Rameses VII. or IX.; those of iron are of the Greek period. *Gold, electrum, silver, bronze, iron.*

Div. 2. Necklaces, bracelets, pendent ornaments, beads, &c.; one necklace has pendants in the form of the lock of Horus, fish, and cowries, with a cowrie-shaped clasp; another has flat beads representing deities, symbols, &c.; and a third, blue spherical beads capped with silver. Among the pendants are an ægis of Pasht, a soul, and the shell *Indina Nilotica*. *Gold, carnelian, jasper, amethyst, Egyptian emerald, &c.*

Div. 3. Finger rings, some in open work, with figures of deities, &c.; on the faces of several are the prenomen of Amenof III., the names of Amentuonk, Amoun-ra, &c. *Porcelain, ivory, mother of pearl, carnelian, bronze, &c.*

Div. 4. Pectoral plates, which were suspended from the neck by strings, or placed upon the exterior bandages of mummies; many are in the shape of a propylon, having in high relief the figure of a scarabæus ascending, placed in a boat, adored on each side by Isis and Nephthys; on the base of the scarabæus is generally the same formula as in sepulchral scarabæi. Many of these plates bear the names of the persons to whom they belonged; with them are some others having the head of Athor, scarabæus with symbolic eyes, deities, &c. *Basalt, arragonite, porcelain, vitrified earth, &c.*

Div. 5. Portions from the network coverings of mummies, consisting of scarabæi, wings, bugles, beads, &c. *Porcelain.*

Amulets, consisting of symbolic eyes, victims, feet of animals, necks of vipers, plumes, counterpoises of collars, heart-shaped vases, geometric symbols, &c. *Feldspar, lapis lazuli, hematite, steatite, porcelain, composition, &c.*

Div. 6. Sepulchral amulets and scarabæi. *Basalt, &c.*

In the narrow upright part of the Case are several sepulchral tablets, similar to those in Case L L. Div. 2.

CASE B B B. COFFIN, OBJECTS OF ATTIRE, AMULETS,
SEPULCHRAL ORNAMENTS, ETC.

Coffin of Soter, archon of Thebes, son of Cornelius Pollius and Philout, or Philous. On one side of the vaulted cover is the judgment scene of the Amenti; a ram-headed hawk at one end, and scarabæus, ram-headed, with four rams' heads, at the other. The other side represents Harsaphes, the boat of Sochari, Anubis, standards of the Ement, Month-ra, and Thoth, and a boat with a naos, drawn by Nephthys; at one end, a quadrifrons ram, and on the other a lion with a ram's head,

each winged and surmounted by the horns of a goat and feather. On the ends of the coffin are a winged scarabæus, two figures of Hat, the embalmment scene, the goddess Netpe, and the soul receiving the libations of Nephthys and Thoth, Isis and Horus. On the flat sides are the boats with the left symbolic eye, and the disk of Kneph, each attached to a disked uræus drawn by human-, hawk-, and baboon-headed deities, a train of inferior deities, &c. On the top is a gilt hawk of Ra, and lines of hieroglyphics. On the ledge of the upper end is Σωτηρ Κορηνηλιου Πολλιου μητρος Φιλουτος αρχων Θηβων ♀. In the interior of the lid Netpe; at each side of her, six signs of the zodiac, commencing with Leo on her right, and Cancer on her left side; the sun, personified as a boat with a disk, in which is Chnouphis, enters Leo; while another boat, in the disk of which is the left symbolic eye, enters Cancer. A scarabæus and two cynocephali are at the feet of the goddess; at the sides of her head are stars. The sides of the lid, within, have the twenty-four hours of the day and night personified as females, with disks upon their heads, enclosing stars; those of the night being probably indicated by dark, those of the day, by light coloured garments. A disk shedding rays of light, cow of Athor, with the Hat. On the four corner posts are invocations relative to the course of the soul. The board upon which the body was laid represents Netpe with a wreath upon her head, long hair, and pendent arms, with her feet placed upon the symbol of the hills; at the sides of her head, Isis and Nephthys kneeling and deploring. The background represents the heglyg, or perseæ; down the body is a perpendicular line of hieroglyphics, "I am the great mother," &c. The whole of this coffin is executed in Græco-Egyptian style; the background is white; that of the hieroglyphics salmon colour. *Wood.* 6 ft. 11½ in. l., 2 ft. 6 in. h., 2 ft. 4½ in. b.

Div. 1, 2. Amulets; the greater portion of them in the shape of the scarabæus, but many in those of animals (among which are Egyptian hedgehogs, and a human-headed hog); they have incised on their bases the figures of deities, sacred animals, the names of kings, short inscriptions, and other symbols or hieroglyphics. They have formed portions of necklaces, bracelets, rings, or other articles of personal adornment, and are classed according to the objects which they represent, with an internal arrangement following the rank of the symbols on their bases. Among the larger ones in Div. 1, will be found the prenomens of Re-Men-Ka, the names of Amenof II. and III., and Taia, wife of the latter; on the smaller in Div. 2, the figures and names of Amoun and Phtah; the names or prenomens of Amenemhe I., Osortasen III., Thothmes III. (Mæris), Amenof II. and III., Rameses II. or III. (Sesostris), an unplaced Amenof, Rameses IV. and Aahmes Neithsi (Amasis) of the 26th dynasty. *Amethyst, carnelian, dark and vitrified stone, porcelain, &c.*

Div. 3. Scarabæi completely carved; most of them having rings or perforations under the body. *Basalt, porcelain, carnelian, composition, &c.*

Div. 4. Sepulchral scarabæi, generally engraved with a prayer or formula, extracted from the ritual, relative to the heart or soul, of which it was probably the emblem. Considerable difference exists in the length of the inscriptions; but they often contain the name of the deceased. The inscribed sepulchral scarabæi are found between the

fold of the interior bandages and on the chest of the mummies. The inscription is on the base; but the names and titles of the deceased, figures of deities, &c., are found on the elytra and corslet. From the difference observable in the elytra, different species of the insect seem to be represented. Among these are a small green jasper scarabæus, set in a semi-oval plinth of gold, said to have been found in the coffin of king Enintef, but bearing the name of the king Savakem . . f; several bear the names of different functionaries; one has a heart-shaped vein, in which is engraved a bennou, and at its sides "the heart of the sun." In this division are other amulets, in form of a vase, human heart, two fingers of the hand, &c. *Basalt, serpentine, marble, hematite, steatite, &c.*

Div. 5. Bandlets from mummies. *Linen.*

Ornaments taken from the bodies of mummies; one has stamped upon it the figure of Osiris pethempantes, another the names of two early kings. *Gold, silver, tin, iron.*

Objects representing flowers, &c., from the beaded work of mummies. *Porcelain, &c.*

Sepulchral sandals; one of papyrus, with part of a Greek inscription; another has a figure of a foreigner bound hand and foot, with an inscription relative to all the enemies of the deceased being under the sandals. *Linen.*

Hypocephalus with Chnouphis quadrifrons, and other deities. *Linen.*
Presented by J. G. Wilkinson Esq., 1834.

Fragments embossed with figures of Osorkon I. or II., and Amounra Harsaphes. *Leather.*

Div. 6. Gilded ornaments of wood or linen, representing deities, &c., and portions of garlands from mummies.

Over Case A. Chnouph or Kneph, the ram-headed type of Amoun seated, wearing the shenti: the head attire of diminished proportion, and the statue of a very late era. *Bronze.* 2 ft. h.

Over Cases A and B. Outer coffin of Penamoun, prophet priest of Amoun, holding other sacerdotal offices. (See Case D. for the inner coffin, and M.M. for the body.) The face of the deceased is of a dark coloured wood, with short square beard and ôskh. Below is a dedication to Osiris, with the names, titles, &c., of the deceased, with the goddess Athor, bearing on her head the symbol of the west, on the interior of the lower half. *Wood.* 6 ft. 8½ in. h., 2 ft. ½ in. l.

Osiris pethempantes standing. *Bronze.*

Over Case D. Female, probably a deity, standing, her right hand clasped, her left flat and open. The whole has been gilded and covered with stucco. *Bronze.* 2 ft. 6½ in. h.

Over Cases F. to O. Casts of sculptures from the entrance of the temple of Bayt El Welle or Beit Oualli, near Kalabshee. They represent the exploits of Rameses II. over the people of Ethiopia, and the tribute brought by these people to the monarch. These casts, made in Nubia under the direction of Robert Hay, Esq., have been coloured by Mr. Bonomi.

Over Case S. Mummy case, scooped out of a single tree; the head in a feathered claft, the face black, the body covered by the wings and tail of a bird; on the chest a vulture; on the soles of the feet, Isis and Nephthys kneeling on altars; down the body is a dedication to Osiris. No name remains, but the case is apparently of the style and period of the coffin of king Nentef, in Case S.S. *Wood.* 6 ft. 1 in. h.

Over Case T. Coffin of Mauteneimas, or Mouteneimôs, female musician of the goddess Maut, daughter of Phaienkhons, priest, divine father of Amoun, and of a female named Otai; her face flesh colour, in a long cleft; beneath Netpe, a door with bolts, a ram and vase, symbolic of Chnoupis. The usual scenes are represented on the body. In front, a sepulchral dedication to Osiris pethempamentes. The ground of this coffin is yellow; the whole of coarse execution, and apparently of a very late epoch. *Wood.* 5 ft. 11 in. h.

Over Cases X. to F F. Casts of the sculptures from the entrance of the small temple at Beit Oualli, near Kalabshee. They represent the exploits of the monarch Rameses II. over the people of Asia, captives brought to the monarch, &c.

Over Case I I. Glass case containing the bones of a mummied ibis, with insects and other contents of the stomach, prepared by Sir Anthony Carlisle, in 1805. In the drawer are various fragments of bandages, &c., two of them of worsted. *Presented by Sir Joseph Banks.*

Over Case I I. Osiris onnophris; the eyes have been inlaid with some other material; the whole covered with stucco, and gilded. *Bronze.* 2 ft. 10 in. h.

Over Case L L. Osiris pethempamentes, standing, wearing the off. *Bronze.*

Over the door. Cross from the vestment of a Copt priest, supposed not to be later than A. D. 640; is gilt, and embossed with a double spiral pattern: the right arm of the transverse bar imperfect. *Leather.* 2 ft. 6 in. h., 1 ft. 6 in. b. *Medinat Abou.* *Presented by J. G. Wilkinson, Esq.,* 1834.

EXPLANATION OF EGYPTIAN TERMS.

CLAFI.—Head-dress with long lappets pendent on the shoulders and neck. See statue of Amenof III. Egyptian Saloon, 21. Coffins of mummies, &c.

GOM.—Sort of sceptre, terminating in the head of an animal called the koucoupha. See in the hands of a male figure in a fresco painting, Eg. Sal. 176, and object Egypt. Room, Case G. Div. 3, &c.

OSKH.—Semicircular collar or tippet worn round the neck. See bust of Rameses II. or III. (Sesostris), Eg. Sal. 19. Object in Case BB. Div. 4, &c.

OTF.—Crown of Osiris and other deities, composed of a conical cap flanked by two ostrich feathers, with a disk in front, placed on the horns of a goat. See fig. of Osiris, Case B. Div. 2, &c.

PSCHENT.—Cap or crown worn by deities and Pharaohs, composed of the shaa and teshr. See Pharaonic head, Eg. Sal. 15.

SHAA.—Conical cap, upper portion of the pschent, called also ouobsh or white. See statue of Menephtah II., Eg. Sal. 61.

SHENTI.—Short garment worn round the loins. See statue of Amenof III., Eg. Sal. 21. Bronze fig. of Amoun-ra, Egypt. Room, Case A. Div. 2, &c.

TESHR.—The 'red' cap, lower portion of the pschent, cylindrical cap, with tall inclined peak behind and spiral ornament in front. See fig. Neith, Egypt. Room, Case A. Div. 2. Amulets, Case A A A. Div. 5.

TOSH.—Royal military cap. Bas-relief of Rameses II. (Sesostris), Egypt. Room, Case U. Div. 4.

ETRUSCAN ROOM.

In this Room is a large collection of Greek and Etruscan Vases, which are at present in course of arrangement.

MEDAL ROOM.

At the farther end of the Tenth Room is the MEDAL ROOM, where are deposited a large collection of Coins and Medals, the basis of which was formed by the cabinets of Sir Hans Sloane and Sir Robert Cotton, and which has been from time to time enlarged by many valuable purchases and donations, but principally by the munificent donation of HIS late MAJESTY, KING GEORGE IV., by the bequests of the Rev. C. M. Cracherode and R. P. Knight, Esq., and the donations of Lady Banks and W. Marsden, Esq. It is comprehended under the three following heads :

1. Ancient Coins.
2. Modern Coins.
3. Medals.

The first of these heads consists of Greek and Roman coins.

The Greek coins are arranged in geographical order, and include all those struck with Greek characters, in Greece, or elsewhere, by kings, states, or cities, which were independent of the Romans. With this class are placed likewise the coins of free states and cities, which made use of either the Etruscan, Roman, Punic, Spanish, or other characters.

The Roman coins are placed, as far as it can be ascertained, in chronological order. They consist of the *As* and its divisions ; Family or Consular coins ; Imperial coins struck in Rome ; Imperial coins struck in Egypt ; Imperial coins struck with Greek characters, in different states and cities subject to the Romans ; Imperial coins struck in the Roman colonies ; Imperial coins struck with Punic characters ; and *Contorniates*.

The second head, comprising modern coins, consists of Anglo-Saxon, English, Anglo-Gallic, Scotch, and Irish coins, and likewise the coins of foreign nations. This class is arranged according to the respective countries to which the coins belong, those of each country being kept separate.

The third head, which comprises a class considerably more modern than either of those which precede it, consists of medals struck in our own country, and of those which have been struck abroad. These are arranged in the same manner as the modern coins.

EDW. HAWKINS.

June 23, 1842.

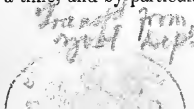
PRINT ROOM.

This Room, at the north end of the west wing upon the ascent of the staircase to the Egyptian Room, contains an extensive and valuable collection of Prints and Drawings, an important part of which were bequeathed by the Rev. C. M. CRACHERODE, and RICHARD PAYNE KNIGHT, Esq.

The contents of the MEDAL and PRINT ROOMS can be seen only by very few persons at a time, and by particular permission.

HENRY ELLIS.

June 23, 1842.



PRICES OF CASTS
FROM ANCIENT MARBLES, BRONZES, ETC.,
IN
THE BRITISH MUSEUM.

ELGIN MARBLES.

PEDIMENTS, ETC., OF THE PARTHENON.

Nos. [painted black.]		£	s.	d.
65.	Hyperion	1	10	0
	Right arm of Hyperion [separate]	0	10	0
66.	Heads of Horses of Hyperion	3	0	0
71.	Theseus	8	0	0
77.	Ceres and Proserpine	36	0	0
74.	Iris	12	0	0
72.	Torso of Victory	3	0	0
67.	One of the Fates	16	0	0
63.	The two other Fates	36	0	0
68.	Horse's Head	0	18	0
70.	Ilissus	8	0	0
76.	Torso of Cecrops	3	0	0
118.	Fragment of the Head of Minerva	0	5	0
75.	Fragment of the Body of Minerva	1	10	0
64.	Torso of Neptune	3	0	0
271.	Fragment of Serpent	0	3	0
69.	Torso of Victory without wings	3	0	0
73.	Fragment of Latona	5	0	0
143.	Torso of a Youth	0	5	0
79.	Torso of a Female Figure	0	5	0
294.	Torso of a youth, probably part of a Metope	0	5	0
156.	Fragment of a Female Figure	1	2	0
207.	Capital of a Column [one quarter]	1	10	0

METOPES OF THE PARTHENON.

11.	Metope	3	0	0
2.	—	3	10	0
8.	—	3	10	0
12.	—	2	10	0
15.	—	3	0	0
6.	—	3	5	0
4.	—	3	0	0
5.	—	3	0	0
13.	—	3	5	0

PRICES OF CASTS.

Nos.		£	s.	d.
7.	Metope	3	10	0
1.	_____	3	10	0
3.	_____	3	0	0
9.	_____	3	10	0
14.	_____	3	10	0
10.	_____	3	0	0

FRIEZE OF THE PARTHENON.

16.	In three pieces	4	10	0
17.	In three pieces	4	10	0
18.	In three pieces	4	10	0
18*.	[Cast from plaster]	0	13	0
9.	Single slab	1	10	0
19*.	[Cast from plaster]	0	13	0
20.	Single slab	1	10	0
21.	_____	3	10	0
22.	_____	1	0	0
24.	_____	1	10	0
23.	_____	1	10	0
34.	_____	1	10	0
98.	_____	0	4	0
177*.	_____	0	5	6
35.	_____	1	10	0
35*.	_____	0	15	0
37.	_____	1	10	0
178*.	_____	0	5	6
36.	_____	1	10	0
35**.	_____	1	10	0
38.	_____	1	10	0
25.	_____	1	10	0
26.	_____	1	10	0
27.	_____	1	10	0
28.	_____	1	10	0
29.	_____	1	10	0
30.	_____	1	10	0
31.	_____	1	10	0
38*.	_____	1	10	0
32.	_____	1	10	0
33.	_____	1	10	0
33.	Return	0	15	0
39.	Single slab	1	10	0
A 83.	[Cast from plaster]	1	10	0
A 85.	_____	1	10	0
A 86.	_____	1	10	0
A 87.	_____	1	10	0
A 88.	_____	0	15	0
40*.	Single slab	1	1	0
41.	_____	1	10	0
41*.	_____	0	2	6
38**.	_____	1	10	0

PRICES OF CASTS.

Nos.		£	s.	d.
46.	Single slab	1	10	0
50.	————	1	10	0
47.	————	1	10	0
52.	————	1	10	0
40.	————	1	10	0
42.	————	1	10	0
49.	————	1	10	0
45.	————	1	10	0
48.	————	1	10	0
43.	————	1	10	0
44.	————	1	10	0
51.	————	1	10	0
38***.	————	1	5	0
53.	————	1	10	0
54.	————	1	10	0
56.	————	1	10	0
55.	————	1	10	0
15*.	————	1	5	0
57.	————	1	10	0
59.	————	1	10	0
61.	————	1	10	0
60.	————	1	10	0
58.	————	1	10	0
96.	————	0	5	0
62.	————	1	10	0
62.	Return	0	15	0
	Frieze of Temple of Victory, in four pieces	5	0	0
	Caryatis, No. A 42	8	0	0
	Icarus, No. 306	3	10	0
	Bas relief, No. 213	0	7	6

PHIGALEIAN MARBLES.

The whole frieze in twenty-three pieces	47	10	0
Single slabs in proportion.			

TOWNLEY COLLECTION.

Venus, Room II. No. 8	7	0	0
Venus, Room III. No. 22	2	0	0
Pindar, Room III. No. 39	0	10	6
Actæon, Room III. No. 45	5	0	0
Bacchus and Ampelus, Room IV. No. 8	15	0	0
Faustina, Room VI. No. 32	0	8	0
Plautilla, Room VI. No. 39	0	8	0
Atys, Room VI. No. 41	0	7	6
Diomede, Room VI. No. 47	0	17	0
Muse, Room VI. No. 60	0	18	0
Jupiter Serapis, Room VI. No. 68	0	10	0
Faun, Room XI. No. 34	0	14	0
Clytie, Room XII. No. 12	0	16	0

PRICES OF CASTS.

	£	s.	d.
Torso of Venus, Phigaleian Gallery	0	15	0
Bassi Relievi, viz.			
Room III. No. 6	0	12	0
----- No. 10	0	10	0
----- No. 12	1	12	0
----- No. 14	0	10	0
----- XII. No. 1	0	12	0
----- No. 20	0	12	0
Leg of Table, Room II. No. 3	0	15	0
Leg of Table, Room XI. No. 24	0	10	6

BRONZES.

Apollo	1	1	0
Small Apollo.	0	8	6
Mercury	0	5	0
Do. in Bronze	5	0	0
Jupiter	0	6	0
Lamp	0	2	6

MISCELLANEOUS.

Rosetta inscription	0	7	0
Stone with inscription in cuneiform characters	0	3	0
Terra Cotta Vase	0	5	0
Cellini Cup	0	10	0

SCULPTURES AND INSCRIPTIONS FROM
PERSEPOLIS; viz.

No. 84.	0	10	0
No. 85.	0	10	0
No. 86.	0	9	0
No. 89.	0	4	0
No. 90.	0	10	0
No. 91.	0	10	0
No. 92.	0	8	0

Bust of Ray, the Naturalist	0	17	0
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Applications for any of the above-mentioned Casts are to be made in writing to the Secretary, from whom information may be obtained as to the terms upon which Casts of any other objects in the Museum Collections will be supplied.

The Formatore employed at the Museum will pack and despatch Casts for any part of the world, when so required; but the risk of breakage or other injury is, in all cases, to be borne by the Purchaser.







