July 14, 1846.

William Yarrell, Esq., Vice-President, in the Chair.

Prof. Owen communicated, as an 'Appendix to his Memoir on the Dinornis,' some observations on the skull and on the osteology of the foot of the Dodo (*Didus ineptus*).

After a brief summary of the history of this remarkable extinct brevipennate Bird, in which the reduced highly finished figure by Savery, in his famous painting of 'Orpheus charming the Beasts,' now in the collection at the Hague, was particularly noticed; and the recent discovery of the skull of the Dodo amongst some old specimens in the Museum of Natural History at Copenhagen was mentioned, he proceeded to demonstrate the peculiarities of the Dodo's skull, by a comparison of the cast of the head of the bird in the Ashmolean Museum at Oxford with those of other recent and extinct species of Birds.

The Dodo's skull differs from that of any species of *Vulturidæ*, or any Raptorial Bird, in the greater elevation of the frontal bones above the cerebral hemispheres, and in the sudden sinking of the inter-orbital and nasal region of the forehead; in the rapid compression of the beak anterior to the orbits; in the elongation of the compressed mandibles, and in the depth and direction of the sloping symphysis of the lower jaw. The eyes of the Dodo are very small compared with those of the *Vulturidæ* or other *Raptores*. The nostrils, it is true, pierce the cere, but are more advanced in position; this however seems essentially to depend upon the excessive elongation of the basal part of the upper mandible before the commencement of the uncinated extremity; the nostrils are pierced near the commencement of this uncinated part as in the *Vulturidæ*, but are nearer the lower border of the mandible in the Dodo.

The resemblance between the skull of the Dodo and that of the Albatros is chiefly in the compression and prolongation of the curved mandibles: there are no traces in the Dodo of the hexagonal space on the upper surface of the cranium of the Albatros, so well defined there by the two supra-occipital ridges behind, the two temporal ridges at the sides, and the two converging posterior boundaries of the supra-orbital glandular fossæ in front. There is no sudden depression of the frontal region in the skull of the Albatros; the nostrils are near the upper surface of the basal third of the beak in the Albatros; and the Dodo's cranium is thrice as broad in proportion to the breadth of the mid-part of the mandible as in that of the Albatros.

More satisfactory evidence of the affinities of the Dodo was obtained from a comparison of the bones of the foot, which have recently

been very skilfully and judiciously exposed by the able Curator of the Ashmolean Museum.

The tarso-metatarsal bone most resembles in its thickness and general proportions that of the Eagles, especially the great Sea-Eagles (*Haliaëtus*); it is much stronger than the tarso-metatarsus of any of the *Vulturide*, or than that of the Cock, the *Crax*, or any of the *Gallinæ* or existing *Struthionidæ*; the stronger-footed species of *Dinornis* most resemble it in the general proportions of the tarso-metatarsus, but greatly differ in the particular configuration of the bone, and in the absence, or feebler indication, as in the subgenus *Palapteryx*, of the articulation for the metatarsal bone of the back-toe. The relative size of this bone is greater in the Dodo than in any other known bird. The Eagles make the nearest approach to it in this respect; as also in the shape of the hinder supplemental metatarsal, the breadth of its distal end, and its peculiar twist backwards and outwards, so as to form a bridge or pulley against which the flexor tendon of the hind-toe plays. This half-twist of the rudimental hind-metatarsus is feebly repeated in the *Gallinæ*, but the bone is much less expanded at its lower articular end, especially in the *Crax*; whilst the more typical *Gallinæ* are further distinguished from the Dodo by their spur.

The Apteryx is the sole existing Struthious bird which possesses the hind-toe; but it is very much smaller than in the Dodo, and the supporting metatarsal bone is devoid of the distal twist and expanded trochlea. The upper end of the tarso-metatarsus of the Dodo is remarkable for the great development of its calcaneal process, from which a strong ridge descends, gradually subsiding, half-way down the bone. The posterior surface of the calcaneal process is broad, triangular, vertically grooved and perforated at its base. In the Eagle the corresponding calcaneal process is a compressed, subquadrate ridge, whose base of attachment is not much longer than the obtuse end, and this is neither grooved nor perforated. In the *Cathartes Californianus* the calcaneal process is thicker than in the Eagle, shaped more like that of the Dodo, with a ridge descending upon the metatarsus, but it has a double groove behind.

In the Common Cock the calcaneal process more resembles that in the Dodo than the Vulture's does, but it is not so broad.

With regard to the first or proximal phalanx of the hind-toe, that of the *Haliaëtus* is larger and broader, especially at its base, stronger in proportion to its length, but longer in proportion to the sustaining metatarsus.

In the Vultures the proximal phalanx is not only longer in proportion to the metatarsus, but is more slender than in the Dodo. The same bone is also longer and more slender in proportion to the small supporting metatarsal bone in the Cock, the *Crax*, and all other *Gallinæ*; in fact, the Dodo is peculiar among Birds for the equality of length of the metatarsus and proximal phalanx of the hind-toe. With regard to the three trochlear extremities of the principal coalesced metatarsals, the middle one in all *Gallinæ* is longer in proportion than in the Dodo, in which the inner one is nearly as long

as the middle one, the outer one being the shortest. In the Eagle the inner division is of quite equal length with, or is longer than the middle trochlea; the proportions of the three trochleæ in the Vultures corresponding best with those in the Dodo. Another character by which the Dodo resembles the Vulture more than the Eagle is manifested by the proportions of the proximal phalanx of the second toe (innermost of the three anterior ones); this is very short, and is often ankylosed to the second phalanx in the Eagles: it is almost as long in the Vultures as in the Dodo.

Upon the whole, then, the Raptorial character prevails most in the structure of the foot, as in the general form of the beak, of the Dodo, compared with Birds generally; and the present limited amount of our anatomical knowledge of the extinct terrestrial Bird of the Mauritius would lead to support the conclusion that it is an extremely modified form of the Raptorial Order.

Devoid of the power of flight, it could have had small chance of obtaining food by preying upon the members of its own class; and if it did not exclusively subsist on dead and decaying organized matter, it most probably restricted its attacks to the class of Reptiles, and to the littoral fishes, Crustacea, &c.

The author concluded by recommending search to be made for bones of the Dodo in the superficial deposits, the alluvium of rivers, and the caves in the islands of Mauritius and Rodriguez; little doubting that an active exploration would be as richly rewarded as similar investigations have been in the islands of New Zealand, by the recovery of the remains of the great extinct species of terrestrial birds which formerly inhabited them.

Mr. Lovell Reeve then read a paper containing "Descriptions of forty new species of *Haliotis*, from the collection of H. Cuming, Esq.":—

The genus *Haliotis* affords an unusual abundance of novelty, from the circumstance of it never having been selected for the subject of an illustrated monograph; the species are, moreover, well-defined, and may be easily determined by a careful examination of the variations of sculpture and arrangement of colours.

The *Haliotides* are interesting in form as being the most evolved and depressed of spiral shells, and they have been arranged with the Chitons and Limpets as exhibiting the nearest apparent affinity with the non-spiral Gastropods. They present also a singularity of structure in great measure analogous to the orifice in the shell of *Fissurella* or to the fissure in *Emarginula*. On the left side of the shell, in a direct curve parallel to the inflexed edge, is a row of equidistant perforations, made by the animal in its progress of growth for conveying the water to the breathing organs; the mantle is slit in that direction to a certain extent, and the water passes into the respiratory cavity through a tubular filament protruding from each hole. The number of pallial filaments being alike in the same individual throughout its several stages of growth, the shell mostly presents the same number of holes at all ages, filling up the hindmost orifice as a new

one becomes formed at the margin. The *Siliquaria* presents a similar modification of structure, and it has been also considered that the slit in *Pleurotoma* is in some measure analogous.

The internal surface of the 'Ear Shells' is lined with a bright pearly nacre, which in most species is of remarkable iridescent brilliancy, glowing with all the colours of the rainbow; the attention must, however, be directed to the outer coating of the shell, for the discrimination of species, and it is with this view that the figures in the foregoing monograph are devoted mainly to external sculpture. There is certainly a striking variation of character in the nacre of different species, but the pattern of the inner surface is merely an indentation of the outer. The number of perforations varies in different species, but may be said to correspond in different individuals of the same species; where an exception occurs, it is that there is sometimes one, or at most two, less in the adult than in the young state; that is, when the animal arrives at maturity it continues to stop up one or two of the perforations in advance of any new one.

It is a curious circumstance in the geographical distribution of the *Haliotides*, that few, if any, are to be found where Chitons abound; as if they exchanged places to a certain extent in the two hemispheres. There are a few species from California, but along the western coast of South America, where Chitons are most abundant, not any are found, and only one small species, the *H. pulcherrima*, at any of the islands of the Pacific. They inhabit the coasts of China, Japan, Ceylon, Mozambique, Cape of Good Hope, Borneo, and the Philippine Islands; but the greater number of species, and the most remarkable, are from New Zealand and the continent of New Holland, displaying all the peculiarity of design which invariably characterizes the fauna of those isolated regions. With the well-known *Haliotis tuberculata* of the Channel Islands, all are familiar. It is, however, a circumstance worth noting, that although such near neighbours, and comparatively abundant, especially at the island of Jersey, it is rarely collected on the coast of England.

The *Haliotides* are found at low water, attached to the under surface of masses of stone, and they fix themselves with great force to the rocks, by suction, on the least alarm.

HALIOTIS SPLENDENS. *Hal. testâ ovatâ, convexo-depressâ, undique spiraliter liratâ, liris crebris regularibus subobtusis, nonnullis aliis latioribus; foraminibus quinis perviis, extus ærugini-viridescente, articulis albicantibus prope spiram interdum notatâ, epidermide fibroso fusco indutâ, intus cæruleo viridique, nigricante nebulatâ, pulcherrimè iridescente.*

Hab. California.

HALIOTIS JAPONICA. *Hal. testâ ovato-oblongâ, subplanulato-convexâ, liris tenuibus æqualibus spiraliter funiculatâ, concentricè rugoso-plicatâ, plicis conspicuis lamellaformibus irregularibus; foraminibus quinis sensive perviis; luteo olivaceo-fusco viridique undique pulcherrimè variegatâ.*

Hab. Japan; Dr. Siebold.

HALIOTIS COCCINEA. *Hal. testâ oblongo-ovatâ, spiraliter lirata, liris creberrimis inæqualibus interstitiis transversim minutissimè striatis; foraminibus confertiusculis, quinis senisve perviis; extus coccineo-rufâ, lutescente-albo maculata et variegatâ, intus argenteo-albicante.*

Hab. Cape de Verd Islands.

HALIOTIS ZICZAC. *Hal. testâ ovatâ, planulato-convexâ, spiraliter subtilissimè sulcatâ, foraminibus parviusculis, senis perviis; olivaceo-viridi, luteo-viridescente obliquè flammeo-undatâ, apice luteo-aurantio tinctâ, intus argentea, iridescente.*

Hab. Calipan, Island of Mindoro, Philippines (found on smooth stones); Cuming.

HALIOTIS MULTIPERFORATA. *Hal. testâ oblongo-ovatâ, subflexuosâ, anfractuum parte spirali subelevatâ; spiraliter lineari-sulcatâ, sulcis subundatis irregularibus; foraminibus parviusculis numerosis, decenis perviis; extus nigricante-fusco viridique variegatâ, intus albicante.*

Hab. ———?

HALIOTIS DISCUS. *Hal. testâ oblongo-ovatâ, elevato-convexâ, hic illic tumidâ et rugosâ, latere sinistro lato, peculiariter erecto; foraminibus amplis, subdistantibus, tubiferis, quaternis tantum perviis; castaneo-fuscâ, viridi aut rufescente radiatim tinctâ.*

Hab. Japan; Dr. Siebold.

HALIOTIS SIEBOLDII. *Hal. testâ subobliquè ovatâ, subpectinatâ, valdè convexâ, apice terminali, vix spirali; radiatim lirata, liris obtusis, subdistantibus; foraminibus subamplis, quinis perviis; extus aurantio-rubrà, intus albicante, iridescente.*

Hab. Japan; Dr. Siebold.

HALIOTIS SQUAMATA. *Hal. testâ oblongo-ovatâ, convexâ, spiraliter lirata, liris creberrimis, squamatis, alternis majoribus; foraminibus octonis perviis; fuscâ et rubro-fuscâ, flammulis lutescentibus undatis ornatâ, intus vividè iridescente.*

Hab. North-west coast of Australia; Dring, H.M.S. Beagle.

HALIOTIS FUNEBRIS. *Hal. testâ ovatâ, subdepresso-convexâ, spiraliter lirata, liris subsquamatis, hic illic majoribus, transversim peculiariter rugoso-plicatâ; foraminibus octonis aut novenis perviis; rubido-castaneâ, interdum viridi tinctâ, flammis perpaucis indistinctis circa spiram.*

Hab. New Holland.

HALIOTIS DIVERSICOLOR. *Hal. testâ ovatâ, subplanulatâ, spiraliter lirata, liris obtusis irregularibus, transversim leviter plicatâ; foraminibus octonis vel novenis perviis; castaneo-fusco coccineo-rufo viridique radiatâ, maculis undatis lutescentibus variegatâ.*

Hab. New Holland.

HALIOTIS COCCORADIATA. *Hal. testâ suborbiculari, ovatâ, plano-*

convexâ, medio leviter depressâ, spiraliter subtiliter liratâ, liris striis minutis elevatis decussatis, foraminibus senis perviis; flavidd, strigis latis vividè coccineis radiatim pictâ.

Hab. — ?

HALIOTIS VIRIDIS. *Hal. testâ ovatâ, depresso-convexâ, obliquè undato-rugatâ, spiraliter liratâ, lirarum interstitiis striatis, foraminibus quinis perviis; extus albicante, viridî pulcherrimè tinctâ et marmoratâ, intus argenteâ.*

Hab. — ?

HALIOTIS ASTRICTA. *Hal. testâ ovatâ, convexâ, spiraliter liratâ, liris laminis striisque elevatis irregularibus radiatim decussatis; foraminibus quaternis perviis; extus albidâ, olivaceo viridique marmoratâ, intus iridescente.*

Hab. — ?

HALIOTIS TAYLORIANA. *Hal. testâ oblongo-ovatâ, solidiusculâ, convexâ, spirâ subterminali, spiraliter obtusè et irregulariter liratâ; foraminibus septenis ad novenis perviis; extus coccineo-fuscâ, flavido, coccineo-fusco maculato, prope spiram, nebulatâ; intus albicante.*

Hab. — ?

Named in honour of my worthy friend Thomas Lombe Taylor, Esq., of Starston, Norfolk.

HALIOTIS RUBIGINOSA. *Hal. testâ ovatâ, subdepresso-convexâ, radiatim plicato-rugosâ, spiraliter liratâ, liris obtusè squamatis, foraminibus subapproximatis, senis perviis; extus rubiginoso-aurantiâ, spiraliter albi-strigatâ, intus argenteâ.*

Hab. — ?

HALIOTIS RUGOSA. *Hal. testâ ovatâ, convexâ, medio leviter depressâ, radiatim plicato-rugosâ, spiraliter liratâ, liris obtusis, hic illic majoribus; foraminibus subamplis, quaternis perviis; extus olivaceo-fusco viridique marmoratâ.*

Hab. — ?

HALIOTIS ROSACEA. *Hal. testâ ovatâ, convexo-depressâ, spiraliter crebriliratâ, liris striis exsculptis undique decussatis; foraminibus peculiariter oblongo-ovatis, quaternis perviis; extus corallo-rubro et roseo-albicante marmoratâ, rubro viridî punctato.*

Hab. — ?

HALIOTIS PERTUSA. *Hal. testâ oblongo-ovatâ, spiraliter posticè subtilissimè sulcatâ, sulcis pertusis, anticè exiliter liratâ, sulcis lirisque subirregularibus et undatis; foraminibus senis perviis; extus rufo-fuscâ, strigis perpauca lutescentibus undatis prope spiram, intus vividè iridescente.*

Hab. — ?

HALIOTIS PLANILIRATA. *Hal. testâ ovatâ, plano-convexâ, spiraliter liratâ, liris planulatis irregularibus; foraminibus quinis perviis; olivaceo- et cœruleo-viridî.*

Hab. — ?

HALIOTIS SCUTULUM. *Hal. testâ convexâ, spirâ depressâ, suboccultâ, spiraliter exiliter lirâtâ, liris planulatis, undulatis, hic illic majoribus; foraminibus senis perviis; olivaceo-fusâ, viridi pulcherrimè articulatâ, punctatâ et maculatâ.*

Hab. —?

HALIOTIS ZEALANDICA. *Hal. testâ oblongo-ovatâ, subdepressâ, spiraliter irregulariter sulcatâ, liris intermediis obtusis, nunc latis, nunc angustis, senis perviis; rufo-castaneâ et albicante peculiariter marmoratâ.*

Hab. New Zealand.

HALIOTIS SPECIOSA. *Hal. testâ oblongo-ovatâ, plano-convexâ, medio depressâ, spiraliter elevato-striatâ, striis confertis; foraminibus senis perviis; coccineo-rufâ albo-nigricante marginatâ, pulcherrimè variegatâ.*

Hab. —?

HALIOTIS RETICULATA. *Hal. testâ oblongo-ovatâ, anticè subattenuatâ, plano-convexâ, medio depressâ, latere sinistro latiusculo, erecto, spiraliter vix striatâ; foraminibus quaternis perviis; sordidè fusâ, maculis albidis reticulatis subtriangularibus ornatâ.*

Hab. —?

HALIOTIS NEBULATA. *Hal. testâ oblongo-ovatâ, convexâ, spirâ subelevatâ, spiraliter sulcatâ, sulcis parvis, undatis; foraminibus subapproximatis, septenis perviis; fusco roseoque undique nebulatâ.*

Hab. —?

HALIOTIS SPICULATA. *Hal. testâ ovatâ, spiraliter peculiariter lirâtâ, liris angustis, erectis, valdè irregularibus, radiatim undatoplicatâ; foraminibus amplis, senis perviis; olivaceo-viridi, hic illic albipunctatâ.*

Hab. —?

HALIOTIS SEMISTRIATA. *Hal. testâ ovatâ, spiraliter subtiliter lirâtâ, radiatim undatoplicatâ et plus minusve tuberculosâ; foraminibus subtubiferis, quinis perviis; fusâ aut coccineo-rufâ, albi-maculatâ.*

Hab. Ceylon; Dr. Sibbald.

HALIOTIS CLATHRATA. *Hal. testâ semicirculari-ovatâ, spiraliter crebrilirâtâ, interstitiis striis subtilissimè clathratis, radiatim plicatâ; foraminibus subamplis, quinis perviis; viridi et vividè rufo variegatâ.*

Hab. Baclayon, island of Bohol, Philippines; Cuming.

HALIOTIS STOMATILEFORMIS. *Hal. testâ oblongo-ovatâ, valdè convexâ, spiraliter striatâ, radiatim subtiliter plicatâ, spirâ subterminali, elevatâ; foraminibus quinis perviis; olivaceo viridique marmoratâ.*

Hab. New Zealand.

HALIOTIS ANCILE. *Hal. testâ ovatâ, regulariter convexâ, spiraliter*

ægiliter noduloso-striatâ, nodulis interdum subobscuris interruptis; foraminibus numerosis, parvis, octonis perviis; olivaceo-viridi, nodulis et circa spiram cupreo-roseis.

Hab. — ?

HALIOTIS DRINGII. *Hal. testâ orbiculari-ovatâ, spiraliter striatâ, radiatim plicatâ et tuberculosâ; foraminibus subtubiferis, quaternis perviis; extus pallide viridescente-luteâ, medio conspicuè coccineo tinctâ, intus argenteâ.*

Hab. North coast of Australia.

HALIOTIS CONCINNA. *Hal. testâ suboblongo-ovatâ, spiraliter striatâ, medio leviter tuberculatâ, obliquè subobscurè plicatâ; foraminibus quaternis perviis; carneo-albicante, coccineo-rosco profusè variegatâ.*

Hab. Zamboanga, island of Mindanao, Philippines; Cuming.

HALIOTIS GEMMA. *Hal. testâ suborbiculari-ovatâ, plano-convexâ, latere sinistro latiusculo, spiraliter subtuberculatâ, radiatim pulcherrimè minutè plicato-squamatâ; foraminibus subtubiferis, quaternis quinisque perviis; flavescente, coccineo viridique tinctâ.*

Hab. — ?

HALIOTIS LAUTA. *Hal. testâ ovatâ, anticè attenuatâ, undato-tumidâ, spiraliter liratâ, liris subtilibus, confertis, striis minutis decussatis; foraminibus subamplis, quinis perviis; rubido et flavescente-albidâ irregulariter marmoratâ.*

Hab. Swan River Settlement, New Holland; Lieut. Preston.

HALIOTIS PAPULATA. *Hal. testâ suborbiculari-ovatâ, spiraliter obtuso-liratâ, liris subdistantibus, conspicuè tuberculatis; foraminibus subtubiferis, quaternis perviis; corallo-rubrid, flavescente varid.*

Hab. North coast of Australia; Dring.

HALIOTIS JACNENSIS. *Hal. testâ oblongo-ovatâ, spiraliter peculiariter rudè liratâ, liris valdè irregularibus, subsquamosis, prope foramina sublævigatâ; foraminibus subtubiferis, distantibus; rufo-aurantid, intus argenteâ.*

Hab. Jacna, island of Bohol, Philippines.

HALIOTIS PUSTULATA. *Hal. testâ oblongo-ovatâ, spiraliter obscurè liratâ, tuberculis parvis pustulatâ, radiatim plicatâ; foraminibus senis perviis; albidâ viridique marmoratâ.*

Hab. — ?

HALIOTIS AQUATILIS. *Hal. testâ oblongo-ovatâ, plano-convexâ, medio depressâ, lævigatâ, prope marginem peculiariter plicatâ; foraminibus senis perviis; pallide viridi, albedo aut flavescente undato-variegatâ, intus albicante.*

Hab. Kurile Islands, south of Kamtschatka.

HALIOTIS JANUS. *Hal. testâ oblongo-ovatâ, spiraliter liratâ, liris subtilibus angustis, interstitiis excavatis; foraminibus senis per-*

viis; luteo-aurantiâ, fuscâ latâ albidâ, fusco grandimaculatâ, prope foramina ornatâ.

Hab. — ?

HALIOTIS CRUENTA. *Hal. testâ ovatâ, anticè subattenuatâ, spirâ elevatiusculâ, spiraliter peculiariter undato- et corrugato-striatâ; foraminibus subapproximatis, octonis perviis, sanguineo albipunctato et albido sanguineo-punctato pulcherrimè variegatâ.*

Hab. New Zealand.

HALIOTIS INCISA. *Hal. testâ ovatâ, medio subdepressâ, spiraliter incisâ, subtuberculiferâ; foraminibus amplis, quaternis perviis; albidâ et purpureo-viridi marmoratâ, albido minutissimè rufo-punctatâ.*

Hab. — ?

The next paper was also communicated by Mr. Lovell Reeve, and contained "Descriptions of fifty-four new species of *Mangelia*, from the collection of H. Cuming, Esq.":—

The *Mangelie* are nearest allied to those aberrant species of *Pleurotoma* in which the predominant character of that genus, the fissure in the upper extremity of the lip, becomes modified into a somewhat obscure sinus. Their general aspect is that of a more or less fusiform *Marginella*, without plaits or polished exterior; distinguished, on the other hand, by a row of faint wrinkle-like denticulations on the inner surface of the lip and columella, and a gutter-like sinus in the lip at its junction with the body-whorl.

MANGELIA SICULA. *Mang. testâ subfusiformi, spirâ acuminatâ, anfractibus rotundatis, gibbosiusculis, concentricè costatis, lævibus; aperturâ brevi, ovatâ, sinu subconspicuo; intus extusque castaneo-fuscâ, labro flavicante, fusco-lineato.*

Hab. Sicily.

MANGELIA VEXILLUM. *Mang. testâ oblongo-ovatâ, anfractibus superne depressis, nodosis, costis e nodis descendentibus, superficie totâ decussatim striatâ, quasi subtilissimè decussatâ; aurantio-luteâ, fasciis albicantibus angustis undique cingulatâ.*

Hab. Ilo Ilo, isle of Panhay, Philippines (found under stones); Cuming.

MANGELIA LYRA. *Mang. testâ trigono-fusiformi, anfractibus superne angulatis, longitudinaliter costatis, costis subobliquis, ad angulum incrassatis; castaneo-fuscâ, lineis albicantibus decussatis, labro albicante.*

Hab. Island of Ticao, Philippines (found on the sands); Cuming.

MANGELIA ANTILLARUM. *Mang. testâ subpyriformi-ovatâ, lævigatâ, longitudinaliter concentricè costatâ, costis fortibus, subobtusis, distantibus; cinereo-carnèâ, costis fasciâ rubidâ tinctis, labro albicante, rubido fasciatim tincto.*

Hab. West Indies.

MANGELIA MARGINELLOIDES. *Mang. testâ pyriformi-ovatâ, spirâ brevî, acutâ; anfractibus supernè angulatis, longitudinaliter multicostratis, costis tenuibus, crebris, suturis descendentibus; lacteo-cæruleâ aut cinereo-fuscâ, lineis rubidis cingulatâ, anfractûs ultimî parte supra angulum maculâ grandi nigricante conspicuè tinctâ.*

Hab. Island of Burias, Philippines (found in sandy mud at the depth of seven fathoms); Cuming.

MANGELIA FUNICULATA. *Mang. testâ trigono-fusiformi, subelongatâ, anfractibus supernè depressis, longitudinaliter tenuicostatis, laevibus; cinereo-fuscâ, costis labroque albicantibus.*

Hab. Islands of Ticao and Masbate, Philippines (found on the sands); Cuming.

MANGELIA CAVERNOSA. *Mang. testâ oblongo-ovatâ, spirâ angulato-turritâ; anfractibus supernè angulatis, intra costis cavernosis, costis fortibus, obtusis, suturis descendentibus; albâ, aurantio-fusco hic illic sparsim maculatâ.*

Hab. Island of Ticao, Philippines (found on the sands); Cuming.

MANGELIA CYLINDRICA. *Mang. testâ cylindraco-fusiformi, apice acutâ, longitudinaliter subtiliter costatâ, transversim elevato-striatâ; pellucido-albâ, fusciscente tinctâ, aurantio-fusco infra suturas maculatâ.*

Hab. Cagayan, island of Mindanao, Philippines (found in sandy mud at the depth of twenty-five fathoms); Cuming.

MANGELIA CAPILLACEA. *Mang. testâ ovato-fusiformi; spirâ suturis profundis; anfractibus supernè depressis, transversim subtilissimè et creberrimè elevato-striatis, longitudinaliter costatis, angustis, subrectis, supernè leviter mucronatis; fuscescente, lineis subtilibus fuscescentibus zonatâ.*

Hab. Island of Burias, Philippines (found among coarse sand at the depth of seven fathoms); Cuming.

MANGELIA GRACILIS. *Mang. testâ gracili-fusiformi, transversim subtilissimè striatâ, longitudinaliter costatâ, costis angustis; albâ, castaneo-fusco indistinctè zonatâ et maculatâ.*

Hab. Island of Ticao, Philippines (found under stones at low water); Cuming.

MANGELIA LAMELLATA. *Mang. testâ fusiformi-ovatâ, spirâ suturis profundis, subcavernosis, anfractibus transversim elevato-striatis, striis fortibus, subdistantibus, longitudinaliter costatis, costis angustis, erectis, lamellæformibus, supernè leviter mucronatis; albidâ, fusco pallidissimè zonatâ.*

Hab. Isle of Burias, Philippines (found among coarse sand at the depth of seven fathoms); Cuming.

MANGELIA VITTATA. *Mang. testâ oblongo-ovatâ, subconicâ, spirâ brevî, obtusâ; anfractibus longitudinaliter costatis, costarum in-*

terstitiis striis fortibus clathratis; albidâ, olivaceo-fusco latifusciatâ, costarum parte olivaceo-fusâ albipunctatâ.

Hab. Island of Ticao, Philippines (found on the sands); Cuming.

MANGELIA ZONATA. *Mang. testâ abbreviato-fusiforâ, spirâ breviusculâ, turritâ suturis profundis; anfractibus longitudinaliter costatis, costis e suturis descendentibus; levigatâ; albâ, zonâ conspicuâ aurantio-fusâ cingulatâ.*

Hab. Island of Ticao, Philippines (found on the sands); Cuming.

MANGELIA INTERRUPTA. *Mang. testâ oblongo-ovatâ, spirâ brevi, anfractibus supernè nodosis, costis e nodis descendentibus; albâ, lineis nigris subtilissimis transversis interruptis, creberrimè dispositis, inter costas ornatâ.*

Hab. Island of Ticao, Philippines (found on the sands); Cuming.

MANGELIA RETICULATA. *Mang. testâ fusiformi-ovatâ, spirâ breviusculâ, apice acuminatâ; anfractibus supernè perpendiculariter compressis, deinde tumidiusculis et longitudinaliter costatis, costarum interstitiis exiliter fusco-punctatis.*

Hab. Island of Ticao, Philippines (found on the reefs); Cuming.

MANGELIA PULCHELLA. *Mang. testâ fusiformi-ovatâ, subcylindraceâ, spirâ breviusculâ, apice acuminatâ; anfractibus supernè rotundatis, longitudinaliter multicostatis, costis tenuibus gracilibus, concentricè dispositis, anfractuum superficie totâ exilissimè reticulatâ; luteo-alicante, maculis quadratis parvis rufis costarum interstitiis fasciatim cingulatâ.*

Hab. Island of Ticao, Philippines (found on the sands); Cuming.

MANGELIA FUSIFORMIS. *Mang. testâ fusiformi, anfractibus supernè subangulatis, ad angulum nodosis, costis tenuibus subsuperficiariis e nodis descendentibus, transversim creberrimè striatis; luteo-alicante, punctis perpaucis aurantio-fuscis tinctâ.*

Hab. Island of Corrigidor, Philippines (found among coarse sand at the depth of ten fathoms); Cuming.

MANGELIA LYRICA. *Mang. testâ fusiformi, utrinque acuminatâ, anfractibus longitudinaliter concentricè costatis, transversim elevato-striatis; fuscescente, aurantio-fusco pallidè et indistinctè fasciatâ.*

Hab. Island of Burias, Philippines (found among coarse sand at the depth of seven fathoms); Cuming.

MANGELIA GIBBOSA. *Mang. testâ ovato-conicâ, spirâ brevissimâ; anfractibus supernè gibbosis et nodulosis, longitudinaliter costatis, levigatis; cinereo-alicante, lineis aurantio-fuscis exilibus cingulatâ, dorso supernè nigricante tincto.*

Hab. Island of Ticao, Philippines (found on the reefs); Cuming.

MANGELIA MACULATA. *Mang. testâ subfusiformi, basi truncatâ, longitudinaliter costatâ, costis tenuibus subdistantibus, concentricè dispositis; sinu latiusculo; albâ, maculis subquadratis aurantio-fuscis inter costas.*

Hab. Island of Ticao, Philippines (found under stones at low water); Cuming.

MANGELIA TURRICULA. *Mang. testâ fusiformi-turritâ, suturis profundis; anfractibus plano-depressis, longitudinaliter concentricè costatis; albicante, lineis subtilissimis aurantio-fuscis obsolete cingulatâ.*

Hab. Island of Ticao, Philippines (found on the sands); Cuming.

MANGELIA COLUMBELLOIDES. *Mang. testâ ovatâ, spirâ brevi, acutâ; anfractibus supernè leviter rotundatis, transversim elevato-striatis, longitudinaliter tenuicostatis, labro medio tumido, intus fortiter denticulato; nived, costis eximè aurantio-fusco punctatis.*

Hab. Baclayon, island of Bohol, Philippines (found on mud banks); Cuming.

MANGELIA CONOHELICOIDES. *Mang. testâ ovato-conicâ, spirâ brevissimâ, acutâ; anfractibus transversim elevato-striatis, longitudinaliter multiliratis, liris tenuibus, ante suturas evunidis; luteo-albicante, dorso maculâ grandi aurantio-fusâ interdum tincto.*

Hab. Daleguete, isle of Zebu, Philippines (found under stones); Cuming.

MANGELIA TENEBROSA. *Mang. testâ subfusiformi, spirâ acuminato-turritâ; anfractibus supernè plano-depressis, suturis profundis, transversim striatis, longitudinaliter costatis, costis distantibus; intus extusque castaneo-fusâ.*

Hab. Cagayan, island of Mindanao (found in sandy mud at the depth of twenty-five fathoms); Cuming.

MANGELIA NOVÆ HOLLANDIÆ. *Mang. testâ ovatâ, infernè attenuatâ, subconicâ, spirâ brevi; anfractibus supernè rotundatis, longitudinaliter obliquè costatis; livido-cinereâ, apice basique nigricantibus, labro albido, aperturæ fauce fusâ.*

Hab. Swan River.

MANGELIA LIVIDA. *Mang. testâ subfusiformi-ovatâ, apice acuminatâ; anfractibus longitudinaliter concentricè costatis, costis tenuibus; livido-carnâ.*

Hab. Island of Ticao, Philippines (found on the reefs); Cuming.

MANGELIA ABYSSICOLA. *Mang. testâ oblongo-ovatâ, utrinque conspicuè attenuatâ, longitudinaliter costatâ, lineis elevatis cingulatâ; albidd, fusco zonatâ.*

Hab. Island of Mindanao, Philippines (found in sandy mud at the depth of twenty-five fathoms); Cuming.

MANGELIA BICOLOR. *Mang. testâ oblongâ, concentricè costatâ, costarum interstitiis subtilissimè striatis; supra albidd, infra plumbeâ.*

Hab. Island of Ticao, Philippines; Cuming.

MANGELIA FUNEBRIS. *Mang. testâ oblongâ, concentricè costatâ,*

costarum interstitiis laevibus; albidâ fasciatâ plumbeâ latâ cingulatâ.

Hab. Island of Ticao (found under stones at low water); Cuming.

MANGELIA STROMBOIDES. *Mang. testâ fusiformi-ovatâ, spirâ subturritâ; anfractibus supernè angulatis, longitudinaliter costatis, costis ad angulum nodosis, interstitiis subtilissimè striatis; albidâ.*
Hab. Island of Bohol, Philippines.

MANGELIA PALLIDA. *Mang. testâ ovatâ, concentricè costatâ, costis subobtusis; albâ.*

Hab. Island of Ticao, Philippines; Cuming.

MANGELIA PESSULATA. *Mang. testâ cylindraceo-oblongâ, spirâ breviusculâ, longitudinaliter eximè subobliquè costatâ, costarum interstitiis subtilissimè striatis; nivedâ.*

Hab. Philippine Islands; Cuming.

MANGELIA RIGIDA. *Mang. testâ ovatâ, longitudinaliter fortiter tuberculato-costatâ, transversim subtilissimè striatâ; fuscescente.*

Hab. Ægean Sea; Forbes.

MANGELIA ELEGANS. *Mang. testâ oblongâ, spirâ breviusculâ, acuminatâ, anfractibus supernè angulatis, longitudinaliter costatis, costis angustis, ad angulum mucronatis, costarum interstitiis pulcherrimè elevato-striatis; lutescente-albâ, exilissimè fusco-zonatâ.*

Hab. Island of Mindoro, Philippines; Cuming.

MANGELIA LINEATA. *Mang. testâ ovatâ, spirâ acuminatâ; concentricè obtuso-costatâ, laevigatâ; carneo-fuscescente, lineis saturatioribus undique cingulatâ.*

Hab. —?

MANGELIA PLANILABRUM. *Mang. testâ fusiformi, utrinque acuminatâ, lævissimâ, anfractibus supernè depressis, longitudinaliter costatis; labro planulato, supra subangulato; cinereo-purpurascente, albizonato.*

Hab. Island of Ticao, Philippines; Cuming.

MANGELIA HORNBECKII. *Mang. testâ ovatâ, spirâ breviusculâ, acutâ, suturis profundis, subcavernosis, longitudinaliter costatâ, costis prominentibus, transversim subtilissimè striatâ, albâ.*

Hab. Island of St. Thomas, West Indies; Dr. Hornbeck.

MANGELIA CASTANEA. *Mang. testâ oblongâ, spirâ acuminatâ, concentricè tenuicostatâ, costarum interstitiis striatis; castaneo-fusâ.*

Hab. Island of Burias, Philippines; Cuming.

MANGELIA PUSILLA. *Mang. testâ fusiformi-ovatâ, laevigatâ, longitudinaliter costatâ, costis solidiusculis obtusis; albidâ, castaneo copiosè tinctâ et lineatâ.*

Hab. —?

MANGELIA MARMOROSA. *Mang. testâ ovatâ, solidiusculâ, spirâ breviusculâ; longitudinaliter costatâ, costis obesis, striis elevatis, decussatis; sinu amplo; albâ, aurantio-fusco perparce maculatâ.*

Hab. — ?

MANGELIA CASTA. *Mang. testâ ovato-turritâ, longitudinaliter costatâ, costis tenuibus subdistantibus, lævigatâ; aperturâ brevî, basi truncatâ; carneo-fuscâ, obscurè fasciatâ, costis albicantibus.*

Hab. — ?

MANGELIA OBELISCUS. *Mang. testâ subulatâ, hexagonâ, basi truncatâ, striis pulcherrimis elevatis undique creberrimè cingulatâ, longitudinaliter costatâ, costis distantibus, sequentibus; aperturâ minutâ, ovatâ; sordidè albâ, aperturæ fauce lutescente.*

Hab. Islands of Corrigidor, Philippines (found among coarse sand at the depth of ten fathoms); Cuming.

MANGELIA BALTEATA. *Mang. testâ elongatâ, subfusiformi, longitudinaliter costatâ costis angustis, distantibus; albâ, zonâ fuscâ conspicuâ cingulatâ.*

Hab. — ?

MANGELIA ASTRICTA. *Mang. testâ subfusiformi-ovatâ, spirâ breviusculâ, suturis profundis; longitudinaliter costatâ, costis crebriusculis; albidâ, zonâ fuscâ angustâ cingulatâ.*

Hab. — ?

MANGELIA BADIA. *Mang. testâ fusiformi-ovatâ, concentricè plicato-costatâ, transversim fortiter striatâ; castaneo-fuscâ.*

Hab. — ?

MANGELIA PELLUCIDA. *Mang. testâ ovatâ, utrinque attenuatâ, lævigatâ, pellucidâ, nitidâ, longitudinaliter crebricostatâ; albidâ, basi fuscâ.*

Hab. — ?

MANGELIA ANGULATA. *Mang. testâ fusiformi-ovatâ, anfractibus medio peculiariter angulatis, suturis profundis, longitudinaliter costatis, costis angulos super mucronatis; albidâ, fuscescente lineatâ.*

Hab. Bay of Manila (found in sandy mud at the depth of four fathoms); Cuming.

MANGELIA PURA. *Mang. testâ oblongo-ovatâ, spirâ subturritâ, suturis profundis; anfractibus concentricè costatis; albidâ, maculis perpaucis aurantio-fuscis.*

Hab. — ?

MANGELIA SOLIDA. *Mang. testâ cylindraco-ovatâ, utrinque attenuatâ, solidâ, undique creberrimè granoso-clathratâ; aperturâ longiusculâ; purpurascente.*

Hab. Island of Burias, Philippines (among sand at the depth of seven fathoms); Cuming.

MANGELIA DERELICTA. *Mang. testâ ovatâ, longitudinaliter fortiter concentricè costatâ, transversim subobsoletè striatâ; fuscescente.*

Hab. — ?

MANGELIA ZEBUENSIS. *Mang. testâ ovato-oblongâ, spirâ acuminatâ, basi subattenuatâ, concentricè fortiter costatâ, transversim creberrimè striatâ; fuscescente.*

Hab. Island of Zebu, Philippines (found in sandy mud at the depth of four fathoms); Cuming.

MANGELIA CINCTA. *Mang. testâ subfusiformi-ovatâ, spirâ turrîtâ, suturis subprofundis; anfractibus supernè angulatis, longitudinaliter costatis, costis distantibus; albidd, anfractibus fuscâ latâ fuscescente supernè cinctis.*

Hab. Island of Bohol, Philippines (found under stones at low water); Cuming.

MANGELIA DIGITALIS. *Mang. testâ fusiformi-ovatâ, solidâ, undique creberrimè granoso-clathratâ; albicante, zonis duabus purpureis angustis cingulatâ.*

Hab. — ?

MANGELIA NANA. *Mang. testâ; ovatâ, spirâ brevi, turrîtâ, apice acutâ; anfractibus supernè angulatis, longitudinaliter obliquè costatis, interstitiis cavis, subtiliter striatis.*

Hab. Island of Mindanao, Philippines (found in sandy mud at the depth of twenty-five fathoms); Cuming.

July 28, 1846.

No business was transacted.