

**A catalogue raisonnée of the natural history, ethnological specimens, and curiosities collected by Lady Brassey, during the voyages of the "Sunbeam", 1876-1883, exhibited at Sir Thomas Brassey's rooms, School of Fine Art, Claremont, Hastings / by Bryce Wright.**

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A

CATALOGUE

OF

NATURAL HISTORY OBJECTS,

Ethnological Specimens, and Curiosities,

EXHIBITED BY

LADY BRASSEY,

AT

HASTINGS.

1894-5.



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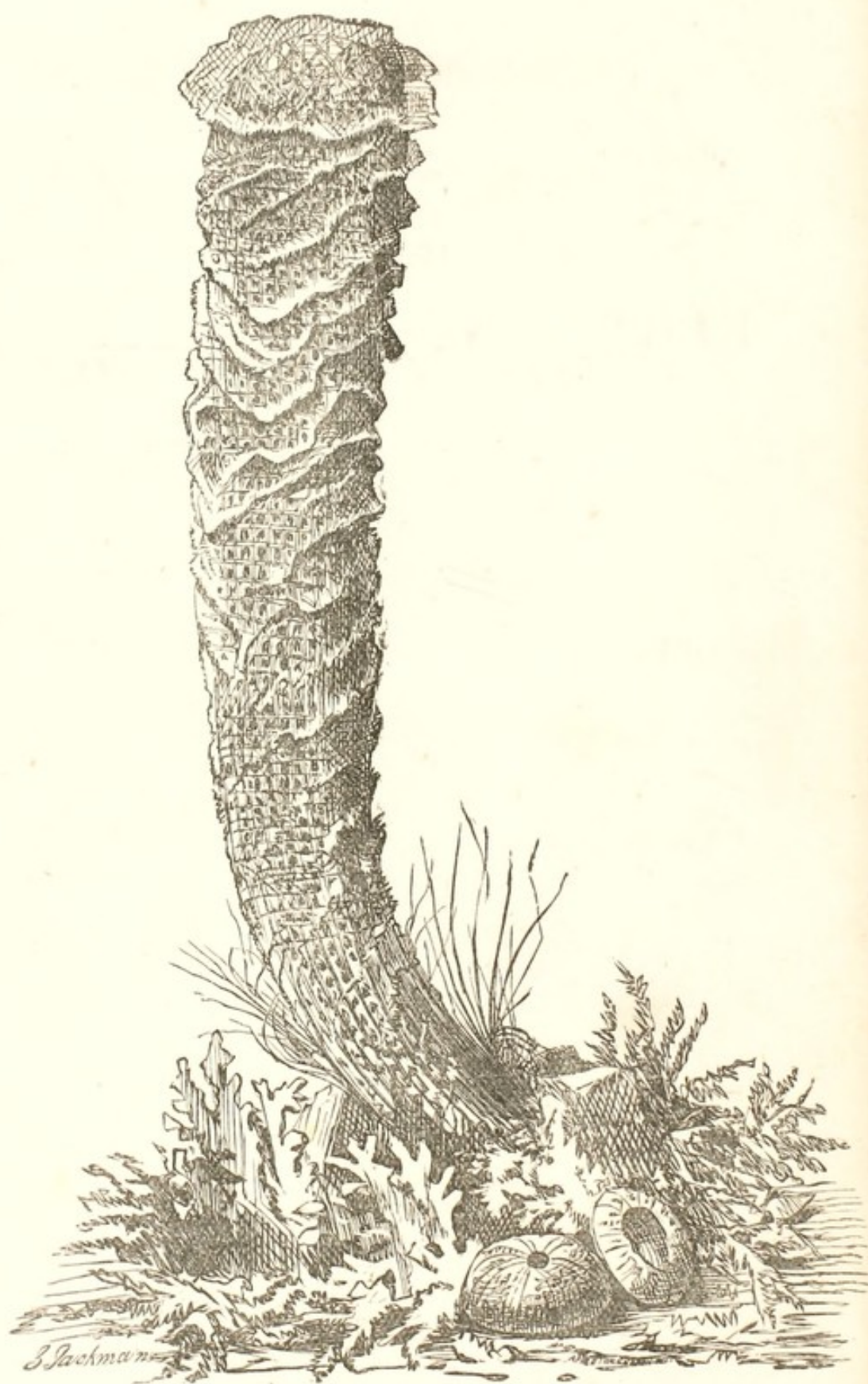




J. H. Ward Esq

With the authors compliments





"THE VENUS FLOWER-BASKET" (*EUPLECTELLA ASPERGILLUM*, OWEN).  
Zebu. Philippines.



50729

A CATALOGUE  
*RAISONNÉ*  
OF THE  
NATURAL HISTORY,  
ETHNOLOGICAL SPECIMENS,  
AND  
CURIOSITIES

COLLECTED BY  
LADY BRASSEY,  
DURING THE VOYAGES OF THE "SUNBEAM,"  
1876—1883.

EXHIBITED AT  
SIR THOMAS BRASSEY'S ROOMS, SCHOOL OF FINE ART,  
CLAREMONT, HASTINGS.

BY  
BRYCE WRIGHT, F.Z.S., F.R.G.S.

*The Proceeds will be devoted to the St. John Ambulance  
Association and various Charities.*

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## PREFACE.

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ANY of the Natural History and other specimens, of which this Volume is a Catalogue *raisonné*, have been already, by special desire, exhibited at the recent International Fisheries Exhibition, London; also at Penzance, Swansea, and other places for philanthropic purposes, and are now, with many important additions, on view at Hastings, for the benefit of the St. John Ambulance Association and other charities.


The late voyage of the 'Sunbeam' to the West India Islands and the Bermudas has greatly augmented the collection. Many of the specimens are graphically described in Lady Brassey's recent work, 'In the Trades, the Tropics, and the "Roaring Forties."'

The Glass and Pottery from the Island of Cyprus were specially excavated by Colonel Falk Warren, R.A. The interesting account appended is by Mr. Alfred Maskell.

The Gold Ornaments from the Indian *Huacas*, or graves of Colombia, lately received, may claim to be the most important and comparatively complete collection of these antiquities ever exhibited. They are described in the Appendix.

BRYCE WRIGHT.





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## CENTRE CASE.

### NATURAL HISTORY.

MOLLUSCA, ECHINODERMATA, CORALS, AND SPONGES.

1.

**E**UPLECTELLA SPECIOSA. Venus' flower basket.  
*Zebu, Philippines.* The first object which attracts attention from its position is the group of extremely beautiful delicate lace-like sponge corals popularly known as "The Venus' Flower Basket," the *Euplectella*\* *aspergillum* of Owen and *E. speciosa* of Gray (see *Frontispiece*) (1). So complex are these snow-white and graceful sponges, that they have often been mistaken, and pardonably so, by the uninitiated for remarkable specimens of spun glass. But they are true products of nature, and bring vividly to mind the incomprehensible greatness of the Creator's work.

"These are thy glorious works, Parent of good,  
 Almighty! Thine this universal frame."

The first specimen brought to England was described by Professor Sir Richard Owen in the Transactions of the Zoological Society of London in 1841. It belongs to the group

\* "Eu," well; and "pleko," I weave.



Hexactinellidæ, so called from the sponge spicules possessing six points or rays. For many years only one specimen was known, and this changed hands several times for the sum of 30*l.*: it is now in the National Collection at the British Museum, where it is naturally prized, and more particularly so in consequence of it possessing a part of the sarcode or gelatinous film in its natural state. This is seldom found upon the *Euplectella*, and to non-zoologists would be considered really no loss, as their beauty is entirely hidden by it, and instead of the snow-white crystalline form, as seen in these specimens, a dark muddy and anything but inviting object meets the eye. The whole of those exhibited were procured at Singapore, where Lady Brassey, in search of specimens, was fortunate enough to find them in an old trunk at the back of a *bric-à-brac* shop. Single specimens had been met with by the *Challenger* at different ports, but none were purchasable until this discovery, and these only through the exercise of that instilled principle so absolutely necessary to a traveller, which has been best described by the author of 'Eyes and No Eyes.' Their habitat is the Island of Zebu, one of the Philippines, where the natives procure them by means of weighted wooden bars furnished with hooks which are dragged over the muddy ground, often in deep water, the process being extremely tedious. Several species are now recognised. The one exhibited is tenanted so frequently by one or two small decapod crustaceans that the native fishermen think the sponge is the work of the crab. These have, however, only been found in this one species, and not in those procured from the Atlantic Seas. The *Euplectella* is of cornucopia shape, ranging in height from six to even fifteen inches, and has a horny skeleton-like network, composed of large silicious fibres running from the base to the head, surrounded by smaller fibres, forming square open meshes resembling a net or basket-work. At the lower extremity, or root, it averages about an

inch in breadth, but its size gradually increases as it approaches the top, where often it is two inches wide. It is surmounted by a ridge about a quarter of an inch broad, and is closed at the larger extremity by a delicate open lace-work of fibres possessing an irregular pattern. It is on this light and pretty structure that the fibrous gelatinous substance rests, resembling in texture the common sponge, but in this instance disposed in an irregular foliated pattern. It is anchored and supported in position by fringe-like spiculæ at the base, which spread out in the soft mud in which the sponge itself is embedded nearly up to the collar or ring at the top. The animal is very little known, and appears to consist simply of a greyish-brown sarcode full of spiculæ, foraminiferæ, and sand, covering the framework. Altogether the *Euplectella* must be considered one of the most curious and interesting, as well as one of the most beautiful representatives of the lower forms of animal life.

2. *POCILLOPORA LACERA*. Habitat *Indian Ocean*. A madreporidean coral growing in globular clumps. It is divided into short club-shaped branches, characteristic of the genus.
3. *DENDROPHYLLIA NIGRESCENS*. *Sooloo Seas*. A fine specimen, dark in colour, possessing a dense cænenchyma. The coral-lites are rather distant and protrude at intervals from the branches.
4. *MADREPORA ASPERA*. *Indian Seas*. An ordinary branching coral commonly found in the Straits Settlements.
5. *AGARICIA AGARICITES* (Group of). *Indian Ocean*. It has a long slender finger of a sponge attached, probably of the genus *Echinonema*.
6. *ISOPHYLLIA CYLINDRACEA*. *Bahamas*. A small round coral closely allied to *Meandrina* (brain coral).
7. *GORGONELLA UMBELLA*. *Mauritius*.
8. *DISTICHOPORA BRASSEYI*. *Bryce Wright. Gilbert Isles*.



This unique and remarkable specimen belongs to the hydroid corals of the family Stylasteridæ, *Lamarck*. The following is the description taken from the 'Annals and Magazine of Natural History,' vol. ix. No. L. 1882:—

"Cœnosteum, a deep red, tinted or slightly mottled with orange at the extremities of the stems and adult branches, paling off into white and pale orange-yellow, basal portion of coral moderately solid; branches long and erect, slightly tortuous, not so curved or foliaceous as in most of the other species, rounded but slightly compressed in the plane of the flabellum; termination of main branches bilobed and occasionally trilobed; lateral branchlets not frondose; but chiefly elongate and obtusely pointed or clavate, moderately distant from each other; main stems closely set together. Surface of cœnosteum very minutely and tortuously canaliculated, as in the vertical section. The pore-rows in this and the transverse section exhibit the gastropores rather irregularly spaced and outlined, with the dactylopores slightly intermixed. Pore-rows sinuated very inequilaterally on each side of the flabellum. Stellate prominences or ampullæ (verruæ stelliformes, *Lamarck*) abundant on the front and sides of branches, largely developed, hollow, and finely pustulated and prominent. These ampullæ are of late growth, when the organism was fully developed, since, while frequently occurring in proximity to the poriferous lines, they are never or very rarely intersected by them.

"Height of specimen 16 inches, width 26 inches.

"This unique coral is the largest and most perfect example known. Unfortunately, during the voyage of the 'Sunbeam' a few of the fronds at the left side were broken off; otherwise its width would have been 3 or 4 inches more."

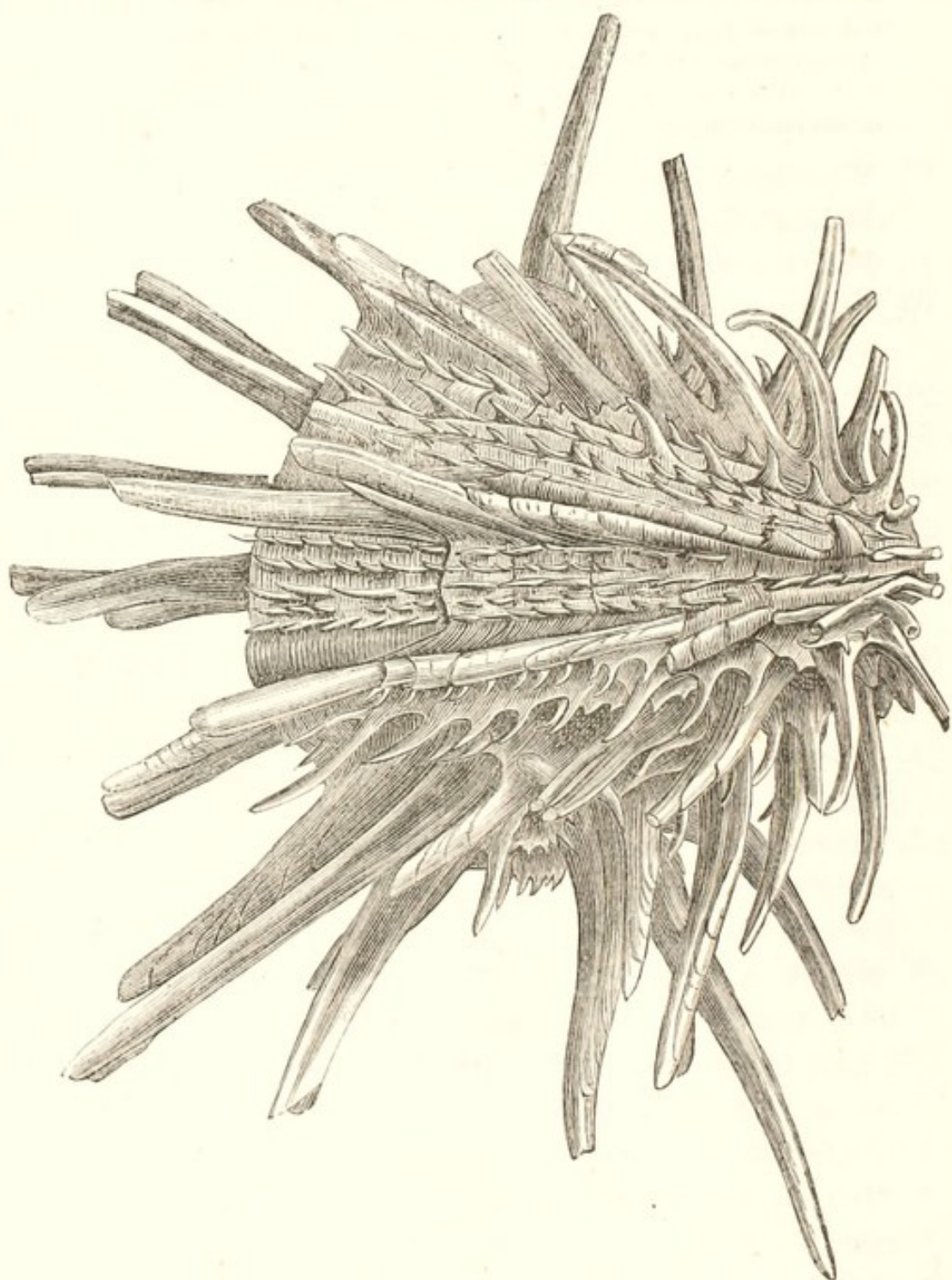
9. MEANDRINA CEREBRIFORMIS (Brain coral). *Bahamas*.
10. MERULINA AMPLIATA. *Indian Seas*. A small foliated coral allied to Pavonia.
11. GORGONELLA UMBELLA (Spray of). *Mauritius*. A very beautiful sea fan of the Gorgonia family.
- 12, 13, 14. STAR FISHES. *Oreaster reticularis*. *Bahamas*. No. 14 is remarkable in having only four arms, but is otherwise quite symmetrical. This absence of the fifth rarely happens in this as well as other species. The upper surface is beautifully reticulated in each of these fine specimens.
- 15, 16. "SEA PENS" of *Loligo vulgaris*. *English Channel*.

These are the internal bones or supports of a species of Squid (*Loligo*), one of the cuttle fishes. This is not the ordinary octopus or

devil-fish, as described by Victor Hugo in 'Travailleurs de la Mer,' but one of that group which has ten arms and is used in every country except Great Britain, both as an article of diet and for fishing-bait. It is always membranous, quite unlike the calcareous "bones" of the cuttle fishes.

17. MADREPORA SPICIFERA. *Tahiti*. For further description see No. 107.
18. POCILLOPORA (Group of). *Indian Ocean*.
19. STYLASTER SANGUINEA. *Australia*. A small coral of delicate rose colour with graceful branches.
20. PTEROCERAS AURANTIA. *Mauritius*. The yellow "spider" shell.
21. CYTHEREA AUREA. *Indian Ocean*.
22. PECTEN ASPERRIMUS. *New Zealand*. A fan shell of a red colour, having in the Australian seas a similar distribution to *Pecten opercularis* in Great Britain.
23. STYLASTER SANGUINEA. *Australia*. A pretty red tree-like coral with flattened branches.
24. PECTEN MAXIMUS. *English Channel*. This shell is not found north of the English seas.
25. ASTREA. *Bahamas*. These corals sometimes attain a diameter of ten or twelve feet, and form often with the *Porites* the foundation of Coral *Reefs*.
26. SPONDYLUS WRIGHTIANUS. *Crosse. Nichols Bay, Australia*. This handsome shell is somewhat like *Spondylus regius*, Linné, but has not the delicate character of that shell, the spines being stronger, more curved and numerous. (For illustration, see page 6).
27. MILLEPORA ALCICORNIS. *Bahamas*. A fine specimen of the ramose and encrusting form of this curious Hydroid Zoo-phyte, surrounding the cylindrical stem of a dead *Gorgonia*.
28. A very finely carved Tiara of precious coral (*Corallium rubrum*) of great beauty and rare colour. This forms a portion of Lady Brassey's unique suite of corals.





SPONDYLUS WRIGHTIANUS.  
(Figured from the type specimen.)

- 
29. SPONDYLUS WRIGHTIANUS. *Nichols Bay, Australia.* A beautiful specimen of this extremely graceful bivalve.
30. DICHOCOERIA LAMARCKII. *Red Sea.* A dome-shaped mass of white coral with peculiar calicles.
31. SPONDYLUS WRIGHTIANUS. *Australia.* The pink variety.
32. POCILLOPORA VERRUCOSA. *Straits Settlements.* A round mass of a Madreporidean coral with short branches.
33. PECTEN PLEURONECTES. *Manilla.* "The Flounder Scallop." A peculiarity of this species is that the under valve is always white, the upper valve being brown, and rayed.
34. SPONDYLUS AURANTIUS. *Singapore.* The Orange Spondylus.
- 35-47. PECTEN OPERCULARIS. *Hastings.* These shells are found on the Diamond Bank in the English Channel, opposite Normanhurst Court, and generally round the British Islands; they are the most beautiful of our native shells.
48. VALVE OF ANODON. *China.* In which are small figures of the god Buddha. These are inserted into the shell by the wily Chinese whilst the fish is alive, and are generally made of clay or thin pieces of metal, which the mollusc, to get rid of the irritation caused by the offending intruders, quickly coats over with a fine nacreous film.
49. MADREPORA SPICIFERA. For full description see No. 107.
50. PECTEN RADULA. *Singapore.*
51. PECTEN ASPERRIMUS. *New Zealand.*
52. PECTEN SENATORIUS. *New Zealand.* The Pectens are very numerous in species and are found in all parts of the world.
53. PTEROGORGIA PINNATA. *Bahamas.* Sea fan. A plume-like Gorgonia of a reddish violet colour.
54. MUREX REGIUS. *Manilla.* "The Royal Murex." A shell generally found on the coral reefs of the Eastern Seas, and much esteemed for its beautiful colour. These Murices are collected and exported in great numbers for ornamental purposes.



55. A small cluster of white Madreporæ. *Singapore.*
56. CYPRÆA AURORA. *Sandwich Islands.* The Orange Cowry. A very beautiful specimen of this exceedingly rare cowry. This shell was, previous to the introduction of European civilisation to the Hawaiian Isles, confined to the possession of the chiefs, who alone were privileged to wear it as a badge of honour and authority, being worn round the neck suspended by a thong upon all regal and religious ceremonies. This particular specimen was for many years in the possession of Prince Leleiohoku, and was presented to Lady Brassey after his death.
57. MADREPORA SPICIFERA. *South Pacific.* (See No. 107.) A small specimen.
58. PTEROGORGIA ACERATA. *Bahamas.* A handsome plume of a White Gorgonia which occurs in company with *P. pinnata* and countless other forms of life in the quiet rock pools and coral banks of the West Indies. For a more detailed description, see Chapter XIV., p. 314, "The Bahamas," 'In the Trades, the Tropics, and the Roaring Forties,' by Lady Brassey.
59. RHIPIDOGORGIA FLABELLUM. *Bahamas.* "The Venus Fan." A beautiful Gorgonia of a reddish violet colour, spreading out into a large reticulated fan. This species being well known, may be looked upon as the type of the family.
60. GORGONELLA UMBELLA. *Mauritius.*
61. HARPA VENTRICOSA. *Indian Ocean.* "The Harps" are very carnivorous in their habits, they are found generally through the Indian Seas; one species, "the Imperial Harp," from Mauritius, has always been highly prized by collectors, possessing a double quantity of ribs, and many specimens have been sold at forty guineas each.
62. SERIATOPORA GUNTHERI. *Fiji.* A fine mass of pure White Coral composed of slender dendritic branches

closely interlaced; the calicles of this genus are very minute.

63. *CYPRÆA AURORA*. *Sandwich Islands*. Another fine specimen of the rare "Orange Cowry."
64. *CORALLIUM RUBRUM*. *Bona, Sicily*. This is the precious and well-known red coral of commerce. In its living condition it is covered with a membrane studded with the star-like heads of polypes.

The chief fishery ground is near Sicily, where it is obtained by means of two cross-beams to which are attached a number of long "tangles" or "swabs" of coir or hemp, which is then dragged over the beds, the branches being thus torn off; once fished over, the ground is of no further use for some time, requiring in fact ten years to recuperate itself. The depth from which it is obtained ranges from 25 to even 1000 fathoms.

65. *POCILLOPORA PISTILLATA*. *Indian Seas*. This genus, of which several species are in the collection, is generally distributed through the tropical seas, India and the Pacific.
66. *ARGONAUTA ARGO*. *Tropical Atlantic and Mediterranean*. The Nautilus shell.

The "paper" Nautilus. This shell, which has been known since the time of Aristotle, and is mentioned by Pliny, is well known in the Mediterranean. The animal is a cuttle fish, closely related to the Octopod of our own shores; its body sitting, so to speak, in the upturned shell when in the swimming position, it moves rapidly backwards by ejecting water through the funnel of the animal, which is placed in front underneath the arms. The old story of this animal floating on the surface of the sea, and spreading out its sail-shaped arms to the breeze, as told by Aristotle, and repeated many times since, is an entire fable.

67. *MEYERINA CLAVIFORMIS*. *Zebu, Philippines*. An extremely fine and interesting sponge, named after Dr. Meyer of the Royal Museum of Dresden. It belongs to the same group as the *Euplectella*.
68. *GORGONELLA UMBELLA*. *Mauritius*. A small Gorgonia.
69. *PLACUNA PLACENTA*. *Chinese Seas (South China to North*



- Australia*). "The Window Oyster." This shell is said to be sometimes used in China instead of glass.
70. RHIPIDOGORGIA FLABELLUM. *Bahamas*.
71. A SMALL BRANCHING MADREPORE. *Singapore*.
72. ARGONAUTA ARGO. *Tropical Atlantic*.
73. EXOCETUS VOLITANS. *Southern Seas*. Flying Fish. This is the specimen mentioned in 'The Voyage of the *Sunbeam*,' page 206.
74. RHIPIDOGORGIA OCCATORIA. *Bahamas*. "The Yellow Sea Fan."
75. DISTICHOPORA COCCINEA. *Australia*. A tree-like form with flat branches of this beautiful Hydroid Coral.
76. EUPLECTELLA SPECIOSA. *Zebu, Philippines*. For account see No. 1.
77. MEANDRINA LABYRINTHICA. *Bahamas*. A handsome dome-shaped block of "Brain" Coral.
78. GORGONELLA UMBELLA. *Bahamas*. A branch of light colour.
79. ISOPHYLLIA DIPSACEA. *Bahamas*. The Isophylliæ are small circular corals, having convolute ridges like *Meandrina*; but the ridges and furrows are much larger.
- 80, 81. AGARICIA AGARICITES. *Bahamas*. A handsome white coral of a fungoid growth, sometimes attaining a large size.
82. HERPETOLITHA INTERRUPTA. *Bahamas*. The Canoe Coral. An independent coral belonging to the *Fungia* tribe. This is an elongated species somewhat resembling a gigantic caterpillar; it is always much hollowed out on the under side.
- 83, 84. ARGONAUTA ARGO. *Mediterranean*. Paper Nautilus.
85. ISOPHYLLIA DIPSACEA. *Bahamas*.
86. MEANDRINA. *Bahamas*. A small block of "Brain Coral."

87. EUPLECTELLA SPECIOSA. *Zebu*. A small group mounted with various sea-weeds and shells.
88. CORALLIUM RUBRUM. *Sicily*. Red Coral of commerce. A branch growing on its native rock.
- 89, 90, 91. POCILLOPORA ACUTA. *Malayan Archipelago*. Three pretty groups of this small Madrepora.
92. NAUTILUS POMPILIUS. *Pacific*. This is a specimen with the outer shell removed so as to show the beautiful pearly character of the main body of the shell.
93. RHIPIDOGORGIA. *Bahamas*. (Sea Fan.) Growing from a block of Brain Coral (*Meandrina cerebriformis*).
94. CORALLIUM RUBRUM. *Bona, Sicily*. "The red coral" of commerce.
95. STYLASTER SANGUINEA. *Australia*. A delicate coral.
96. HERPETOLITHA INTERRUPTA. *Bahamas*. Canoe Coral. (See No. 82.)
97. ISOPHYLLIA CYLINDRACEA. *Bahamas*.
98. GORGONELLA UMBELLA. *Mauritius*.
99. POCILLOPORA BREVICORNIS. *Indian Ocean*.
100. SPONGIA OFFICINALIS. *Mediterranean*. The common bath sponge on its native rock.

The usual method of obtaining Sponges is by diving, the diver descending from a boat, with a stone so as to enable him to sink, and also provided with a bag or pouch to contain the spoil. Many accidents occur; the slipping of the stone, the loss of the rope, to say nothing of sharks and other large and predaceous fish, rendering it at all times a very hazardous occupation. Attempts have been made at various times to supersede this plan by the use of specially-made dredges, but the results are not satisfactory, the sponges suffering too much damage in the operation. When procured, to fit them for use, and to get rid of what is termed the glaire, they are exposed on the sea-shore within reach of the waves, being first carefully fastened down, and in a few days the animal matter becomes decomposed by the heat, and the sponge is cleansed by the water; afterwards requiring only such treatment as will clear it of sand and other foreign substances. Zoologically speaking, the sponge is one of the lowest known animal organisations.



101. MUREX BRASSICA. *Panama.*
102. CORALLIUM RUBRUM. *Mediterranean.* Coral of commerce.
103. POCILLOPORA ACUTA. *Singapore.*
104. CARDIUM MURICATUM. *West Indies.* The Heart Shell.
105. SERIATOPORA GUNTHERI. *Fiji.* (See No. 62.) A large and fine group.
106. HYALONEMA SIEBOLDII. *Japan.* Glass Rope Coral, sometimes called *mirabilis*.

Lady Brassey, when walking up the main street of the village in the Island of Inoshima, was struck with the appearance of these peculiar objects, and never having seen them before made inquiries as to their nature and habitat. The only answer of the fishermen was that they were brought up by their nets, and, offering them at a comparatively trifling sum, Lady Brassey purchased the whole, to find out later on that they were in reality the rare Japanese Hyalonemæ, which at that time were exciting the interest of the whole scientific world.

This singular group, when first introduced into Europe by Baron Von Siebold, was received with great incredulity, the Japanese manufacture of 'Mermaids,' and other so-called natural products not predisposing the scientific world to receive anything from that quarter with absolute trust. Indeed, although in this instance they were unjustly aspersed, yet the vitreous looking coils are often stuck upright in the stones hollowed out by boring molluscs, the spongy substance upon the top being removed. The specimens consist, as will be seen, of three parts: the first, a long bundle of glassy threads or root, one end of which is frayed out, so that when deeply embedded in its native mud the separate spicules take fast hold; and secondly, a covering or brownish coating studded with globular projections, the upper portion, close and compact, being embedded firmly in its third part, a brown cup-shaped sponge. The recent discovery of individuals of all ages in the Atlantic Seas, of a species closely akin to this, render it certain that the sponge is a part of the organism equally with the coil. The small substances on the stem of the coil are parasitic, and are the polyps of an alcyonarian zoophyte (*Palythoa fatua*) which attached itself in life to that portion exposed above the silt, and is equally present in the European species."

107. MADREPORA SPICIFERA. *Tahiti.*

In the centre is one of the largest circular-shaped madrepores known, the *Madrepore spicifera* (70). This magnificent specimen was procured personally by Lady Brassey from the coral reefs of

Papiete, Tahiti, described in her book 'Tahiti,' page 17. "Having caught a glance of this lovely specimen from a small boat, the resolve was made to procure the prize, assistance was obtained from the yacht, and after some difficulty, and with the aid of a boat-hook, it was finally secured, taken on board, cleaned, and hung up to the ceiling of the saloon, in which position, after several narrow escapes from breakage, it safely reached England."

"We wandered where the dreamy palm  
Murmured above the sleeping wave,  
And through the waters, clear and calm,  
Looked down into the coral cave."

- 108. RHIPIDOGORGIA FLABELLUM. *Bermuda.*
- 109. PINNA MURICATA. *Indian Seas.*
- 110. MADREPORA SPICIFERA. *South Pacific.* A small upright cup-shaped specimen.
- 111. SERIATOPORA GUNTHERI. *Fiji.*
- 112. PECTINIA QUADRATA. *Bahamas.* A rare coral with large convolutions on its surface.
- 113. OCULINA VARICOSA. *Bahamas.*
- 114. NAUTILUS POMPILIUS. *Pacific.* Shell in the natural state.
- 115. NAUTILUS POMPILIUS. Longitudinal section showing air chambers. (See No. 125.)
- 116. NAUTILUS POMPILIUS. *Pacific.* Shell with the outer layer removed.
- 117. TUBA SP. *Bahamas.* A fine group of cup sponges.
- 118, 119. STYLASTER SANGUINEA. *Australia.*
- 120. NAUTILUS POMPILIUS. *Pacific.* Shell with outer layer removed.
- 121. RHIPIDOGORGIA FLABELLUM. *Bahamas.*
- 122. PINNA MURICATA. *Indian Ocean.* Showing interior of valve.
- 123. MUSSA SP. *Bahamas.* A foliated coral allied to *Iso-phyllia.*
- 124. MELOBESIA POLYMORPHA. *Corea.*



125. NAUTILUS POMPILIUS. *South Pacific.*

This shell has had its outer coating carved and partly removed so as to show the air chambers and siphuncle. This cephalopod presents great points of difference from the argonaut (paper nautilus), having numerous arms and four breathing organs (branchiæ); but the shell is easily distinguishable, being very complex and divided into a series of chambers filled only with air (except the outer, or living chamber), the walls of which are pierced in the centre by a membranous tube, the whole constituting an hydrostatic arrangement by which the animal was long supposed to sink or float. Very little, however, is known of its life-history, only a few living specimens having been captured on the surface of the sea. Its habitat appears to be on the sea bottom, although the empty shells are found all over the shores of the Pacific Islands. The anatomy of the nautilus is well known from the able memoir written fifty years ago by the now venerable Professor Sir Richard Owen.

126. NAUTILUS POMPILIUS. *South Pacific.*127. MADREPORA PROLIFERA. *Bahamas.*128, 129. ISOPHYLLIA DIPSACEA. *Bahamas.*130. GORGONELLA UMBELLA. *Mauritius.*131. MADREPORA PLANTAGINEA. *Indian Ocean.*132. RHIPIDOGORGIA FLABELLUM. *Bahamas.* A very fine specimen of "The Venus Fan."133. CARAPACE OF RED SPOTTED CRAB. *Tahiti.*134. POCILLOPORA FAVOSA. *Fiji.*135. GORGONELLA UMBELLA. *Mauritius.* A small collection of these pretty Gorgonias.136. BRASSEYIA RADIAN. *Bryce Wright. Southern Seas.*

Attached to one of its corallites is another new species, *Balanophyllia Rex-Kalakaui*. The following is the description taken from the 'Annals and Magazine of Natural History,' vol. ix. No. 50:—

*Brasseya radians*, nov. sp.—Corallum isolated, simple, erect, placed on the summit of a massive irregular-shaped block, the cœnenchyma being confluent between the corallites and over the entire mass, which has grown upon a decomposed trap-rock. The whole of this basal portion is incrustated with numerous marine organ-

isms, *Polyzoa*, *Serpulæ*, *Spirorbis*, &c. Corallum simple, irregular in form, rugose, swollen at the base, and contracting towards the calice, ovoid; longest axis of largest coral at base  $1\frac{1}{2}$  inch, at calice 1 inch; height 2 inches. Costæ broad, finely punctured or granulated, without cross bars. Epitheca dense, walls thick. Periphery ovoid and indented, irregular in outline. Fossula deep; columella spongy, occupying about half the cup. Septa plain, margins simple, surfaces level with top of opening; primaries sloping forwards and downwards to the columella, arranged in five cycles of 2-3 systems; interseptal loculi open, free from trabeculæ. Colour cloudy white below the live portion of the coral, which is a chestnut brown.

Extreme height  $4\frac{1}{2}$  inches; length of largest corallite 2 inches; circumference of stem 5 inches.

*Balanophyllia Kalakauai*.—This species is represented by two examples, the largest one situated on the base of the coral just described, the other fixed to the side of one of the specimens.

Corallum simple, tall, subcylindrical; base large, spreading, adherent, slightly tuberculated, wrinkled. Costæ granulated, without cross bars; pellicular epitheca thin. Calice ovoid, walls thick; columella prominent, spongy, porous, well developed. Septa in 5-6 cycles, coalescent (as in figure), margins sinuated, surfaces granulated.

Height of largest example  $1\frac{1}{2}$  inch.

*Hab.* South Seas. Precise locality unknown.

137. *OCULINA VARICOSA*. *Bahamas*.

These beautiful branching corals seem fairly plentiful in the West Indian Seas; the pure white branches, with the radiated calices studding them rather sparsely, render it a very pretty and attractive species.

138. *ISOPHYLLIA DIPSACEA*. *Bahamas*.

139. *HIPPOSONGIA GOSSYPINA*. *Bahamas*. A fine group of this curious sponge.

140. *EUPLECTELLA SPECIOSA*. *Zebu, Philippines*. Venus' Flower Basket.

This is a remarkable specimen, the sponge having at some time received an injury to its silicious framework, repaired it by forming a fresh tube starting from the injured side; this tube although very short has a perfectly reticulated top like a matured individual.

141. *MADREPORA PLANTAGINEA*. *Singapore*.

142. *POCILLOPORA PISTILLATA*. *South Pacific*.



143. *POCILLOPORA ACUTA*. *Indian Ocean*. A fine round mass of beautiful white coral, "the terminations of the branches finely displaying the peculiar form of their extremities, these being more rounded, or flat and club-shaped than the ordinary madrepores."
144. *DISTICHOPORA COCCINEA*. *Australia*.
145. *MADREPORA ALCES*. *Bahamas*.
146. *DISTICHOPORA* SP. *Australia*. A very fine frond resembling "*Coccinea*," but of gigantic size.
147. *OCULINA VARICOSA*. *Bahamas*.
148. *DISTICHOPORA ALLNUTTI*. *Bryce Wright*. *Gilbert Islands*. The following is the description from the 'Annals and Magazine of Natural History,' vol. ix. No. 50:—

*Distichopora Allnutti*, nov. sp.—Cœnosteum fuscous orange-red in colour, paling towards the extremities, infundibuliform, the branches ramifying from a massive solid stem; base very compact; branches stout, bulbiform, nearly circular, moderately ramose, with the extremities flattened, obtusely furcate; the younger and lateral branchlets more acutely pointed; main branches closely packed, giving a very stout appearance to the entire coral. Surface of cœnosteum more coarsely canaliculated and granulate than in *D. Brasseyi*, corresponding to the vertical and transverse sections; poriferous zones on flabellar edges; gastropores closely placed to each other, with minute daetyl-pores on either side. Ampullæ small, flat separated, forming a broad stellate mass, more conspicuous on the younger branches than on the older ones, placed towards the edge of the flabellum. Walls of canals thicker than in *D. Brasseyi* or *D. coccinea*. Canalicular meshes rather large. One of the fronds is figured life-size, with transverse section. Longest axis 9 inches, shortest 8 inches. Height in all  $4\frac{1}{2}$  inches.

*Hab.* Gilbert Islands?

Figured  $\frac{1}{2}$  natural size.

One portion (left uncoloured) has been overrun with some hydroid or Actinian polyp.

149. *LIMULUS*. *Japan*. "The King Crab," a curious crustacean, having its body completely covered by a hard shield, and having a long spine-like tail.
150. *SPONDYLUS SINENSIS*. *China*.

151. *ECHINUS PURPUREUS*. *Teneriffe*. Sea urchin. The spines have been removed to show the ambulacra.
152. *METALIA PECTORALIS*. *Bahamas*. One of the largest of the Echinodermata; it is a beautiful white shell allied to *Spatangus*, and when living, covered with short spines.
153. *ECHINUS PURPUREUS*. *Teneriffe*.
154. *MAGILUS ANTIQUUS*. *Red Sea*.

The animal dwelling in this strange and curious tube does not occupy the shell-shaped portion at the top, but extends with the coral itself, filling the tube with solid shell as it grows, and always lives near the surface, from whence its nutriment is derived. The Magili, of which there are several species, are only found boring in the Brain Coral.

155. *TRIDACNA GIGANTEA*. *Indian Ocean*. The Giant Clam.  
A young shell.
156. *AGARICIA AGARICITES*. *Bahamas*.
157. *MADREPORA PLANTAGINEA*. *Indian Seas*.
158. *SPONDYLUS GÆDEROPUS*. *Mediterranean*. One of the "Thorny Oysters."
159. *PTEROCERAS AURANTIA*. *Indian Ocean*.
160. *HIPPOPUS MACULATUS*. *Singapore*. "The Spotted Clam," a common shell of the Malay Archipelago and Torres Straits.
161. *PTEROCERAS CHIRAGRA*. *Indian Ocean*. "The Spider Shell."
162. *ISOPHYLLIA CYLINDRACEA*. *Bahamas*.
163. *HARPA VENTRICOSA*. *Mauritius*. The Harp Shell.
164. *XENOPHORA SOLARIS*. *Borneo*. "The Sun Trochus." A curious shell allied to the periwinkles.
165. *TRIDACNA GIGANTEA*. *Torres Straits*. A young shell of the "Giant Clam."
166. *RHIPIDOGORGIA FLABELLUM*. *Bahamas*. Growing from a small *Astræa*.



167. TUBIPORA MUSICA. *Singapore.* The Organ Coral.

This well-known species, so appropriately named from its fanciful resemblance to the pipes of an organ, belongs to the division of the Invertebrates known as the Alcyonaria, some of which, like the present species, secrete lime in the form of tubes, others, like the Gorgoniæ, Primnoæ, etc., having horny sheaths. In the Tubipora the animal in each colony is perfectly distinct, building its own tube, but at certain intervals uniting with its fellows by means of a thin cross plate, so making the one whole mass. Seen in life, nothing can be more beautiful, the colours of the tubes, uniting with the green, lilac, or rose-like tinted polyps, forming a very perfect picture.

"Each fine film became  
An independent creature, self-employed,  
Yet but an agent in a common work."

168. FUNGIA NANA. *Pacific.*

The Fungoid corals are a curious family, and under the name of "Mushroom Corals" are well known. They are among the largest of living Actiniform polypes, each coral being the framework of an independent individual, and so far resembling the common sea-anemones of our own coast. These however are entirely without any corallium (coral) like the Fungias. In the hollows and depressions of the reefs all through the Pacific, these corals are very plentiful, they are never attached, and the resemblance of the different species to each other is very striking.

169. HIPPOPUS MACULATUS. *Torres Straits.* "Spotted Clam."170. MEANDRINA (DIPLORIA) CEREBRIFORMIS. *Bahamas.* The Brain Coral.171. FASCIOLARIA TULIPA. *Bahamas.* "The Tulip Shell."

Handsomely variegated and growing to a good size. It is one of the largest shells of the Bahamas and Bermuda.

## 172. HERCINA PALMATA. A fine and delicate sponge, forming part of a group of Corals, Sponges and Euplectellæ.

## 173. EUPHYLLIA TURGIDA.

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From the top of the interior of the centre case are suspended several long strings of shells containing several kinds of a beautiful small Trochus found on the shores of New Zealand

and some other islands of the South Pacific. These little shells occupy a similar position on the rocks of the Southern Seas, as the small Trochi and Periwinkles on our own shores, but when the outer coat is removed the pearly layer underneath is far more varied in lustre and colour. There are about a dozen known species, of which three, *Elenchus bellulus*, *E. phasianellus* and *Bankivia varians*, are shown here, and are those possessing the best colour and lustre.

These shells have been largely used of late years as articles of personal adornment by ladies of æsthetic taste, and have become a considerable article of commerce, in consequence of their exquisite iridescent colours.







## TABLE CASES—SOUTH SIDE.

174.



ELITODES OCHRACEA. *Australian Seas.* A large Gorgonia with knotted stem.

175. MADREPORA PROLIFERA. *Bahamas.*

Several fine and perfect branches of this beautiful white coral are shown; the peculiar character of the cluster of small branches at the end of a main stem are well exhibited.

176. PAVONIA KNORRI. *Indian Ocean.*

177. MILLEPORA ALCICORNIS. *Bahamas.* One of the "Hydroid" Corals.

178. MEANDRINA (DIPLORIA) CEREBRIFORMIS. *Bahamas.* "Brain Coral."

This is the specimen referred to by Lady Brassey in her new book 'In the Trades, the Tropics, and the Roaring Forties.'

179. MUSSA ASPERRIMA. *Pacific.*

180. DENDROPHYLLIA JAPONICA. *Japan.* A very fine and massive branch of this curious coral. It has a central stem from which ramify branches bearing at short intervals a single corallite. They are usually black or brown in colour, and attain a large size. The name is derived from their tree-like appearance.

181. CRYPTOBASIA SP. A nearly circular dome-shaped coral of a convex character, approaching *Herpetolitha* in structure (No. 82).

182. FUNGIA EHRENBERGII. *Indian Ocean.*
183. MADREPORA ALCES. *Bahamas.*
184. ALCYONARIA SP. *English Channel.*
185. FLUSTRA. *English Channel.* One of the foliated Polyzoa often found on the shores.
186. ANTENNULARIA ANTENNINA. *English Channel.* One of the Sertularian Zoophytes.
187. ECHINUS MAMILLATUS. *Japan.* A very fine and perfect "Sea Egg" with large broad spines.
188. CLYPEASTER SUB-DEPRESSUS. *Bahamas.*
189. METALIA PECTORALIS. *Bahamas.* (See No. 152.)
190. LINCKIA PACIFICA. *Pacific Islands.*
191. ECHINUS ESCULENTUS. *Bermuda.* These larger Echinoderms are sometimes used as food.
192. ECHINUS PURPUREUS. *Teneriffe.*
193. SPONDYLUS VARIANS. *Mauritius.*
194. OVULUM OVUM. *New Guinea.* "The Poached Egg."  
These purely white shells are closely allied to the Cowries, and are often strung together as necklaces and other ornaments by the islanders of the South Pacific. Some specimens may be seen among the Ethnographical curiosities of this collection.
195. VOLUTA PACIFICA. *New Zealand.*
196. MUREX HAUSTELLUM. *Philippines.* "The Woodcock's Head." A curious shell, the animal, having carnivorous habits, is found among the coral reefs, it is widely distributed.
197. CONUS GEOGRAPHUS. *Ceylon.* The Geographical Cone.
198. VOLUTA MARMORATA. *Australia.* The Volutes are distributed over all the warmer seas of the globe, and with the Cones are among the most beautifully coloured shells; they are a very interesting family, and extend back in geological time to the lowest Tertiaries, and in the Eocene are



almost more plentiful than any other carnivorous Gasteropod.

199. *TROCHUS NILOTICUS*. *China*.
200. *STROMBUS PUGILIS*. *Gulf of Mexico*. The Pugilistic Strombus.
201. *FUSUS DUPETIT-THOUARSI*. *Pacific*. One of the "Spindle Shells."
202. *FUSUS PROBOSCIDALIS*. *Indian Ocean*. A young shell of one of the largest living Gasteropods.
203. *VOLUTA VESPERTILIO*. *Australia*. "The Bat Volute."
204. *TRITON SP.* *North Australia*.
205. *HARPA VENTRICOSA*. *Mauritius*. "Harp Shell."
206. *STROMBUS TRICORNIS*. *Red Sea*.
207. *MUREX REGIUS*. *Torres Straits*. This shell extends entirely across the Pacific, specimens having been found at Panama.
208. *MUREX RAMOSUS*. *Philippines*.
209. *CYPRÆA CERVUS*. *Philippines*. The Stags-horn Cowry.
210. *TRITON ANUS*. *Indian Ocean*. The "Grimace" Triton.
211. *OLIVA TREMULINA*. *Indian Ocean*. The "Olives" are very active animals, and at low water may be seen gliding swiftly over the sands; they are fished for in the Mauritius with lines baited with pieces of flesh or fish.
212. *TEREBRA CREMULATA*. *Indian Ocean*.
213. *TEREBRA DIMIDIATA*. *Indian Ocean*. "The Needle Shells" are a very numerous family, mostly tropical.
214. *MITRA PAPALIS*. *Mauritius*. "The Pope's Mitre."
215. *MITRA EPISCOPALIS*. *Mauritius*. "Bishop's Mitre."
216. *CONUS LIGNARIUS*. *Singapore*. "The Box-wood Cone."

The "Cones" are very numerous in species, about five hundred being known; many are conspicuous for their great beauty and value; *C. Gloria-Maris*, the Glory of the Seas, has realised as much as 100 guineas within the last fifty years; they are all predaceous animals, living in the clefts and hollows of the coral reefs in all the warmer

latitudes; some species, such as *C. aulicu* (No. 220), bite when incautiously handled.

217. *CONUS SUMATRENSIS.* *Sumatra.*
218. *CONUS TEXTILE.* *North Australia.*
219. *CONUS STRAMINEUS.* *Indian Ocean.*
220. *CONUS AULICUS.* *Ceylon.*
221. *CONUS IMPERIALIS.* *Singapore.*
222. *CONUS MILLE-PUNCTATUS.* *Indian Ocean.* The Thousand-spotted Cone.
223. *CONUS LITERATUS.* *Ceylon.* "The Lettered Cone."
224. *CONUS TEXTILE.* *Honolulu.*
225. *VOLUTA SCAPHA.* *South Africa.*
226. *PURPURA PATULA.* *Chili.*
227. *MUREX MELANOTRAGUS.* *West Coast of S. America.*
228. *PTEROCERAS CHIRAGRA.* *Tahiti.* "Spider Shell."
229. *CONUS CAPITANEUS.* *Malay Archipelago.* "The Captain Cone."
230. *CONUS MILLE-PUNCTATUS.* *Pacific Ocean.* The upper part of the outer whorl of this shell is cut and used as an armlet by the Fiji and Solomon Islanders.
231. *CONUS NOCTURNUS.* *Singapore.* The Night Cone.
232. *CYMBA CYMBIUM.* *Indian Ocean.*
233. *CYMBA DIADEMA.* *Indian Ocean.*
234. *CASSIS VIBEX.* *Indian Ocean.*
235. *STROMBUS LUHUANUS.* *Philippines.*
236. *HELIX MELANOSTOMA.* *Ceylon.* A very plentiful snail shell in that island.
237. *DOLIUM POMUM.* *Indian Ocean.* The "Tun Shell."
238. *CONUS HEBRÆUS.* *Andaman Islands.* The Hebrew Cone, so called in allusion to the similarity of the markings to Hebraic characters.
239. *CONUS MARMOREUS.* *Singapore.*
240. *CONUS MILES.* *Indian Ocean.*



241. *CYPRÆA TESTUDINARIA*. *Indian Seas*. "The Tortoise Cowry."

The cowries are found in nearly all the warm and temperate seas of the globe, but the finer and more brightly coloured species mostly in the coral-bearing regions of the old world; they are found under reefs and rocks at low water, and some of the species form a considerable article of trade for ornamental purposes; and in the case of the Money Cowry (*C. moneta*), large quantities are imported from the Pacific and Eastern islands, through Singapore to Liverpool, whence they are exported again to Africa, to be used as a medium of currency by many of the half-savage tribes.

242. *CYPRÆA LYNX*. *Indian Ocean*.

243. *CYPRÆA CAURICA*. *Indian Ocean*.

244. *CYPRÆA PANTHERINA*. *Singapore*. "Panther Cowry."

245. *CYPRÆA ARGUS*. *Malay Archipelago*. "The many-eyed Cowry."

246. *CYPRÆA EXANTHEMA*. *Bahamas*.

247. *CYPRÆA TALPA*. *Indian Ocean*. "The Mole Cowry."

248. *CYPRÆA TESTUDINARIA*. *Indian Seas*. "Tortoise-shell Cowry."

249. *CYPRÆA TIGRIS*. *Indian Seas*. "Tiger Cowry."

250. *CYPRÆA MAPPA*. *Malay Archipelago*. (Map Cowry.)

251. *CYPRÆA MAURITIANA*. *Indian Ocean*.

252. *MUREX PALMA-ROSÆ*. *Malay Archipelago*. "The Rose Bush Murex."

253. *PTEROCERAS LAMBIS*. *Java*.

254. *MUREX BICOLOR*. *Sumatra*.

255. *STROMBUS TRICORNIS*. *Red Sea*.

256. *GORGONELLA RUBRA*. *Australia*.

257. *CORALLIUM RUBRUM*. *Bona, Sicily*. Pink variety on rock.

258. *ANTIPATHES VIRGATA*. *Red Sea*. A stem of black coral.

259. *CALLOGORGIA VERTICELLATA*. *Pacific*. A rare Gorgonia of delicate structure.

260. *CALLOGORGIA*, sp. *Pacific*.

261. *RHIPIDOGORGIA OCCATORIA*. *Bahamas*.

262. *PTEROGORGIA PINNATA*. *Bahamas*.  
263. *MILLEPORA COMPLANATA*. *Bahamas*.  
264. *STYLASTER SANGUINEA*. *Australia*.  
265. *DISTICHOPORA COCCINEA*. *Australia*.  
266. *DISTICHOPORA* SP. *Australia*. A very fine frond which appears to be of an undescribed species, it differs materially from *D. coccinea*, both in size and the massive character of the branches.  
267. *GORGONELLA UMBELLA*. *Mauritius*.  
268. *LEPTOGORGIA*, SP. *Bahamas*.  
269. *PTEROGORGIA PINNATA*. *Bahamas*.  
270. *RHIPIDOGORGIA OCCATORIA*. *Bahamas*. "The Yellow Sea Fan."  
271. *AGARICIA AGARICITES*. *Bahamas*.  
272. *MADREPORA PUSTULOSA*. *Indian Ocean*.  
273. *ASTRÆA PALLIDA*. *Fiji*.  
274. *MADREPORA PLANTAGINEA*. *Indian Ocean*.  
275. *MADREPORA CERVICORNIS*. *Bahamas*.  
276. *MADREPORA PROLIFERA*. *Bahamas*.  
277. *POCILLOPORA ACUTA*. *Pacific*.  
278. *FUNGIA EHRENBERGII*. *Indian Seas*.  
279. *MADREPORA ALCES*. *Bahamas*.  
280. *PORITES ASTRÆOIDES*. *Fiji*.  
281. *MADREPORA ASPERA*. *Pacific*.  
282. *MADREPORA PROLIFERA*. *Bahamas*.  
283. *DENDROPHYLLIA NIGRESCENS*. *Japan*.  
284. *POCILLOPORA BREVICORNIS*. *Manilla*.  
285. *MERULINA AMPLIATA*. *Manilla*.  
286. *PACHYSERIS SPECIOSA*. *Indian Ocean*.  
287. *FUNGIA PAPILLOSA*. *Fiji*.  
288. *AGARICIA FRAGILIS*. *Malayan Archipelago*.  
289. *MADREPORA CERVICORNIS*. *Bahamas*.

"The Stag Horn Coral," a very plentiful and also the finest branching Madrepore in the West Indian Seas, sometimes attaining a height



of fifteen feet (Dana), the branches, however, are not so numerous as in others of this family. The Madreporaceæ are found over all the Equatorial regions in abundance, and all of them contribute largely to the formation of coral reefs. The polyps of this genus are individually very small, but are much crowded together, and the coralllets (cells) may be seen on the branches in immense numbers.

290. AGARICIA AGARICITES. *Bahamas.*
291. MADREPORA ROUSSEAU. *Indian Ocean.*
292. OCULINA VARICOSA. *Bahamas.*
293. MEANDRINA (DIPLORIA) CEREBRIFORMIS. *Bahamas.*
294. POCILLOPORA VERRUCOSA. *Indian Seas.*
295. OCULINA VARICOSA. *Bahamas.*
296. FUNGIA LINNÆ. *Fiji.*
297. MADREPORA ALCES (VAR.) *Bahamas.*
298. MADREPORA ALCES. *Bahamas.* A very fine branch of this handsome coral.
299. AGARICIA AGARICITES. *Bahamas.*
300. MADREPORA PROLIFERA. *Bahamas.*
301. ISOPHYLLIA DIPSACEA. *Bahamas.*
302. AGARICIA AGARICITES. *Bahamas.*
303. OCULINA VARICOSA. *Bahamas.*
304. FUNGIA LINNÆ. *Fiji.*
305. MEANDRINA LABYRINTHICA. *Bahamas.*
306. DENDROPHYLLIA NIGRESCENS. *Japan.*
307. ASTRÆA PALLIDA. *Fiji.*
308. PORITES FURCATUS. *Pacific.*
309. DENDROPHYLLIA NIGRESCENS. *Japan.*
310. MADREPORA PLANTAGINEA. *Manilla.*
311. CYATHOHELIA AXILLARIS. *Manilla.* A very curious and rare Caryophylloid coral.
312. POCILLOPORA BREVICORNIS fixed to an Astrea. *Fiji.*
313. DENDROPHYLLIA NIGRESCENS. *Japan.*



## SOUTH SIDE.

### MISCELLANEOUS OBJECTS.

PICTURES, POTTERY, SAVAGE WEAPONS, AND ETHNOGRAPHICAL CURIOSITIES PRINCIPALLY SUSPENDED FROM THE WALLS.

(*Left on entrance*).

314.



ETUAN HAT. Belonging to a woman.

315. PHOTOGRAPH. *Normanhurst Court and grounds.*

316. GIRL'S PETTICOAT. *Ponapi, Caroline Islands.*

317. MAT. Worn also as a skirt. *Milti Atoll, Marshall Islands.*

318. SHIELD containing the following paintings :

The Solemn Entry of Philip L'Isle Adam. Painting on ivory. A copy of a picture in the palace of the Order of St. John of Jerusalem at Malta. Height, 6 in. ; width, 6 in.

Portrait. Philip L'Isle Adam, Grand Master of the Order of St. John of Jerusalem (1521-1534). Painting on ivory. A copy of a picture in the palace of the Order of St. John of Jerusalem at Malta. Height, 6. ; width, 6 in.

Portrait. Giocondo Accarigi, Secretary of the Order of St. John of Jerusalem. Painting on ivory. A copy of a picture in the palace of the Order of St. John of Jerusalem at Malta. Height, 6 in. ; width, 6 in.

Portrait of Lady Middleton. Miniature painting on ivory, from the original by Sir Godfrey Kneller, at Hampton Court.

Portrait of Countess of Peterborough. On ivory, from the original by Sir Godfrey Kneller, at Hampton Court.



Portrait of Countess of Essex. On ivory, from the original by Sir Francis Kneller, at Hampton Court.

Portrait of Duchess of St. Albans. On ivory, from the original by Sir Francis Kneller, at Hampton Court.

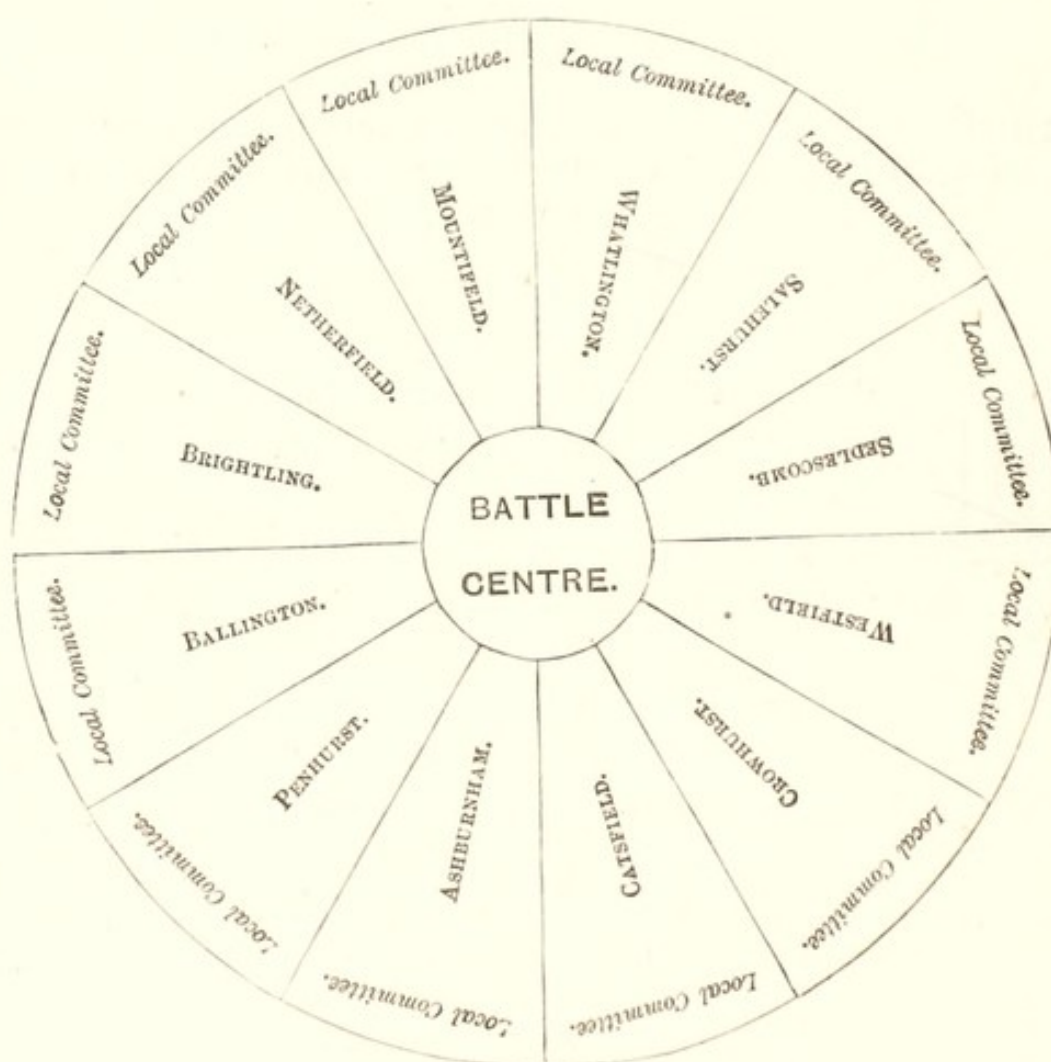
Mr. and Mrs. Allnutt. Father and mother of Lady Brassey.

319. PLUME OF BLACK FIBRE. *South Seas.*

320. SCARF. Silk embroidered in gold. Chinese. (*Canton.*)

321. PORTRAIT OF VIRGIN MARY, εἰκών, "image." *From Moscow.*

322. ST. JOHN AMBULANCE ASSOCIATION. Plan of Battle Centre.



It is desired to draw attention to an admirable scheme proposed by Lady Brassey, to whom, for her exertions in furtherance of the good cause in many quarters, much gratitude is owing. Lady Brassey suggests that at every

large town where centres are formed, the outlying districts should be constituted as branches, after the manner of radii or spokes of a wheel. Classes being held in each branch and ambulance *matériel*, especially stretchers, and hampers containing splints, bandages, and other appliances for "First Aid" deposited at the Post Office, or some other central and easily accessible position. The following will exemplify the system already pursued at one centre—Battle—the surrounding villages being the subsidiary depôts.

The advantages of the system are: concentration of all correspondence with head-quarters in London (which would pass through the centre alone), favourable opportunity afforded for the extension of the work, and great saving of expense when examiners are required. At some of the larger centres, as Middlesborough-on-Tees, Wigan and others, a similar plan has been adopted, with extremely good results.

323. ST. JOHN AMBULANCE ASSOCIATION. Plan of Bexhill Centre. (For illustration, see page 30.)

324. OBJECTS AND RESULTS OF ST. JOHN AMBULANCE ASSOCIATION.

#### ST. JOHN AMBULANCE ASSOCIATION.

HEAD OFFICES—ST. JOHN'S GATE, CLERKENWELL, LONDON, E.C.

##### *Objects.*

(a.) The dissemination of instruction in "First Aid," *i.e.*, the preliminary treatment of the sick and injured, *pending the doctor's arrival*.

(b.) Lectures to women on Home Nursing and Hygiene.

(c.) The deposit in appropriate localities of material (such as stretchers, hampers, splints, bandages, &c.) for use in case of accident.

(d.) The development of Ambulance Corps for the transport of the sick and injured.

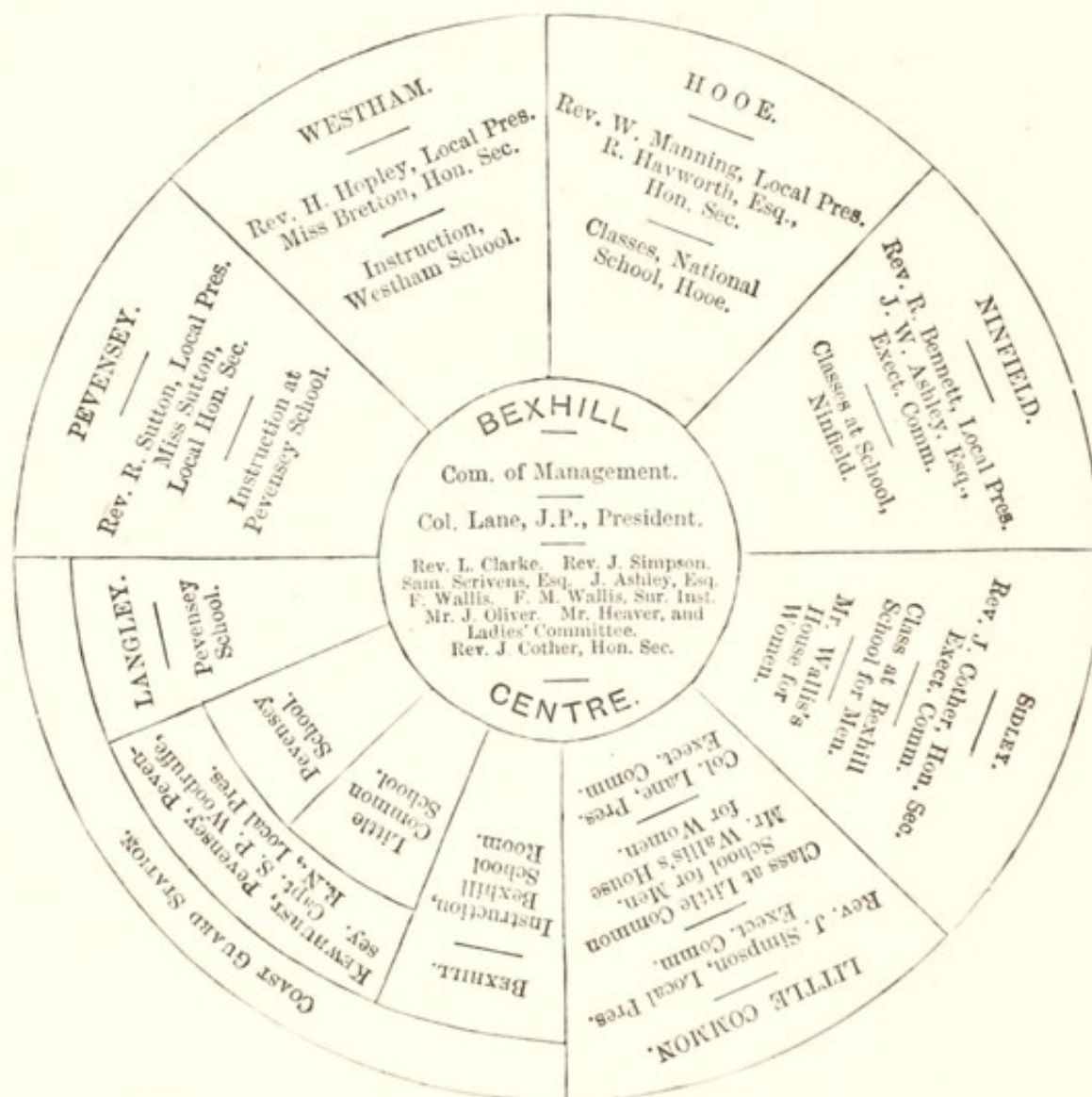
##### *Need for.*

It has been proved by Parliamentary returns and official statistics that—



1. Between 2000 and 3000 lives are annually lost by drowning in England and Wales in *inland* waters *alone*. Many of these lives might be saved if only the proper treatment were observed on recovery of the bodies.

2. A thousand lives on an average are yearly lost on railways,



while four or five times that number of persons are more or less injured.

3. During ten years the fatal accidents in London streets amounted to 2195, and the injuries to 28,071. The average is proportionately the same in most towns.

4. In collieries and mines the annual loss of life is at least 1000, and it is stated that for every person killed six are injured.

Workmen employed in dangerous occupations are naturally more exposed to accidents, but they possess no monopoly of danger. The country gentleman may as easily break a leg or a collar bone in the hunting field, as the ordinary foot passenger treading on a cabbage leaf or a piece of orange peel on the pavement may slip and dislocate an ankle. Even a simple act, such as breaking the glass when drawing the cork from a wine bottle, may cut an artery, and inflict such an injury that life will be lost unless immediate steps be taken to arrest the bleeding. A child can do this if properly taught. Rich and poor alike suffer from ignorance of "first aid." But recently a wealthy lady in a provincial town slipped when alighting from her carriage and broke her leg. Had a surgeon, or an ambulance pupil been on the spot the limb would have been properly handled, splints (extemporised or otherwise) applied, the lady placed in a recumbent position on a stretcher, which would have been extemporised had a proper one not been available, and the patient would in all probability have been well in a few weeks. The well-intentioned, but ignorant bystanders replaced the lady in her carriage, doubled up the broken leg, a "simple" fracture became "complicated," and fatal results ensued. Many similar instances might be quoted. The St. John Ambulance Association is striving, already with great success, to remove this lamentable ignorance.

#### *Results.*

Since the institution of the movement in 1877, many hundreds of "Detached" Classes and 250 "Centres" have been formed in all parts of the world, and upwards of 82,000 certificates of proficiency have been awarded. Instances of efficient "first aid" rendered by certificated pupils are of almost daily occurrence, and numerous cases, corroborated by the highest medical testimony, have been reported to St. John's Gate and are there registered certifying that life has been saved by pupils through the application of the knowledge acquired.

#### *Patrons.*

Among the Presidents, Vice-Presidents, Life and Annual Members and Subscribers are Her Majesty the Queen and other members of the Royal Family, the Archbishop of Canterbury, and Clergy of all denominations; many leading Members of both Houses of Parliament; the Home Office; the Corporation of the City of London, and several of the City Companies. The movement has also had the cordial support of many of the most eminent members of the Medical Profession. T.R.H. the Princess of Wales, Princess Christian, the Duke of Connaught, the Duke and Duchess of Teck, and Prince Edward of



Saxe-Weimar have presented certificates at public meetings. H.R.H. Princess Christian has attended the classes and obtained both certificates after passing the usual examinations, and the late lamented Duke of Albany also attended the Classes.

*Pecuniary Support.*

Many classes are self-supporting, but there are innumerable others especially those for the Naval and Military services, the Mercantile Marine, Police, Firemen, Railway and Dock employés, Colliers, Miners, and the like, entailing very heavy expenses on the Executive, which is much hampered by its limited funds. The Committee therefore urgently appeal for increased substantial pecuniary support, especially for annual subscriptions, which are sadly needed, and in so doing desires only to remind its supporters that its labours are limited by no distinction of race, or creed, or political party, but have for their object only the application of that precept which is the fundamental principle of the old Order of St. John "PRO UTILITATE HOMINUM," service in the cause of humanity.

Subscriptions and donations will be thankfully received and acknowledged by the Treasurer or Honorary Secretary of the Local Centre.

325. PORTRAIT OF LADY BRASSEY. In water colours, by F. A. Tilh.
326. ST. JOHN AMBULANCE ASSOCIATION. Plan of centres at Battle, Rye, Bexhill, and Hastings.
327. ORDER OF ST. JOHN OF JERUSALEM. Illuminated certificate admitting Lady Brassey as a Lady of Justice of the said Order. At the bottom is the seal and medal in connection with the St. John Ambulance.
328. CERTIFICATE. St. John's Ambulance.
329. "THE VILLAGE AMBULANCE HAMPER." Suggested by Lady Brassey. A handy little hamper about 20 inches in length, 10 inches in breadth, and 6 or 7 inches deep, covered on the outside, and lined inside the lid with fine American cloth, and divided longitudinally by a basket-work partition, and containing a marvellous assortment of simple appliances admirably chosen, fastened with a strap when closed. The contents are as follows:

Caustic.  
Set of splints.  
Lint.  
Cotton wool.  
Tourniquet.  
Pins.  
Silk.  
Thermometer.

Roller bandage.  
Triangular bandage.  
Tape plaster.  
Knife.  
Scissors.  
Carbolised tow.  
Needles.  
Sponge.

Four Bottles containing,

Ammonia.  
Styptic.

Carminative mixture.  
Aperient mixture.

Box of caustic powders.

330. THE PORTABLE AMBULANCE HAMPER. Suggested by Lady Brassey. A very handsome little package of basket-work, when closed it is easy to carry. It measures about 16 inches by 10, is about 6 inches deep, and contains a marvellous lot of rudimentary, and some a little advanced, surgical appliances. Altogether superior to either No. 329 or 331.

The contents are as follows :

Caustic.  
Roller bandages.  
Triangular bandages.  
Lint.  
Cotton wool.  
Tape plaster.  
Carbolised tow.  
Silk.  
Scissors.

Thermometer.  
Sponge.  
Needles.  
Safety pins.  
Knife.  
Forceps.  
Dressing forceps.  
Splints.

Four Bottles containing

Ammonia.  
Carminative mixture.

Styptic.  
Aperient mixture.

Box of caustic powders.

A very great advantage in all these baskets is in the fastenings, there are no locks! consequently no keys to lose, and at a critical moment they are easily undone.

331. ST. JOHN AMBULANCE ASSOCIATION. Ambulance Hamper.  
A strong basket covered with brown cloth, of about 20 inches long by 6 broad and 6 deep, with a longitudinal division,



full of useful articles in cases of accident. The following is a list of contents :

- 1 Set splints.
- 1 Elastic tourniquet.
- 2 Sponges.
- 2 Packets patent lint.
- 4 Roller bandages (wide and narrow).
- 4 Triangular bandages.
- Cotton wool
- Marine lint
- Patent plaster

} In tin cases.

Knife, scissors, thread, needles, pins, &c.

332. FRAME containing illustration and account of Silvester method of restoring the apparently dead, recommended by the Royal Humane Society.

333. TAPESTRY. *Japanese*. Purchased at the International Fisheries Exhibition, 1883.

334. QUERN STONES. Made from blocks of Mica schist, used for grinding corn by most of the primitive inhabitants of the world.

335. UPPER PORTION OF QUERN. *Tap, Western Caroline Seas*.

It is said that some of the smaller specimens were used as currency.

336. DRESS OF VEGETABLE FIBRE. *Fiji*.

337. GOURD. *Solomon Islands*.

It is intended to hold chunam or lime to chew with the prepared betel nut.

338. COLOURED RUGS. *West Indies*.

339. BOWL. *Fiji*.

Used for holding "Cava," the beer of the Polynesians, which is consumed at all feasts and ceremonies.

340. WOODEN DISH. *Korror, Pelew Islands*.

341. REEVES PHEASANT. (*Syrnaticus Reevesii*). *China*. The tail of these birds is sometimes 9 ft. long.

342. CARAPACE OF TURTLE (*Chelonia*). *West Indies*.

343. HORSE GIRTHS. *Africa*.

344. HAWKSBILL TURTLE. (*Chelonia imbricata*). Bahamas. It is this species which yields the tortoise-shell of commerce.
345. HAWKSBILL TURTLE. Bahamas.
346. DRAWING. J. N. Johnston, A.R.I.B.A., representing the mound or *Tumulus* in which the Viking Boat was discovered at Gokstad in Norway. A boat built upon the same lines as this ancient vessel forms part of the equipment of the *Sunbeam*, and is the identical yacht's gig which sank in Loch Carron. The following is a description of the discovery of the original vessel :—

It was the custom among the ancient Norsemen, according to the Saga writers, to inter the principal chiefs and kings with their favourite horses and dogs, whilst the Sea Kings were sometimes burnt or buried in their vessels. This mode of burial is reported to be known even in the British Isles. A description, in 1785, of a so-called ship interment, is given as having taken place at Dundalk; and another account in the *Archæologia*, vol. vii., 1789, of a similar burial at Costello, county Mayo, Ireland. It is well known that the Icelanders followed this mode of interment. The first vessel found in Scandinavia was in the parish of Borre, in 1852; the second was discovered by Professor Englehardt in 1863, near Nydam, Schleswig; whilst the third, in 1867, was brought to light at Tune in Norway. None of these, however, were of the importance of the "Viking" ship, discovered in 1880, now occupying our attention. This is in consequence of its great preservation, it being buried in a blue clay specially adapted by its excellent qualities for the preservation of wood. It must not be forgotten that this original "Viking" ship has been buried about 1000 years.

Excavations have been scientifically carried on for years in Norway among the grave-mounds called by the natives "Kongs Hangs," or Kings' Hills, meaning the sepulchres of some chiefs or kings, but with little success. One cannot be surprised, therefore, at the deep interest felt upon the excavation of this relic, which carries us back to the era when the Vikings of the North sailed upon their famous expeditions, and extended their ravages to our own shores and the coast of France. The principal dimensions of the boat are—

Length between the rabbets and gunwale	..	77 ft. 11 in.
Breadth, extreme	.. .. .	16 ft. 7 in.
Depth from top of keel to gunwale amidships		5 ft. 9 in.

It was found at the little town of Sandefjord, in one of the "Hangs"



situated near Gokstad, which had always been looked upon by the inhabitants with awe, or that same superstition which has unfortunately been the means of retarding the advancement of science and knowledge in all nations, and prevented the inhabitants from making any attempt to discover the hidden treasures the hills contained. At last, however, science, which neither creeds nor superstition can deter from advancing, stepped in and rescued the great relic before it had wasted away.

Two sailors were the first to dig into the tumulus, and upon discovering some woodwork, communicated with the President of the Norway Archæological Society, Mr. Nicolaysen, under whose direction the whole of the excavation took place. The barrow, which measures 162 ft. 6 in. in length by 139 ft. 9 in. in breadth, and 16 ft. 3 in. in height, is about 5000 ft. from the seashore, in a kind of creek. It was circular in form, and very large. The ship itself was interred on her keel in a blue clay, the stems reaching up to a mixture of sand and clay on the top. This stratum had unfortunately disappeared, and with it the dragon-heads which the old Sagas refer to as being raised high on the stem, and which accounted for the Norsemen calling their vessels the "Dragons," in contradistinction to trading ships.

The vessel is of oak, clinker built (for longitudinal section see No. 827), the boards connected with iron nails, whilst the seams are caulked with cows' hair spun into three stranded cord. The planking is fastened to the frames with the roots of trees. Its average thickness is one inch, whilst the scantling varies considerably. Along the rail were shields hung as decorations: a general custom in Norway in the middle ages, corresponding to decking a vessel with flags on any festive occasion. A few of these shields have been preserved and restored in the original to their proper positions. They are circular in shape, made of thin wood, with an iron boss in the centre, and a strip of the same metal in the rim. The ship, like all the vessels of the Viking period, was propelled by oars and canvas; one mast was used, which was lowered for a battle, or when rowing in a contrary direction of the wind. Ponderous beams were laid at the step of the mast to assist the raising and lowering as well as to afford a support which the thin scantlings were hardly sufficient of giving. Several of the oars have been preserved, and are about seven and a half yards long, varying slightly according as they were used amidships or at the extreme ends of the vessel. They were plied through holes bored into the third strake from the top by men probably standing, as no trace has been discovered of thwarts or seats. There were 16 holes in each side, thus requiring 32 men at the oars alone; it is therefore probable that not less than 40 men were the complement of the vessel. There was no deck, only



loose boards resting on shoulders cut into the frames. Protection against the weather was furnished, as is proved by the discovery of four supports, together with cloth and cords. The tent-cloth is made of a fine white woollen texture, the cords are of hemp, whilst the ship's ropes are all made of bast. The mode of steering the Viking vessels, hitherto unknown except by the drawing of a rudder on the Nesland church door pillar, which agrees with the Viking, has been plainly shown by the discovery of this relic (see No. 828). The rudder was hung forward of the stern-post on the right-hand side; hence the "starboard" or steering board, to indicate the right hand side of a ship. The sepulchre, or grave chamber, was built of wood near the middle of the vessel, between the mast and the stern. It has the form of a gable roof, the sides being of round logs and the gable ends of planks placed on end. It was in this chamber the remains of the Viking were deposited, no doubt on a trestle or bedstead, fragments of such having been found in the chamber. The port side of the boat had been broken into, and the arms of the Viking stolen. The bones, however, were left behind. Dr. Heiberg, the eminent Norwegian anatomist, concludes, after examining them, that the chief was 6 ft. 3 in. in height, and died about the age of fifty, probably from chronic rheumatism.

A miscellaneous series of objects was found in the grave chamber (see No. 829), including several iron fish-hooks, and a turned draughtsman of horn; also, two ornamental mountings for belts, one of bronze and the other of lead. Of wearing apparel of the deceased a few small fragments only were found, some of gold brocade. A number of animals were sacrificed at the burial, the bones of at least twelve horses and six dogs, also the bones and feathers of a pea-fowl, having been collected from different parts of the mound.

Numerous other articles of antiquarian value were found in or about the ship, including, three oak boats, clinker built, with a kind of rowlock fastened to the gunwale instead of holes for the oars; the stock of the anchor (the anchor, which was made of iron, had almost corroded away); a landing-stage or gangway; fragments of sleeping-berths, which were so made as to take to pieces and stow away; portions of a finely-carved chair, which had evidently been the seat of state of the Viking, fixed in the after-part of the ship; and a series of kitchen utensils, including a very large and massive copper kettle with chain, bits of a smaller one, tubs and buckets of different sizes, wooden plates, and carved drinking-cups. The cooking utensils could only have been of service when coasting, as there is no trace of a fire-place, which would have been difficult to provide in an open vessel of this kind.

This "Viking" boat may be looked upon as perhaps one of the smallest sea-going vessels of the period, but there is no doubt that the



larger Viking war-boats were built upon precisely the same principle. That it is one of the most important and interesting archæological discoveries ever made there can be no question, and it sheds an unexpected ray of light over the most interesting Scandinavian period since the Christian era.

347. THREE ORIGINAL OARS. *Viborg, Jutland.* From a Viking tomb.

These wooden double paddles were found, with some stone implements, imbedded in clay, in a turf moor at Viborg in Jutland. They were probably used with the smaller boats belonging to the larger Viking ships, and are about 1000 years old. They were excavated by Herr Arthur Feddersen of Viborg, and, considering their age, are in a very good state of preservation.

348. DIPLOMA. International Fisheries Exhibition, 1883.

This diploma was awarded, together with the gold medal, to Lady Brassey for her interesting exhibition of Corals, Shells, and Boats.

349. MEDALLION AND FACSIMILE OF GOLD MEDAL, International Fisheries Exhibition, 1883, awarded to Lady Brassey.

350. SERIES OF GORGONIA AND PTEROGORGIA. For full description of similar species see Centre Case.

351. SERIES OF AMPHORÆ OF VARIOUS SHAPES. See Cyprian Antiquities.

352. CARAPACE OF TORTOISE. (*Testudo radiata*.) *Africa*.

353. WOODEN IMPLEMENT. *Solomon Isles*. A variety of Boomerang.

354. HOLSTER. *Algerian*. Leather embroidered.

355. RUDE VIOLIN, ornamented with the Money Cowry. (*Cypræa moneta*). *Pacific*.

356. NEGRO SOLDIER'S HEADDRESS. Decorated with the Money Cowry, from the Soudan.

357. NECKLACE OF COD FISH BONES. *Norway*.

358. GUNS. Flint-locks, the long stock of one of them inlaid with ivory and coral. *Arab*.

359. POWDER FLASK, with shot-pouches, leather studded with brass knobs. *Africa*.

360. CARVED CANOE. *Papua*. This and the four following numbers were procured by Dr. Comrie of H.M.S. *Rattlesnake*, in *New Guinea*.
361. CARVED CANOE. *Papua*.
362. DRUM, covered with snake-skin. *Papua*.
363. LIME SPOON. Very fine,  $17\frac{1}{2}$  inches long. *Papua*.
364. LIME SPOON. " " "
365. BANJO. *Navarino*.
366. POWDER FLASK. Same as 359, but without shot bags. *Africa*.
367. SHIELD, containing various ethnological specimens.

1. Native Basket. *New Hebrides*.

2. Boomerang. *Australia*. It consists simply of a peculiarly curved piece of flat wood which when thrown any distance has the singular property of returning to the same spot from which it started. It is used for sporting purposes by the natives, its eccentric gyrations producing great havoc among the flocks of wild birds.

3. Boomerang. *Australia*.

4. Waddy, or throwing stick. *Australia*. Used principally for throwing at rabbits, at which the natives are very expert.

5. Club or mallet for beating out native cloth. *Erromanga, New Hebrides*.

6. Poisoned Arrows in sheath. *Mallicolo Island, New Hebrides*.

7. Arrows in sheath. *Erromanga, New Hebrides*.

8, 9. Fork and spoon. *Solomon Isles*.

10. Piece of flat cane.

11. Implement consisting of flint flakes inserted in wood with pitch. Used by the Aborigines of Australia.

12. Devil Boat. A model of a curiously carved and ornamented vessel used in religious ceremonies at Mallicolo Island, New Hebrides.

13. Stone Adze, fastened with string to a wooden handle, shows the manner in which the stone is attached by the natives to the handle; this came from the South Seas (Kealakeakua Bay, the spot where Captain Cook was killed).

14. Harpoon. Bone. *Terra del Fuego*.

15, 16, 17. Harpoons. Small. *Terra del Fuego*.

18. Stamp for marking Tappa. *Fiji*.

19. Necklace. Composed of braids of human hair cut from the heads of enemies killed in battle by King Kamehameha I. From these braids is suspended a hook carved out of a whale's tooth called



a Paloola. A drawing and full description of this rare necklace is given on p. 283 of 'A Voyage in the *Sunbeam*,' by Lady Brassey.

368. PHOTOGRAPH OF THE KING OF SIAM, KING CHULALONKOAN.  
Presented to Lady Brassey.

369. PHOTOGRAPH OF KING OF SIAM AND FAMILY.

370. CEDAR. *Bermuda*.

371, 372. TRIDACNA GIGANTEA OR GIGAS. *Pacific Seas*.

This monstrous bivalve was sent to Lady Brassey by Captain Bridge of H.M.S. *Espiègle*, from Australia. It measures 2 feet 10 inches in width by 1 foot 10 inches in length, and weighs 286 lbs. These large bivalves are often used as *benitiers*, or fonts for holding holy water. A very noted pair are those in the Church of St. Sulpice in Paris.

373. HALBERD OR PIKE, with handle inlaid with mother o' pearl.  
*Japan*.

374. CANOE ORNAMENT, used also as an idol. *Alu Islands*,  
*Shortland Group*, *Solomon Isles*.

375. SHIELD, containing various ethnographical specimens.

1. Native Flutes. *Nodup*, *Northern New Britain*. Instruments made of cane engraved or burnt in with a pattern.

2. Armlet, a piece of armour worn above the shoulder by a Fijian warrior.

3. Girdle made of shells, the complete costume of a native woman. *Fiji*.

4. Fijian neck ornament, boar's tusk.

5. Mummified or monumental head of a woman, from the south coast of the Island of Mallicolo, New Hebrides. The skull has a peculiar formation caused by pressure at an early age. Shortly after a child is born, the mother binds the forehead with sinnet from the eyebrows until the hair is reached, the string passing round the back of the head, and it is only taken off occasionally until the child is six months or even a year old. This artificial deformation, in the main symmetrical, is one of the commonest among the ancient South American crania. This woman is supposed to have been put to death, according to native custom, for having given birth to two daughters. These skulls are extremely rare, and are exhaustively treated in a paper by Professor Flower, F.R.S., &c., in the *Journal of the Anthropological Institute*, vol. ii., p. 75.

6. Tattooing needle. *Fiji*.

7. Native Hammer. *West Australia*. This type is peculiar to the

natives of Australia. It consists of an adze held by a wythe of wood, and cemented with native pitch.

8. Native Comb. *Ugi, Solomon Islands.*

9. Stone Adze, used by the party of natives when Captain Cook was attacked on the Island of Erromanga, New Hebrides, 1774. (A native now alive at Dillon Bay remembers hearing of this from his father.

10. Cocoanut Scrapers of shell. *Ugi, Solomon Islands.*

11. Stick, for beating the paper mulberry bark in the manufacture of "Tappa." *Fiji.*

12. Ear ornaments. *Tesemboko, Guadalcanar, Solomon Islands.*

13. Necklet worn by men. *Nodup, Northern New Britain.*

14. Castanets used in dancing. *Ugi, Solomon Islands.*

15. Club or tappa stick used for beating out native cloth. *Erromanga, New Hebrides.*

16. New Guinea money.

17. Arrows. *Erromanga, New Hebrides.*

18. Bone fish-hook. *Ugi, Solomon Islands.*

19. Ear ornament made of teeth. *Mesko, Duke of York Island.*

20. Neck ornament of Wild Boar's Tusk.

21. Girdle or complete Lady's Dress. *Island of Rotumate.*

376. WOODEN BOTTLE. *Miknor, Caroline Islands.* For use in canoes.

377. HEADDRESS OF FEATHERS. *Line Islands, South Pacific.*

378. PADDLE. *South Sea Islands.* Very beautifully carved.

This paddle, formerly in the celebrated "Whitfield" Collection, is said to have been taken from the savage who killed Captain Cook.

379. SILVER AMULETS. *Trinidad.* Worn by coolies. A description of the coolie jewellery is given in Lady Brassey's last book, 'In the Trades, the Tropics, and the Roaring Forties,' pp. 115, 165.

380. ROSARIES OF GREEN AND WHITE BEADS WITH MOTHER-OF-PEARL. *Church of the Holy Sepulchre.*

381. SPOON OR BOWL. *Galapagos Islands.* Tortoise-shell.

382. TAPPA MALLET. *Fiji.*

383. BATH CLOG. *Turkish.* Inlaid with mother-of-pearl.

384. GROUP OF GORGONIA UMBELLA, *Mauritius,* WITH DISTICHOPORA. *Australia.*



385. GROUP OF GORGONIA, *Mauritius*, WITH STYLASTER SANGUINEA. *Australia*.
386. SMALL GOURDS. *Fiji*.
387. DRUM STICK, used for beating the "*lali*," or native drum, to summon savages to a cannibal feast. *Fiji*.
388. YACHT "SUNBEAM." Oil-Painting by Ricketts.

The following is a short account of the yacht and its ever-memorable voyage round the world :—

"The *Sunbeam* was designed by Mr. St. Clare Byrne, of Liverpool, and may be technically described as a composite three-masted topsail-yard screw schooner. The engines, by Messrs. Laird, are of 70 nominal or 350 indicated horse-power, and developed a speed of 10·13 knots on the measured mile. The bunkers contain 80 tons of coal. The average daily consumption is 4 tons, and the speed 8 knots in fine weather. The principal dimensions of the hull are :—Length for tonnage, 157 feet; beam, extreme, 27 feet 6 inches; displacement tonnage, 531 tons; area of midship section, 202 square feet.

"On the 6th July, 1876, the *Sunbeam* sailed from Cowes on her voyage round the world. Calling at Madeira, Teneriffe, and the Cape Verde, the line was crossed on August 8th, and Rio Janeiro, a distance of 2500 miles, was reached on August 17th. Following the coasts of South America, visiting Montevideo and Buenos Ayres, and steaming through the Straits of Magellan, she cast anchor at Valparaiso on the 21st of October. From thence a transit of 12,330 miles across the Pacific, touching at several islands, led to Yokohama in Japan. From Japan the route continued homewards, by Hong-kong and Singapore, Ceylon, the Suez Canal, and the Mediterranean; and after a voyage of 35,375 miles the *Sunbeam* cast anchor once more at Cowes on the 27th May, 1877. Of the total distance 15,000 knots were run under steam, the best runs being—under sail, 299 knots; and under steam, 230 knots."

The last voyage of the yacht was to the West India Islands and Bermuda, a graphic and interesting description of which is contained in Lady Brassey's last work: 'In the Trades, the Tropics, and the Roaring Forties.'

389. SERIES OF TWENTY-FOUR ORIGINAL DRAWINGS. By G. de Martino, illustrating Sir Thomas Brassey's work, 'The British Navy: Its Strength, Resources, and Administration.'

- |                  |                                     |
|------------------|-------------------------------------|
| 1. Nelson.       | 13. City of Rome.                   |
| 2. Iron Duke.    | 14. Servia.                         |
| 3. Hercules.     | 15. Amiral Duperré, <i>France</i> . |
| 4. Alexandra.    | 16. Dévastation, <i>France</i> .    |
| 5. Agincourt.    | 17. Tonnerre, <i>France</i> .       |
| 6. Bellerophon.  | 18. Kaiser, <i>German</i> .         |
| 7. Téméraire.    | 19. Preussen, <i>German</i> .       |
| 8. Inflexible.   | 20. Sachsen, <i>German</i> .        |
| 9. Cyclops.      | 21. Italia, <i>Italian</i> .        |
| 10. Glatton.     | 22. Duilio, <i>Italian</i> .        |
| 11. Collingwood. | 23. Helgoland, <i>Danish</i> .      |
| 12. Belle Isle.  | 24. Custozza, <i>Austrian</i> .     |

390. MODELS, greatly enlarged, of Foraminifera.

- Stylodictya multispina, Haeckel, Messina.  
 Hellosphaera inermis, Messina.  
 Podocyrthis Schombergii, Ehrenberg.  
 Amphilenche Messanensis, Haeckel, Messina.  
 Actinomma inermis, Haeckel, Messina.  
 Diploconus fascies, Haeckel, Messina.

391. BOTTLES containing gulf weed. *Sargassum*. *Between La Guayra and Jamaica*. A detailed account of the Sargasso weed will be found in Lady Brassey's new book, 'In the Trades, the Tropics, and the Roaring Forties,' p. 365.

392. GULF WEED. *Sargassum*. Brought up with the log at sea, November 23rd, 1883. This consists of one or two varieties, principally *Sargassum vulgare*. The specimens are very rich in the round air-cells or floats peculiar to the genus, and are covered with several varieties of delicate corallines (*flustra*) and small worm shells (*serpula*).

393. SARGASSUM. Do.

394. SARGASSUM. *La Guayra*.

395. SARGASSUM. *Cape Hatteras*.

396. HERMIT CRAB, commonly called the Soldier Crab.  
 (*Pagurus*.) *Tahiti*.

397. JAPANESE CARP. *Japan*.

398. JAPANESE CARP. *Japan*.

399. HYDROPHIS. *South Seas*. Water snake.



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400. HYDROPHIS (VAR). *South Seas.*
401. SCOLOPENDRA GIGAS AND LIZARD. *South Seas.*
402. CHÆTODON. *China.*
403. RARE ADZE of bone in a wooden handle. *South Seas.*
404. KAHILIS, or long black plumes of feathers used on State occasions, also at burials, to accompany personages of distinction. *Honolulu.* They are described in Chapter XVII. of 'A Voyage in the *Surbeam.*'
405. SHIELD, containing ethnological specimens from various localities.
1. Fan made of reeds. *Tonga, Fiji.*
  2. Waist belt made of shells. *Fiji.*
  3. Bracelets made from the lower portion of the shell of *Trochus*. *Fiji.*
  4. Do. do.
  5. Ornaments painted to decorate the bow and stern of canoe. *Alu Islands (Shortland Group), Solomon Isles.*
  6. Necklace made of beads. *Vila Harbour, New Hebrides.*
  7. Wooden bracelet. A guard worn to protect the left wrist from the bowstring. *Saltousa Bay, Mallicolo, New Hebrides.*
  8. Necklace, used also as a girdle, *New Guinea*, made of the *Ovulum ovum*, commonly called the "Poached Egg." These shells are closely allied to the Cowries, and are largely used by the Papuans for decorating the body.
  9. Necklace of whales' teeth. Brought by the survivors of the disastrous expedition to Behring's Straits in 1871 and 1873 to Honolulu, and given to Lady Brassey by the King of the Hawaiian Archipelago.
  10. Castanet made of horn, used in dancing by the Solomon Islanders.
  11. Charms of bone.
  12. Charms made of bones. *New Guinea.* Used by the Papuans to keep away evil spirits. Brought by H.M.S. *Rattlesnake.*
  13. Sling from the Caroline Islands.
  14. Mask with web of native spider. This has some sad associations, having formerly been drawn over the head of the widow of a deceased chief previous to her being strangled at his burial. It is needless to say that, now the Fijian Isles have passed under the British rule, the custom is abolished.
  15. Split cane used for making baskets.

406. PIPE MADE OF BAMBOO AND BONE. *China.* For opium.  
 407. GROUP OF SPEARS. *Chinese.*  
 408. BOW AND ARROWS. *Japanese.*  
 409. SPEAR. *Admiralty Islands.*

The point is made of Obsidian or volcanic glass. No mineral could be better adapted for spear heads than this, possessing a decided fracture, and yielding flakes which in point of sharpness can only be compared to a razor.

410. ALPINE STOCK used by Lady Brassey in 1859.  
 411. RARE PADDLE. *New Guinea.*

This shape is peculiar to the Papuans. The blades, pointed at each end, are extended to the centre, leaving only a very small space for the hands.

- 412, 413. LONG SPEARS tipped with human bones, split into thin sharp needle-like points, which are sometimes poisoned.  
*From Tesemboko, Guadalcanar, Solomon Islands.*  
 414. ASSEGAI OR IRON-POINTED SPEAR. *South Africa.* Brought from the battle-field of Isandhlana.  
 415. CARVED CLUB. *New Guinea.* Used also as a paddle by the Papuans.  
 416. FISHING SPEAR. *South Sea Islands.*  
 417. CLUB IN BLACKWOOD. *Solomon Islands.* Used also as a paddle.  
 418. CLUB WITH ORNAMENTED HEAD. *Fiji.*  
 419. SPEAR TIPPED WITH BONE. *New Guinea.*  
 420. LONG SPEAR. *Mikienare, Gilbert Islands.*

These spears are most formidable weapons, being armed with sharks' teeth, which are most scientifically attached to the lance. Against the naked body they must indeed be terrible weapons.

421. SPEAR used by the Papuans. *New Guinea.*  
 422. BOW. *Japanese.*  
 423. SPEARS used by the Papuans. *New Guinea.*  
 424. SERIES OF ARROWS used by the Solomon Islanders.  
 425. CLUB, of a very rare shape. *Tonga-Tabu.*



426. MUSICAL INSTRUMENT. *Tangier*.
427. ARROW HEAD. *Papuan*.
428. SHIELD, containing various savage implements and weapons.
1. Basket made by the natives of Mallicolo, *New Hebrides*.
  2. Armlet of beads, worn by the Sandwich Islanders.
  3. Woman's head dress made of human hair. *Fiji*. Among the Fijians it is called "Sutu."
  4. Bag of network. *Solomon Islands*. It is used for carrying Areca nut.
  5. Mask extremely rare from the Mallicolo Islands. *New Hebrides*.
  6. Bag or hanging-pocket used by the natives of *Ugi, Solomon Islands*.
  7. Native knives. *Australia*. These are extremely interesting, the type being only known in Australia. They consist of handles of wood at the end of which are pieces of flint, sometimes volcanic glass, which are inserted primarily into a groove, and then cemented with a native pitch.
  8. Gourd for holding chunam (lime), used in chewing betel. *Ugi, Solomon Isles*.
  9. Variety of primitive spade used for general agricultural purposes by the Fijians.
  10. Box or case for carrying chunam or lime. *Ugi, Solomon Isles*.
  11. Necklace of native beads. *Vila Harbour, Sandwich, New Hebrides*.
  12. Comb, used by the natives of Erromanga.
  13. Spider's web, said to be used to put over the head of a chief's widow before strangling her at his funeral.
  14. Necklace of snake bones. *Fiji*.
  15. Stone celt or axe. *Ugi, Solomon Islands*.
  16. Armlets, cut from the giant clam *Tridacna gigantea* (see No. 165), *Malayta Islands, Solomon Islands*.
  17. Man's dress of vegetable fibre. *Fiji*.
429. PORTRAIT OF THE KING AND QUEEN OF SIAM. King Chulalongkoan and his wife.
430. WATER COLOUR DRAWING OF H.M.S. PYLADES. Screw sloop of 14 guns, 1,000 horse power, named and launched at Sheerness yard, 5th of November, 1884, by Mrs. Codrington.
431. CLOGS. *Turkish*. Olive wood, inlaid with a geometrical

pattern in mother-of-pearl, with gold embroidered leather strap.

432. BOW. *South Seas.*

433. KAHILIS. See No. 404. *Honolulu.*

434. MODERN ARCHERY ARROWS.

435. ROYAL ROBE OF JAPANESE SILK. Mounted with black velvet. Presented to Lady Brassey by the Mikado of Japan.

436. SPEAR. *Admiralty Isles.*

This is exceedingly rare. The head of the spear is ornamanted with flakes of obsidian.

437. BOW. *Fiji.* Split cane is used instead of string.

438. SPEAR, used by the Solomon Islanders.

439. SANDAL AND WOODEN CLOG WITH SOCK. *Japanese.*







## UPPER END OF ROOM—WEST SIDE.

440.



MODEL OF CHINESE WAR JUNK. Length 3 ft. 4 in. It is three-masted, and has the guns mounted *en barbette* at the sides.

An amusing incident illustrative of many remarks made by the uninitiated, and showing also the desideratum of an explanatory handbook, may be related of a fair visitor to the Fisheries Exhibition upon the opening day, who was overheard informing her less learned companions that this war junk was a model of the *Sunbeam*?

441. AMPHORA OR WINE JAR. Excavated by Dr. Richter at Cyprus.

442. BOAT, made solely of sandstone. *Bermudas*. This remarkable boat, which is made entirely of stone, floats without difficulty.

See Lady Brassey's last book, 'In the Trades, the Tropics, and the Roaring Forties,' p. 434.

443. AMPHORÆ OF VARIOUS TYPES. *Island of Cyprus*.

444. GLASS CASE. Containing a most beautiful series of humming birds. (*Trochilidæ*.)

445. SHIELD. Embossed leather, painted and gilt. This shield formed the ornament decorating the stern of the state galley of the last Doge of Venice. In the centre is the winged Lion of St. Mark, rampant, richly gilt and in very high relief, on a blue ground, holding an escutcheon

with the arms of Venice. The border a chain of ivy leaves with masques and armour at intervals, all in relief, coloured and gilt. The whole surmounted by two fabulous figures couchant: between them the cap of the Venetian doge. Height, 6 ft. 6 in.; breadth, 3 ft. 8 in. Date, close of 18th century.

The ceremony of the espousal of the Adriatic by the Doge of Venice took place annually with great pomp, and was intended as an assertion of the right of the republic to the dominion of that sea, and existed for nearly eight hundred years. The state galley used, the celebrated "Bucentoro," by the last Doge of Venice, Ludovico Manin, was stripped of its ornaments by the revolutionists at the close of the last century, and after having successively served as a gunboat and a prison was burned in 1824. The shield above described belonged to this galley. The fall of the republic of Venice took place in the year 1796.

446. MODEL OF BERMUDAN RACING YACHT. Cedar wood.

447. ORIGINAL DRAWINGS. By R. T. Pritchett, Esq., illustrating Lady Brassey's new book, 'In the Trades, the Tropics, and the Roaring Forties.'

The skilful and delicate manner in which these drawings are rendered indicate the masterly touch of the artist as well as the appreciative grasp of a true eye to the beauties of Nature. Mr. Pritchett's large experience in the South Seas has been naturally of the greatest assistance, and brought into full play. The sketches, often prepared, as Lady Brassey remarks in the preface to her book, "under circumstances of haste and difficulty," are for truthfulness and beauty beyond all praise.

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scene, temple, and figures ; the remainder of the head is constructed of peacock-feathers.

449. MODEL of a very elegant river or family boat. *Canton.*

450. MODEL IN WOOD of a Chinese boat, painted. Length 2 ft. 9 inches.

451. MODEL OF RACING YACHT. *Bahamas.*

For description, see 'The Trades, the Tropics, and the Roaring Forties,' p. 441.





## NORTH SIDE.

### OBJECTS UPON THE WALL.

452.



ROAD GRASS GIRDLE. *South Sea Islands.*

453. STONE AXE IN HAFT. *New Guinea.*

This axe is made of a variety of a very close-grained quartz, and is bound in the haft by native cane. It is used in warfare, also as a processional axe. Brought by Dr. Comrie, of H.M.S. *Rattlesnake*, from one of the early exploratory expeditions to Papua.

454. STONE AXE. Similar to 453.

455. MUSICAL INSTRUMENT. *Navarino.*

456. LANCE ORNAMENTED WITH SHARKS' TEETH. *Marquesas Islands.*

This is a most formidable weapon in savage warfare; the serrated edges of the sharks' teeth inflicting terrible wounds upon the naked body.

457. LANCE. *Solomon Islands.*

This beautifully carved lance or spear-head is a good example of the artistic skill of the Solomon Islanders.

458. LANCE. *New Guinea.* Tipped with a human bone, presumably the fibula, the splinter bone of the leg.

459. LANCE. *New Britain.* Decorated with feathers of various birds.

460. LANCE. *Solomon Islands.* Beautifully carved and ornamented with chunam or lime.



461. LANCE OR SPEAR-HEAD. *Admiralty Isles.*

This is tipped with obsidian or volcanic glass, the recently fractured edge of which is as sharp as a razor. This specimen was procured by the late Prof. Sir Wyville Thomson, F.R.S., during the ever-memorable scientific cruise of H.M.S. *Challenger*.

462. SPEAR DECORATED WITH SHARKS' TEETH. *Gilbert Isles.*463. STONE CELT OR AXE IN HAFT. *New Guinea.*

This type is in general use by the Papuans.

464. STONE CELT OR AXE IN HANDLE. *New Guinea.*465. LANCE OR SPEAR. *Papuan.*466. YAM GRATER. *Ugi, Solomon Islands.*

Yam is a variety of sweet potatoe. A common article of diet among the natives.

467. STAFF used principally for processional purposes. *Fiji.*

## 468. SHIELD containing ethnological specimens.

1. Large club or casse tête. *Samoa or Navigator Islands.*

2. Implement or native spade in bone, used for agricultural purposes. *Fiji.*

3. Pillow or head-rest. *Fiji.*

4. Woomera or throwing stick. This stick is used to project and give an impetus to the long lances thrown by the aborigines of Australia.

5. Spoon. *Fiji.*

6. Club or mace. *Samoa Islands.*

7. Two rings carved out of a polished gourd.

8. Armlet of whales' teeth.

9. Cocoa nut used as a drinking bowl.

10. Gourd, beautifully carved. *Raita, Solomon Isles.*

11. „ plain.

12. Root used for medicinal purposes. Rhizome of *Macropiper Methysticum*. The root from which the drink called "kava" is prepared. The *Macropiper Methysticum* is a climbing or trailing plant nearly allied to our pepper vine (*Piper Nigrum*), and also to betle pepper (*Piper Betle*). Of these peppers sometimes the root, sometimes the leaves, or the fruit, is used. They all appear to possess, more or less, narcotic or intoxicating qualities. *South Seas.*

13. Club or mace. *Samoa.*

14. Betel-spoon or lime. *Solomon Isles.*

15. Native Root.

16. Adze of greenstone. This type is generally hafted.

469. BAMBOO SPEAR. *New Caledonia.*  
 470. CLUB of rare type. *Samoa or Navigator Islands.*  
 471. CLUB used also as a paddle, made of *Lignum Vitæ.*  
*Solomon Islands.*  
 472. CLUB used also as a paddle. *Ugi, Solomon Islands.*  
 473. PADDLE. *Mallicolo Islands, New Hebrides.*

This type is very scarce.

474. CLUB WITH STELLATE HEAD. *Tonga Island.*  
 475. CLUB. *New Ireland.*

It tapers to a sharp point. A circlet of stone surrounds the club two inches below the blunted extremity. It is used for digging yams, as well as a club in warfare.

476. PADDLE. *Solomon Islands.*

This a very fine long paddle.

477. A similar paddle. *From Ugi.*  
 478. DRUM, ornamented and carved. The membrane is made of snake's skin. *New Guinea.*

Brought by Dr. Comrie, of H.M.S. *Rattlesnake.*

479. Ditto, slightly different in shape. *Papuan.*  
 480. ZULU SHIELD WITH SPEAR. *Kambula, S. Africa.*

Major Dudley Persse writes:—"I took it the morning after Kambula. A Zulu chief, six feet four inches in height, as fine a looking man as I ever saw, was lying dead on it with his face towards us, his arms folded and legs crossed, and no end of Martini empty cartridge-cases by his side, but no Martini rifle, only an old Tower musket which some other Zulus had changed for the Martini when they found their chief was useless."

481. A similar implement to 475. *New Ireland.*  
 482. A similar implement to 475. *New Ireland.*  
 483. PADDLE. *Ugi, Solomon Islands.*  
 484. PADDLE. *Shortland Group, Solomon Islands.*  
 485. PADDLE. *New Zealand.* Carved and ornamented with *Haliotis* Shell by the Moaries.

The pattern is typical of New Zealand carving.



486. STEERING PADDLE. *Samoa or Navigator Islands.*  
487. CLUB with circles of stones near the top, and ornamented with feathers. *Papua.*  
488. Similar club. The type is very rare.  
489. FRAME, containing souvenirs of the siege of Paris, 1870 ; pieces of cartridges, shells, etc.  
490. DOUBLE CANOE. *Hawaiian Islands.*

This singular canoe consists of two boats reverted end to end with triangular sails, being intended to sail either way. It was presented to Lady Brassey at Hawaii by the Princess Ruth, Governess of Hawaii.

491. MODEL OF SURF BOAT. *Formosa.*

This boat with lateen sail amply conveys an idea of the way in which passengers are landed through the breakers in tropical countries. The passenger sits protected from the surf, to which the crew (totally unclothed) are exposed, the sea rushing over the open ends of the raft. The hull of the model is made of hollow bamboos, the sail out of a mat. This surf boat came from Formosa, and was sent to Lady Brassey by Captain R. H. Paul, R.N., of H.M.S. *Mosquito*.

492. CELT IN HAFT. *Barbadoes.*

The celt or axe is made of shell cut from the hinge of the *Tridacna* or Giant Clam.

493. HAT CUT OUT OF WOOD. *Pelew Islands.*

494. LALI OR DRUM. *Fiji.*

Used as a dinner gong to summon the savages to cannibal feasts. It was suspended and struck with sticks.

495. MODEL OF FUEGIAN CANOE *Terra del Fuego*. Made of Bark.

The Patagonians and Fuegians, races inhabiting the extreme south of South America, are perhaps amongst the most uncivilised and the lowest in the scale of human beings. The former inhabit, or rather roam over, a vast tract of country, hunting by means of the *bolas*, which they throw with unerring precision. Although the climate is rigorous, they have no houses, scarcely even huts, their only shelter consisting of tents made of skins stretched across a few poles. A single mantle of skins forms the only garment both of men and women. Their bodies, especially of the women, are daubed with paint and grease, their complexions copper-coloured, and their hair black, long, and coarse.



The Fuegians, or *Canoe Indians*, so called from their living so much on the water, are a smaller race than the Patagonians, and even lower specimens of humanity. They are cannibals, but their food consists mainly of shell-fish, sea-eggs, and fish. Most of them are quite naked, though they sometimes wear a kind of deer-skin mantle descending to the waist. Darwin, in the '*Cruise of the Beagle*,' says:—

"The Fuegian wigwam resembles, in size and dimensions, a haystack. It consists of a few broken branches stuck in the ground, and very imperfectly thatched on one side with a few tufts of grass and rushes. The whole cannot be the work of an hour, and it is only used for a few days. At Goeree roads I saw a place where one of these naked men slept, which absolutely offered no more shelter than the form of a hare. . . . While going one day on shore near Wollaston island, we pulled alongside a canoe containing six Fuegians. These were the most abject and miserable creatures I anywhere beheld. On the east coast the natives, as we have seen, have guanaco cloaks; on the west they possess sealskin. Amongst the central tribes the men generally have an otter-skin or some small scrap about as large as a pocket-handkerchief, which is barely sufficient to cover their backs as low down as their loins. It is laced across the breast by strings, and according as the wind blows it is shifted from side to side. But these Fuegians in the canoe were quite naked, and even one full-grown woman was absolutely so. It was raining heavily, and the fresh water, together with the spray, trickled down her body. In another harbour, not far distant, a woman, who was suckling a newborn child, came one day alongside the vessel, and remained there out of mere curiosity, whilst the sleet fell and thawed on her naked bosom, and on the skin of her naked baby. These poor wretches were stunted in their growth, their hideous faces bedaubed with white paint, their skins filthy and greasy, their hair entangled, their voices discordant, and their gestures violent. Viewing such men, one can hardly make oneself believe that they are fellow-creatures, and inhabitants of the same world. It is a common subject of conjecture what pleasure in life some of the less favoured animals can enjoy; how much more reasonably the same question may be asked with respect to these barbarians! At night, five or six human beings, naked and scarcely protected from the wind and rain of this tempestuous climate, sleep on the wet ground, coiled up like animals. Whenever it is low water, winter or summer, night or day, they must rise to pick up shell-fish from the rocks, and the women either dive to collect sea-eggs, or sit waiting in their canoes, or with a baited hairline, without any hook, jerk out little fish. If a seal is killed, or the floating carcase of a putrid whale discovered, it is a feast, and such miserable food is assisted by a few tasteless berries and fungi. They often suffer from famine."

Many objects from these wild and rarely visited regions, including



a model of a canoe, rough pots of bark and raw hide, bows and arrows, *bolas*, and fish hooks will be found in the collection, and a most interesting account of a late visit is given in Lady Brassey's 'Voyage of the *Sunbeam*.'

496. MODEL OF AN OUTRIGGERED SURF-BOAT, called a Catamaran. *Cingalese*.

497. TWO MODELS OF SMALL SURF-BOATS. *Ceylon*.

498. NECKLACE, made of woman's hair. *Gilbert Islands*.

499. CLUB, used by the Papuans. *New Guinea*.

500. IMPLEMENT, ornamented with sharks' teeth. *Gilbert Isles*.

These are also used in the Marquesas, and are most terrible weapons for lacerating the naked body.

501. IDOL, called by the savages Se-Tu. *Miknor, Caroline Islands*.

502. CROSS. *Pere la Chaise*. Souvenir of the Franco-German war. The carved crucifix is mounted upon a bullet and a fragment of a shell.

- 503-504. ELEPHANTS, PAIR OF. *Cingalese*. Ebony and ivory.

505. HOOK of mizen-peak of haul-yard block of the yacht *Sunbeam* after her voyage round the world. 1876-77.

506. EYE of ditto.

508. CHESS AND BACKGAMMON BOARD. Made exclusively of Bermuda cedar wood, comprising 2070 pieces of seven different colours. Manufactured by Mr. John H. T. Jackson, cabinet-maker, Hamilton, Bermuda, for the Centennial Exhibition, Philadelphia, 1876.

The squares, dark, are of the birds'-eye.

The squares, light, are of the plain.

The division lines and all of the same colour, are of the white or sap.

The purple margin around the squares is from the south side of the tree, or that on which the sun shines, grown on high land.

The wood in the inner margin is of the root of the tree.

That of the outer margin is of the crotch.

The other ornamental woods are made up of all the different shades of cedar.

The back is of the root.

The other parts of the frame are of plain cedar.

The backgammon is also of the plain.

The men are composed of birds'-eye, dark and white or sap, and are hexagonal in form.

509. MODEL OF THE BRASSEY APSE. *Chester Cathedral.*

This model, made by Sir Gilbert Scott, was presented to Sir Thomas Brassey by the Dean and Chapter of Chester Cathedral.

In the course of the restoration of Chester Cathedral, which was in progress from 1868 to 1876, a very remarkable discovery was made on the south side of the choir. The aisle on this side was in such a dilapidated condition that it became necessary to pull it down in order to reconstruct it. By a curious chain of evidence it was then proved that this south aisle had terminated in an extraordinary cone, which had been destroyed or had fallen down four hundred years ago, when the aisle was prolonged eastward in a bad style of architecture.

It was determined to restore what had thus disappeared; and the result is internally a beautiful apsidal termination, such as was seen here in the reign of King Edward I. It ought to be added that at this point the Cathedral walls were under-pinned to a depth of thirteen feet, so as to connect the structure with the native rock.

It is this eastern part of the south aisle of the choir which Sir Thomas Brassey and his brothers have adopted as a memorial of their father and mother, having defrayed the cost of the whole from the rock to the summit of the cone, and having placed within it rich decorations. These decorations consist of coloured windows by Messrs. Clayton & Bell, and of mosaics below by the same artists, in memory of the late Mrs. Brassey, and representing female characters from the Bible. A fine bust of the late T. Brassey, Esq., is placed on the north sides of the apse.

510. TUSKS OF THE NARWHAL, OR SEA UNICORN. *Northern Seas.*

511. CASE, containing specimens of iron ore and materials used in the manufacture of Bessemer rails. Presented to Lady Brassey by Messrs. Bolekow, Vaughan and Co., of Middlesborough, September, 1881.

a. Basic brick.	i. Hæmatite iron.
b. Cumberland ore.	j. No. 1 Cleveland iron.
c. Red Bilbao ore.	k. Spiegel.
d. Brown Bilbao ore.	l. Small flange rail.
e. Cleveland calcined stone.	m. Large flange rail.
f. Cleveland iron stone.	n. Double-headed rail.
g. Limestone.	o. Bull-headed rail.
h. Coke.	



512. COLLECTION OF WOODS, illustrating the growth and produce of Canada.

- Iron wood. *Ostrya Virginica*.  
 Butternut. *Juglans cinerea*.  
 Mountain Ash. *Pyrus Americana*.  
 Common Aspen Poplar. *Populus tremuloides*.  
 Red Pine. *Pinus resinosa*.  
 Red or Slippery Elm. *Ulmus fulva vel Rubra*.  
 Black Willow. *Salix nigra*.  
 Rough Bark Hickory. *Carya alba*.  
 Black Birch. *Betula lenta vel nigra*.  
 Black Walnut. *Juglans nigra*.  
 Grey or White Elm. *Ulmus Americana*.  
 Yellow Pine. *Pinus mitis*.  
 Red Wild Cherry. *Cerasus Pennsylvanica*.  
 Red Cedar. *Juniperus Virginiana*.  
 White Cedar. *Thuja Occidentalis*.  
 White Wood. *Liriodendron tulipifera*.  
 Black Walnut. *Juglans nigra*.  
 Basswood. *Titia Americana*.  
 Red or Black Oak. *Quercus rubra*.  
 Rock Elm. *Ulmus dura*.  
 Soft Maple. (Plane.) *Acer Dasycarpum*.  
 Tamarac. *Larix Americana*.  
 Black or Swamp Ash. *Fraxinus Sambucifolia*.  
 Curly Birch. *Betula excelsa*.  
 White Oak. *Quercus alba*.  
 Bird's-eye Maple. *Acer spicatum*.  
 Button Wood or Sycamore. *Platanus Occidentalis*.  
 Balsam Fir. *Abies balsamla*.  
 White Birch. *Betula papyracea*.  
 Hemlock. *Abus Canadensis*.  
 White Ash. *Fraxinus Americana*.  
 Black Walnut. *Juglans nigra*.

513. PLAQUE with view of H.M.S. *Devastation*. After de Martino.

513A. PLAQUE. View of Gravesend. After de Martino.

514. AMPHORA OR WINE JAR. *Isle of Cyprus*.

515. AMPHORA OR WINE JAR. *Isle of Cyprus*.

516. PAIR OF WOOL CARDERS. *Shetland*.

The following interesting account of the Shetlander and the Shetland Islands is from notes made by Lady Brassey during a tour in 1881.

The Shetlander depends mainly for his livelihood on the harvest of the sea; for, however industrious he may be, he cannot expect to grow rich on the produce of the soil of his native land. The long winter nights, the want of sun, the fogs and mists that so frequently prevail, make it impossible for ordinary crops to arrive at anything like a satisfactory state of maturity. There is hardly a tree on the islands; wheat will not ripen; oats and barley look quite green in September. On the other hand, turnips do well, and are used as food for the sheep, which, if not exactly a source of wealth, at all events adds something to the income of the farmer, besides providing occupation for the women, who each and all seem to be always knitting. Whether gossiping on the quay with the fishermen, or on their way home from the work of cleaning and packing herrings, or bent double beneath the weight of a basket of peat, brought from the distant moors, their fingers are ever diligently yet mechanically employed with their knitting needles.

The sheep are of three different kinds:—the mourat or brown-coloured, which is by far the most valuable, the sheilah, whose wool varies in colour from light to blackish grey, which rank next in value, and finally the pure white and black breeds. Of the latter a specimen is to be seen tethered on the grass-plot in front of every small house, where he seems to take the place of flowers and flower-beds, which are not very numerous in Shetland, except in one or two well-sheltered and cared-for gardens.

The very finest wool is plucked from under the neck of a living sheep. Some of it is plucked—not cut—from the skin of a dead sheep; but of course the greater portion is just shorn off in the ordinary way. It is then combed, washed, teased, oiled, carded, spun, whirled, hanked, washed again, and then knitted, either into ordinary coarse goods, or into those long cobwebby-looking white shawls, veils, &c., which are so much admired. These have once more to be washed, and are then pinned out carefully on the grass, with numberless wooden pegs, to be bleached, before they are ready for the market.

It need scarcely be said that more Shetland goods are sold all over the kingdom than the island could possibly produce. There are two kinds of imitations. One consists of articles from Pyrenean, Scotch, and other wools, sent to Shetland to be knitted, which, though much lighter than the real thing, are well made and even stronger. The second and baser kind consists of goods made from foreign wool by machinery at Glasgow, Manchester, and elsewhere. The imitation is an excellent one, but, having been once taught the difference between it and the reality, the touch quickly detects the greater harshness, while the eye notes the too great regularity of the



stitches, which can only be attained by fingers of iron, and not by those of flesh and blood.

The best knitters live at Unst, the northernmost isle on the extreme promontory of which, called Muckle Flugga, stands the splendid lighthouse of North Unst, one of the most wonderful buildings of its kind in the world. It is here that the broad Atlantic first encounters a British obstacle on its way south, and mightily does it foam and rage and roar against it, sending fountains of spray high up into the air above the lighthouse during the terrible gales that so frequently prevail hereabouts. Who knows but that some of this same spray and foam, looking like lace upon the surface of the sea, may have suggested patterns to the busy knitters? A really fine Shetland shawl, which, though it may be two yards square, will go through a wedding-ring without being roughly pulled or crushed in any way, is just like sea foam, turned not into stone but into wool—fit covering for a mermaid, so light, fleecy, and blown-together is it in appearance.

At Fair Island the style and texture of the knitting is quite different, the material being thick and close, while the many-coloured pattern is always arranged in the form of squares, half-squares, or straight lines, never in a curve of any sort. The genuine goods are made from Fair Island wool, dyed by the islanders themselves with dyes made from seaweeds and herbs, such as madder, rag-wort, and others that grow in this desolate spot, where, not long ago, weeks and months used to pass without the visit of a single ship. It is said that the custom of dyeing the wool was first taught to the poor islanders by the survivors of the wreck of *El Gran Griffone*, the flag-ship of the Spanish Armada. Certain it is that nowhere else in the world are knitted goods of the same style and colour now made, while it is also a fact that in the Dulwich Gallery there is a picture by Murillo of a woman wearing a shawl of the orthodox Fair Isle pattern. A certain quantity of ready-dyed wool is now sent to Fair Island to be knitted by the inhabitants in their own peculiar fashion; but the bright new colours are not half so pretty, though much gayer than the old ones.

It was on the coast of Fair Island that a large German emigrant ship, the *Lessing* was wrecked, on the 22nd May, 1868. The shores of the island are indented by long narrow fiords, with high precipitous sides, which in many cases penetrate far inland till they at last become subterranean passages, terminating in openings in the ground above, called "blow-holes." Through these, in stormy weather, the sea is often forced with great violence, producing the strange effect of waves and spray tossed into the air almost in the midst of cultivated fields. Into one of these fiords the unfortunate *Lessing*, a large German emigrant ship, sailed during a dense fog. The conster-



nation of the poor emigrants when the vessel suddenly crashed upon the rocks may be imagined, while their astonishment and alarm, when the fog lifted, at discovering themselves hemmed in closely on all sides by steep and inaccessible rocks, in a narrow channel from which there was apparently no outlet, must have been very great. The attention of the inhabitants of the island was at last attracted, and the crew and passengers were all drawn up one by one through the blow-hole at the end of the fiord, the ship itself sinking shortly afterwards and remaining at the bottom of the sea for many months, at the end of which time she was successfully raised. Mr. John Williamson, of Kirkwall, on the occasion of the visit of the *Sunbeam* to that port, very kindly presented a few articles that had been recovered from the wreck of the *Lessing*, after two months' submersion: they may now be seen in the collection at Normanhurst.

517. SPINNING WHEEL. *Fair Island, Shetland Islands.*

518. SPINNING WHEEL. *Shetland Islands.*

519. SWAN IN SILVER. *Japanese.*

From its back spring a mast and sail, and its outstretched wings are freighted with boxes, chests and faus, and a variety of goods. The mast is in imitation of bamboo, the sail divided longitudinally, the divisions diapered in patterns, some being coloured, others gilt. In the centre of the sail is let in a detached crystal ball, within a medallion of chased scroll-work. Behind are a rudder and a tiller. and the bird floats on a conventional sea. Height, 16 inches. It was obtained at Kioto, Japan.

520. WOODEN BOWL OR DISH, inlaid with shell. *Kororar, Pelew Islands.*

521. WOODEN BOWL OR DISH, inlaid with shell. *Kororar, Pelew Islands.*

522. WOODEN DISH, boat-shaped. *Kororar, Pelew Islands.*

523. PRIMITIVE CANOE, OR PIROGUE. *From Maitea, South Sea Islands.* Made from the hollowed out trunk of a tree. It is 8 feet in length, and was actually used to convey some of the people from the shore to the *Sunbeam*, at Maitea.

524. CLUB. *Solomon Islands.*

525. CLUB. *Solomon Islands.*

526. CLUB, made out of Narwhal Ivory. *South Seas.* It is extremely rare.



527. BANJO. *West Coast of Africa.*
528. CALABASH, used for holding Chunam or Lime. *Solomon Islands.*
529. PAIR OF SHOES, made of cow hide, used in the Orkney Islands in the beginning of the 19th century. They are locally termed "Rivlings."
530. FISH HOOK, used by the natives of Fumati. *Ellice Islands.*
531. PAIR OF BOOMERANGS. *Australia.* For description of these interesting weapons, see No. 367. Shield, No. 2.
532. CALABASH, polished, made of the *Crescentia cujite*. *Trinidad.*
533. WOODEN DISH FOR FOOD. *Korror, Pelew Islands.*
534. DRUM OF THE PAPUANS, covered with snake skin. *New Guinea.* Collected by Dr. Comrie, of H.M.S. *Rattlesnake.*
535. A SIMILAR MUSICAL INSTRUMENT, from the same locality.
536. PADDLE, carved. Used by the Maoris or New Zealanders. The carving is typical of the Maoris.
537. BETEL OR CHUNAM (LIME) SPOONS. *New Guinea.* Very beautifully carved.
538. AXE STONE, with very fine wooden haft. *New Guinea.* These axes are used for processional purposes.
539. STEERING PADDLE, used also as a Club. *Solomon Islands.*
540. GIRDLES OF *Leis* FEATHERS.

*Leis* are necklaces of brilliant coloured feathers, much esteemed at Hawaii. The yellow, of *Oo*, and *Mamo* (local names) feathers, only found on this island, are always difficult to procure, because the use of them is a prerogative of royalty and nobility. *Mamo* feathers, it has been stated, are generally worth a dollar apiece, and a good *lei* is said to cost about five hundred dollars.

Very interesting are the old feather war-cloaks, which are made of thousands of yellow, red, and black feathers of the *Oo*, *Mamo*, and *Eine*, taken singly and fastened into a sort of network of string. The birds from which these feathers are obtained are found in the mountainous parts of the islands, and are caught by means of a kind of bird-lime smeared on poles, which are thickly scattered about their haunts. Each bird produces only a small quantity of these highly-prized feathers. See Royal Feather Cloak, No. 842.

541. ZULU SHIELD AND SPEAR. *Isandhlana, Africa.*
542. CALABASHES (Pair of). *Trinidad.*
543. PANDANUS FRUIT. *Ellice Islands, Greenwich Islands.*  
This fruit is packed, as may be seen by this specimen, in short thick rolls, for use during long canoe voyages.
544. CHILD'S BOAT, made of cork. This was picked up at sea, off the coast of Vigo, Spain.
545. CLUB. *Solomon Islands.*
546. PROCESSIONAL AXE, consisting of stone adze in peculiar wooden handle. *New Guinea.*
547. MAT WORN AS A SKIRT. *Milti Atoll, Marshall Islands.*
548. TUFT OF *Leis* FEATHERS. *Sandwich Islands.* For description of *Leis* Feathers, see No. 540.
549. CARVED CALABASH. *Trinidad.*
550. FISHING LINE. *Greenwich Islands.*
551. LINE MADE OUT OF SHELL. *South Seas.* Used for decorating the person.
552. STONE AXE IN HANDLE. *New Guinea.*
553. PAIR OF TOMAHAWKS, used by the Red Indians.
554. BOWL FOR FOOD. *Tesemboko, Guadalcanar, Solomon Islands.*
555. CAVA OR 'KAVA' BOWL, used for Angona, the native beer of the Polynesians. *Fiji.*

It is said that the small notches on this bowl show the number of generations during which it has belonged to the same family.

556. SHIELD, containing various ethnological specimens.

1. Native Whip. This black natural whip is simply a stem of the *Pterogorgia pinnata*, *Bahamas*. These are thin black rods, very pliable, like riding-whips. They are the centre core of a species of coral, the foundation (so to speak) of the cells or habitations built round or upon it by the coral animals or polypes. These cells, which are of a light colour, have all been scraped off, leaving only the central core, which is somewhat of the same texture as horn. In Ellis' "Natural History of Zoophytes" (1786), we find the following:—"It appears from the old botanical writers that the



several roots of black corals were formerly called by the name of *Antipathes* . . . they were not only used as sceptres for princes, but likewise for divining rods and other such purposes. It is clear from Salmasius' remarks to Solinus, wherein he says that *Antipathes* denotes something proper to resist incantations, and that they were used for that purpose by several Indian nations." *Antipathes* is still retained as a generic name of black corals.

2. Barbed Spear in Bone. *Terra del Fuego.*
  3. Swizzle sticks, used for preparing drinks. *West Indies.*
  4. Tappa Mallets. *Fiji.*
  5. Earthenware Cooking Pot. *Treasury Island, Solomon Islands.*
  6. Club. *Tonga.*
  7. Shuttle in Wood used for making nets. *South Seas.*
  8. Cocoa-nut Shell used as a bowl.
  9. Carved Bamboo. *New Guinea.*
  10. Earthenware Pot. *Malay.*
  11. Stone Pot. *Malay.*
  12. Club hafted. *South Seas.*
  13. Paddle. Rare type. *New Guinea.*
  14. Club. Rare. *Solomon Islands.*
  15. Ornament for Canoe or Idol. Carved wood. *South Seas.*
  16. Earthenware Pot. *Malay.*
  17. Cocoa-nut.
  18. Walking-stick.
557. ARROWS. *Solomon Islands.*
558. ROSTRUM OF SAW FISH (*Pristis antiquorum*). *South Africa.*
- This fish is hardly a true shark, although belonging to the cartilaginous fishes; it is of predacious habits, and is said even to attack whales like the sword-fish. It is found mostly in the warmer seas of the world, and is very generally distributed. The saw of this fish is a prolongation of the snout, and is used as a weapon of destruction among shoals of other fish, the animal striking with it right and left and causing terrible wounds with the prominent teeth with which the snout is armed.
559. SERIES OF SPOONS. *Malay.*
560. PROCESSIONAL AXE. *New Guinea.*
561. BOUGH OF THE OAK in which Charles II. hid in 1651.  
Presented to the late T. Brassey, Esq., by the Rev. G. Salt.
562. Box, made by the natives of Fumati. *Ellice Islands.*
563. CAP OF GRASS. *Fiji.*
564. FLYING FISH (*Exocetus volitans*). *Southern Seas.*

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The flying-fish is a species which is always regarded with special interest. This specimen flew on board the *Sunbeam*, striking Lady Brassey's throat, and became entangled in the lace of her dress, when cruising in the Southern Seas. This incident is mentioned on page 206 of 'A Voyage in the Sunbeam.'

565. STUFFED HEAD OF A FISH. *Anarrhichas lupus*, caught off Norway in 1874, which, when brought on board the *Sunbeam*, actually bit, in its death agonies, through the thick sea-boot of one of the crew.

566. GLASS CASE containing Eagles.

567. BOAT, made out of the Carapace of a Turtle. (*Chelonia*.)








## TABLE CASES—NORTH SIDE.

568.

ALCITE, a peculiar form of Carbonate of Lime, possessing double refraction. *Iceland.*  
569. SULPHUR. *Mount Vesuvius.*  
570. GARNET. *Mount Vesuvius.*

571. CRYSTALLISED MICA. *Mount Vesuvius.* One of the constituents of granite.

572. CELESTINE. *Mount Vesuvius.* Sulphate of Strontian.

573. HUMITE. *Mount Vesuvius.* A variety of Idocrase with Mica.

574. MEROXENE. *Mount Vesuvius.* A variety of Biotite.

575. MEIONITE. *Mount Vesuvius.* A variety of Scapolite.

576. MICACEOUS IRON ORE. *Mount Vesuvius.*

577. SLAG. *Mount Vesuvius.*

578. MICA. *Mount Vesuvius.*

579. SPECULAR IRON. *Mount Vesuvius.* Iron glance.

580. CRYSTALLISED MICA WITH HUMITE. *Mount Vesuvius.*

581. IDOCRASE WITH GARNET. *Mount Vesuvius.*

582. BROWN MICA. *Mount Vesuvius.*

583. LAVA. *Mount Vesuvius.*

584. MEROXENE. *Mount Vesuvius.*

585. IDOCRASE WITH MEIONITE. *Mount Vesuvius.*

586. CALCITE. *Capri.* Carbonate of lime.

587. **TILES AND MARBLES** found in the ruins of a seraglio tower (550 years old), which was accidentally blown up when the Turks evacuated Adrianople, 1878.

588. **PORTION OF MOSAIC.** *Basilica Pæstum.*

589. **PORTION OF MOSAIC.** *Tibirii Villa, Capri.*

590. **THE GOD APIS.** An Egyptian bronze figure taken from a mummy case.

The Golden Calf of the Israelites. (Nehemiah ix. 18.)

591. **MANTIS RELIGIOSA.** *Capri.*

"The praying Mantis," so called because the first pair of legs of the insect are spread out in a kneeling position, as in the act of supplication.

592. **HELIX DESERTORUM.** *Egyptian Desert, 300 feet above the sea level.*

593. **IANTHINA FRAGILIS.** *Atlantic.*

"The Violet Snail." This little mollusk has a wide range of habitat, being met with all through the Atlantic. It is very gregarious, and lives on the surface of the sea, buoyed up by a float which is attached to the animal, and carries its eggs suspended beneath. Large troops of these little shells with their animals are sometimes cast on the shores of Cornwall after long-continued south-westerly winds.

594. **ROOTS OF KUAKUS.** (*Androphogon Muricatus.*)

The root of a species of grass, called Kus-kus, a plant much used in India and tropical countries for making scented mats, baskets, fans, &c. It retains its perfume for many years.

595. **TWO LARGE BLOCKS OF PURE TIN.** *Bischoff's Mine, Tasmania.*

596. **SEED OR BEAN OF *Entada (Acacia) Scandens.***

A tropical climber, remarkable for the extraordinary long pods or legumes. These pods are sometimes six or eight feet long, and three or four inches wide; the seeds or beans about two inches wide, and half an inch or more thick. They are not edible, but are employed for a variety of purposes, such as for making spoons, snuff-boxes, bottles, weights, &c., and hung by a string to doors for knockers.

597. **SOAP BERRIES** (*Sapindus Saponaria*).



Round black seeds used in the place of soap; that is, the outer skin or covering (removed from these specimens), which is rather soft and of a light brown colour, contains a strong saponaceous principle.

598. *ADINANTHERA PAVONINA*, Seeds of.

599. SAPONACEOUS FRUIT, Seed of.

600. *ASTROCARGUM AUREUM*. Palm seed.

601. NICKER NUTS. Light grey shining seeds, somewhat heart-shaped, of *Guilandina Bonducella*.

The nicker nuts or Bonduc nuts (Bondog, Arabic for necklace), are much used for necklaces. The plant is a prickly, trailing shrub, common to the West and East Indies and to most tropical countries. The seeds, which are very bitter, are also used medicinally.

602. *MUCUNA PRURIENS*. *Jamaica*.

The common name for *Mucuna pruriens* is cowage or cowitch. The large broad pods are covered with sharp hairs or spines, which are notched or finely serrated, and cause violent itching or eruption on the skins of cattle. They are used medicinally as an anthelmintic or vermifuge. The beans are much used for necklaces, rosaries, &c. The plant is a twining herb or shrub, common in Jamaica and other tropical countries.

603. FRUIT OF BRAZIL NUT (*Bertholetia excelsia*).

The Brazil-nut tree is one of the largest in the South American forests, growing often to a height of a hundred or a hundred and fifty feet. The nut is the well-known common edible one (about fifty thousand bushels are annually exported to England from Para). It furnishes a good oil, used by watchmakers and artists. The shell or capsule of the Brazil nut is exceedingly hard and very thick, and, although being nearly as large as a man's head and falling from lofty trees with great force, it does not break. That the seeds may escape to grow, the fruit is furnished with a round opening closed by an operculum or stopper, and when ripe this stopper falls out and releases the seeds.

604. *GUAIACUM OFFICINALE*. Fruit.

605. NECKLACE OF CARVED BEADS. Made of the fruit tui-tui, only worn by persons of royal blood in the *Sandwich Islands*.

606. BRACELET. *Ashanti*. Silver.

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607. ROSARY BEADS. *Turkish*.
608. BRACELET. *Smyrna*. Gold.
609. BROOCH. *Siam*. In gold with parrot's bill mounted.
610. MANDARIN'S NECKLACE. *China*. A necklace of coloured glass beads and ornaments imitating various precious stones.
611. ARMLETS. *West India Islands*. A pair worn by coolies, they are made of various hard, coloured berries.
612. CHILD'S BRACELET. *Bulgaria*. Silver, open worked with loose rings.
613. ORNAMENT OR PERFUME BOX. *Turkish*. Brass, egg-shaped, with filagree and turquoise ornaments.
614. NECKLACE OF BETEL NUT. *Fiji*.
615. SCARF OF OLD ENGLISH BEAD-WORK.
616. BELT CLASP. *Turkish*. In silver, with coloured stones and studs.
617. BRACELET, OR ORNAMENTS. *Turkish*. Silver volutes or pendants.
618. EARRING. *Bulgarian*. A flounce of little pieces of stamped metal, the upper part set with coloured stones.
619. EARRING. *Bulgarian*. Silver gilt, with flower ornamentation and hanging chains.
620. NECKLACE AND PENDANT. *Jeypore*. Gilt metal and gold thread on crimson silk, set with coloured glass, and with gilt half pice-pieces.
621. BRACELET. *Indian*. Silver gilt, a beautiful piece of engraved, carved and pierced native work.
622. BRACELET. *Indian*. Silver.
623. NECK ORNAMENT, BRACELET, AND EARRINGS. *Burmese*. Coloured gold filagree work.
624. GOLD ORNAMENT. *Indian* work.
625. GOLD NECKLET. *Trinidad*. Coolie work: see Lady Brassey's new work, 'In the Trades, the Tropics, and the Roaring Forties,' p. 164.



626. BRACELET. *Soumali*. Silver, similar in pattern and execution to No. 600.
627. HAIRPINS. *Japanese*.
628. CHATELAINE.
629. CHATELAINE. *Turkish*. Silver pendant, with hanging chains and ornaments, and set with coloured stones.
630. ROSARY BEADS. *Turkish*.
631. SCARF, embroidered with Arabic letters and patterns.
632. LAPPET OF BLACK LACE, with pattern worked in wood fibre.
633. SHELL NECKLACE. *Fiji*.
634. SPRAY OF FLOWERS. *Bahamas*. Made by the natives, of various shells (*Cardium*, *Natica*, *Olivella*, and *Marginella*).
635. NECKLET. *Bahamas*. Made of shells (*Tellina radiata* and *Tellina Carnaria*), pierced and strung upon stout wire.
636. BROOCH. *Bahamas*. Made of carved pieces of shell from the interior of the lip of the common Conch (*Strombus Gigas*).
637. SPRAY OF FLOWERS. *Bahamas*. Made of Rice Shells (*Olivella*), &c., fastened by thin wire.
638. BROOCH AND EARRINGS. *Bahamas*. Made from the scales of a fish by a negress.
639. SPRAY OF FLOWERS. *Bahamas*. Made from fish scales, and small shells (*Marginella*, *Tellina*, &c.).
640. SPRAY OF FLOWERS. *Bahamas*. Made from fish scales of small shells.
641. SPRAY OF FLOWERS. *Bahamas*. Made from fish scales and white glass beads.
642. THREE FINGER RINGS. *Trinidad*. Made by coolies. See Lady Brassey's book, 'In the Trades, the Tropics, and the Roaring Forties,' p. 165.
643. TWO PAIRS OF ARMLETS. *Trinidad*. Made by coolies. Ibid. p. 165.

644. TWO PAIRS OF LADY'S BRACELETS. *Trinidad*. Made by coolies. *Ibid.* p. 165.
645. ARMLET OF NATIVE BEADS. *Sandwich Islands*.
646. NECK ORNAMENT. *Marahi Island, Gilbert Group*. The shell of *Ovulum Ovum* (Poached Egg) perforated and worn as a pendant.
647. FINELY CARVED IVORY FAN.
648. SHELL NECKLACE. *Majurd Atoll, Marshall Islands*. Made of two species (*Conus* and *Melampus*) strung upon vegetable fibre.
649. NATIVE BEAD NECKLACE. *Nukunan, Gilbert Group*.
650. CASTANETS, used in dancing. *Ugi, Solomon Islands*.
651. NECKLACE. *Fiji*. Made of the vertebral column of a small snake.
652. NECKLACE OF BEADS. *Nukunan, Gilbert Group*.
653. ARMLET OF CARVED BEADS.
654. NECKLACE OF RED BEADS WITH SHELL ORNAMENT. *Pacific*.
655. NECKLACE, Seeds of *Adinantha pavonina*.
656. NECKLACE, EARRINGS, AND ORNAMENTS. *Brazilian*. Formed of the heads of humming birds, set in gold.
657. NECKLACE. *Mount Carmel*. Small white shells and red beads.
658. NECKLACE OF SEEDS. *Bahamas*. A string of red *Adinantha pavonina*, and of light grey-coloured seeds or fruits of *Lachrymæ Jacobi*, called "Job's tears."

The fruit resembles heavy drops of tears. The plant is a species of grass, a native of India and Japan, much cultivated in gardens in warm countries or hot-houses in England. It is a very pretty plant, growing three or four feet high, with broad glaucous-tinged leaves, and a long drooping spike of flowers, which bends low when the heavy seeds or fruit are ripe,—in fact, hangs its head and drops a tear.

659. NECKLACE OF SEEDS. *Bahamas*. "Job's tears" (*Lachrymæ Jacobi*).



660. ARMLET OF BEADS. *Faté Islands, New Hebrides.*
661. NECKLACE. *Bahamas.* Made of the shells of *Columbella mercatoria*.
662. NECKLACE. *Bahamas.* Made of the shells of *Columbella nitidula*.
663. OPIUM PIPES, WITH CASE AND POUCH. *Simoniseki, Japan.* The pipes of silver and bamboo, the cases of white leather partly gilt.
664. WOODEN POT WITH HANDLES.
665. WOODEN POT, carved.
666. TEAPOT OR KETTLE. *Chinese.*
667. BALL MADE OF COLORED SILKS. *Japanese.*
668. NECKLACE OR ROSARY. *Mount Carmel.*
669. ROSARY BEADS. *Turkish.*
670. FLY SHUTTLE. *Shetland Islands.* The first shuttle made in the island of Sanday, over a hundred years old.
671. WOOL. *Shetland Isles.* In the natural state as taken off the sheep's back.
672. WOOL. *North Mavin, Shetland Islands.* White fleece.
673. YARN. *Shetland Islands.* In first stage of spinning, oiled.
674. YARN. *Shetland Islands.* In second stage of spinning.
675. PATOO-PATOO or Meri-meri. *New Zealand.*

This remarkable and beautiful club is made of Basalt. It is held in great reverence by the Maoris, who are the only makers of such perfect stone weapons with handles. Chiefs only were permitted to possess them, such possession the King Te-Whaio, who was lately in England, said, conferred, according to the Maori laws, certain lands upon the holder; in fact, it was a kind of title-deed. It was used in warfare, but more generally as a staff of office, the holding up of which demanded silence, in the same way as the Jöey of the Chinese, and the Golden Wand of the ancient Incas of Peru. Length,  $13\frac{1}{2}$  inches; width,  $2\frac{3}{4}$  inches.

676. SAME AS ABOVE. Length  $13\frac{1}{2}$  inches, width  $2\frac{3}{4}$  inches.
677. MEDICINE CHESTS.
678. BRACELET OF IVORY. *Ashanti.* Inlaid with silver.

Worn only by members of the Royal family; procured at Coomassie by one of the officers of the Black Watch. These bracelets are handed down from generation to generation and are very rare.

- 679. CHUNAM OR LIME SPOON. *Solomon Islands.* Carved.
- 680. CHUNAM OR LIME SPOON. *Solomon Islands.* Of another pattern. Carved.
- 681. CHUNAM OR LIME SPOON. *Solomon Islands.* Another type. Carved.
- 682. CHUNAM OR LIME SPOON. *Solomon Islands.* Carved.
- 683. TORTOISE SHELL SPOON. *Pelew Islands.*
- 684. COMB. *Pelew Islands.* Made from a cylindrical piece of wood partially removed and cut into teeth.
- 685. LIME SPOON. *New Guinea.*
- 686. LIME SPOON. *New Guinea.*
- 687. COMB. Carved from a piece of flat wood.
- 688. LIME OR CHUNAM SPOON. Carved and ornamented.
- 689. LIME SPOON. Carved and ornamented.
- 690. COMB. *Treasury Island, Solomon Group.* Made of strips of wood, bound with vegetable fibre.
- 691. BOOMERANG. *Australia.*
- 692. LIME SPOON. *Solomon Island.*

The capacity for design in many of the South Sea Islanders is well shown in the elaborate carving of their paddles, and the handles of many of their axes, and war-clubs; the large series of lime spreaders in this collection also shows this faculty to great advantage, and it will be found that in all the examples there are no duplicates. The shape in many cases is very graceful, and the carved ornamentation of their handles very intricate but yet symmetrical. There must be considerable originality in the mind of the native Melanesians, as well as much patience, to enable them to produce such varied patterns, especially with their rude and primitive appliances.

- 693. LIME SPOON. *Solomon Island.* Carved.
- 694. LIME SPOON. *Solomon Island.* Another pattern. Carved.
- 695. LIME SPOON. *Solomon Island.* Carved.
- 696. LIME SPOON. *Solomon Island.* Carved.



697. TWO SPOONS. *Fly River, New Guinea.* Brought by Dr. Comrie.
698. NECKLACE. *South Seas.*
699. FISH HOOK. *South Seas.* Made of bone, pearl with tortoiseshell hook.
700. THREE BONE NEEDLES. *Greenwich Island.*
701. COMB, carried in the ear. *Maraki Island, Gilbert Group.*
702. MEDICINE MAN'S SPIRIT CATCHER. (CHYMPEAN.) *British Columbia.* Made of bone, engraved, and inlaid with mother-of-pearl.
703. MEDICINE MAN'S SPIRIT CATCHER. (CHYMPEAN.) *British Columbia.* Engraved, but not inlaid.
704. CHARM, in bone with crocodile's head. *British Columbia.*
705. TWO BONE SPEARS. *British Columbia.*
706. RARE SPEAR HEAD IN BONE. *British Columbia.*
707. RARE SPEAR HEAD IN BONE. *British Columbia.*
708. SERIES OF SIX NOSE ORNAMENTS OF VARIOUS SIZES, cut out of shell, used by the Papuans. *New Guinea.*
709. EARTHENWARE COOKING POT. *Treasury Island, Solomon Group.*
- The use of earthenware pots is unknown in most of the Pacific Islands except Fiji.
710. NECKLACE OF SHELLS AND NUTS. *Papuan.*
711. TWO RUDE NECKLACES OF AMBER. *Solomon Islands.*
712. NECKLACE OF SHELL. *Fiji.*
713. AMBER NECKLACE. *Fiji.*
- 714 to 718. TEA SET of Home-made unbaked Pottery. *From the Isle of Lewis, Hebrides.*
719. TOP. East Indian Lacquer.
720. LAMP. *Pelew Islands.* With cord attached for hanging.
721. GOURDS. *South Pacific,* used as drinking bowls.
722. WOODEN DISH. *Korrar, Pelew Islands.*
723. TORTOISESHELL TRAY. *Galapagos.*

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- 724-725. TORTOISESHELL SPOONS. *Galapagos*.
- 726-727. ARMLETS OF SHELL. *New Guinea*.
- 728-731. Armlets of Shell. *Fiji*. These are cut from the upper part of the outer whorl of a large cone (*Conus literatus*).
732. ARMLETS. *Fiji*. Formed of various emblems carved in bone.
733. ARMLET OF SHELL. *Fiji*. This and several armlets in the collection are formed from the edge of the outer whorl of a large trochus (*Trochus Niloticus*).
734. NECKLACE. *Solomon Islands*. Made of various shells, glass beads and seeds.
735. LOWER HUMAN JAW. *New Guinea*. Used as a neck ornament by a victorious warrior.
736. BRACELET. *York Island*. Cut from pieces of shell.
- 737-740. ARMLETS. *New Guinea*. See No. 733.
741. BREAST ORNAMENT. *Fiji*. Made from the central part of the Pearl Oyster (*Avicula margaritifera*).
742. ARMLET OF SHELLS. *Solomon Islands*. Made of nineteen shells (*Ovula*) strung together.
743. SNUFF BOX. Wood, in the form of a bird with moving wings, made by the prisoners at Rhodes.
744. PURSE. *Turkish*. Crimson leather, embroidered with gold.
745. GOURD. *Tahiti*. Used as a water-bottle.
746. JUG. *Peru*. Of unglazed earthenware, and of curious form.
747. BREAST ORNAMENT. *New Guinea*. Cut from a shell.
748. BREAST ORNAMENT.       "       "
749. BREAST ORNAMENT.       "       "
750. NECK ORNAMENT OF SHELL.       "
751. WALRUS TOOTH, etched, with a ship.
752. WALRUS TOOTH, etched, with a ship.
753. ARMLET OF SHELL. *Fiji*. With strings of beads and shell ornaments.



754. NECK ORNAMENT. *Fiji*. Cut from pearl oyster, in the shape of a crescent and engraved.
755. NECKLACE OF SHELLS. *Fiji*.
756. SPERM WHALE TOOTH. *Arctic*.
757. WAIST BELT. *Zulu*. Made from small circular pieces of shell, and worn by the natives.
758. SHELL, ARMLET. *New Guinea*.
759. SQUARE NECK ORNAMENT. *Solomon Islands*. Made of Tortoiseshell.
760. BREAST ORNAMENT. *New Guinea*.
761. BREAST ORNAMENT. „ „
762. NECKLACE. *Soumali Indian*. Leather with two large amber charms.
763. SEA-WEED. *Honolulu*. Eaten with "Poi," a popular Native food.
764. NECK ORNAMENT of Boar's teeth bound with cord. *New Guinea*.





## WALL CASES—NORTH SIDE.

765.



WHITE SCARF, embroidered with gold. *Madagascar.*

766. FOX'S BRUSH. Mounted with handle, engraved, "A. B., Bradwell Grove, March 27, 1873."

"A short run." After twenty minutes' burst.

767. FOX'S BRUSH. Mounted with handle, engraved, "Killed in the open, January 27th, 1873, after a run of four hours, twenty-eight minutes; twenty-three miles from point to point." "A long run."

768. SCARVES, richly embroidered, presented to Lady Brassey, by the late King of Siam.

769. RUG MADE OF PEACOCK FEATHERS. *Burmah.*

770. BAG. *North Island, New Zealand.* Made of native flax.

*Phormium tenax*, the native flax of New Zealand, is a flaglike plant of the lily species which grows in profusion throughout the country. The dark green shiny swordlike leaves, which shoot up in clusters from the root, something like those of the *gladiolus*, attain often a height of ten or twelve feet, and each year the plant sends up very quickly a long lilylike stalk, on the top of which are groups of crimson flowers. The natives have long been accustomed to extract the extremely tough fibre from the leaves by scraping them with shells. Long hanks of this may easily be stripped off from a green leaf with a knife, and it is exactly in such a raw state, simply washed and dried, that the fibre of which this bag is made appears. This excellent fibre was at one time (if indeed it is not so now) largely exported to Europe, for ropes and cordage, and used for and mixed with Manilla hemp. The New Zealand colonists founded great hopes in the expectation of its proving one of their principal industries. At one time (for three



or four years previously to 1873) many thousands of tons of prepared fibre were annually shipped home, and a large number of mills with the necessary machinery were in full work in all parts of the colony. In fact, there was a perfect flax fever. But about the year 1873 prices suddenly fell, so that it no longer paid to manufacture the fibre. The mills were closed and many of the owners ruined, and at present the industry may be said to exist no longer. The principal cause no doubt exists in the constitution of the fibre, which contains a silicious matter which has hitherto baffled science to destroy, and which renders it difficult to spin for textile fabrics without at least great changes in present machinery. It seems certain also that commercial combinations in England contributed largely to the ruin of the trade. Very fine sheetings and cloths have been experimentally manufactured from the fibre, and the hope is not dead that it may yet prove a great industry. At one time the New Zealand government offered a very large reward for a successful process of treating the fibre and eliminating the silicious matter. It is curious that, with the most improved machinery, the colonial flax mills could never succeed in producing anything like so delicate and soft a material as that which the natives procured from the leaf with their rude shell implements. The specimen under notice is not, however, of the finest kind.

771. ORNAMENT OF FEATHERS, belonging to Bird of Paradise.  
*Papua.*

772. GIRDLE of Bird of Paradise feathers. *Papua.*

773. CONICAL CAP, called a *timit* cap. *Jamaica.* Made from the delicate brown net-work that covers the spathe of the Bussa palm, *Manicaria saccifera*, and decorated with parrots' feathers. For full description, see Lady Brassey's new work, 'In the Trades,' etc., page 166, engraving 107.

774. PAIR OF SHOES. *Malay.*

775. MAT. *Southern Seas.*

776. PAIR OF SEA BIRDS' SKINS, dyed orange in the centre.  
*Cape Otway.*

777. SHOES. *Chinese.* Embroidered in gold and silver.

778. NECKLET OF FEATHERS. *Southern Seas.*

779 to 782. LAMP OR CANDLE SHADES, ornamented with native ferns. *Jamaica.*

783. CLOAK OF REVA-REVA. *Mahaena, Tahiti.*

Reva-reva is an ornament resembling plumes of feathers, and is made from the inner pith of the young shoots of the cocoa-nut tree. It is rather expensive, as it can only be procured by the destruction of the tree, and is in consequence usually worn by chiefs and persons of distinction.

784. SMOKING CAP. *Fair Isle, Shetland.* Said to be the finest specimen of knitting ever produced there.

785. SMOKING CAP. *Shetland.* Very fine.

786. MANTLE, made from the feathers of the head of the wild duck. *Bombay.*

787. PETTICOAT OF BROAD GRASS. *Fiji.*

788. WATER BAG, made of kid skin, Patagonia. *Sandy Point, Straits of Magellan.*

789. PAIR OF SHOES. *Chinese.* Embroidered in silk.

790. GIRDLE OF SINNET. *South Sea Islands.*







## WALL CASE, No. 2.—NORTH SIDE.

791.



MOCCASSIN of rein-deer skin. *Lapland.*

792. LADIES' SHOES. *Chinese.*

793. PAIR OF SHOES. *Chinese.*

794. MAT, of arrow-root fibre. *Tahiti.*

795. PARAGUAYAN LACE SHIRT.

This lace is of considerable rarity, and presents several remarkable peculiarities. It was made for its original owners, a family of distinction in Paraguay, by their native servants, from cotton of their own spinning. This description of lace is almost unknown to European collectors, and is of a very fine fabric and design. The art of lace-making is said to have been introduced into Paraguay by the Jesuits about the middle of the sixteenth century, and taught by them to the natives.

796. REVA-REVA. *Tahiti.* See No. 783.

797. TAPPA. *Fiji.* Part of the robes worn by Tappa-hua, a leading chief of Fiji, on surrendering the islands to Sir Arthur Gordon.

Tappa is the bark or pith of the paper mulberry. Its use is, or was, universal in the South Sea islands for mats and clothing, and it is made of many qualities. In manufacturing it the narrow strips of pith are laid lengthways and crossways alternately, so as to interlace each other, on a long narrow table, wetted profusely with water, and then hammered together with mallets.

798. CLOAK, made of the feathers of thirty young ostriches,

all from one nest, killed when they were a fortnight old.  
*Sandy Point.*

799. CLOAK, headdress and Fan, made of the inner fibre of the cocoa-nut. Presented by the Queen of Tahiti.

A grove of cocoa-nuts was cut down to make the above cloak out of the inner fibres of the young shoots.

800. NECKLET OF BEADS. *Africa.*

801. BAG OR POUCH, embroidered in beads. *Africa.*

802. BAGS of woven vegetable fibre.

803. BETEL OR LIME SPOON. *New Guinea.*

804. CHIEF'S ROBE, of Fijian Tappa.

- 805, 806, 807. HATS, made of various kinds of straw, palm leaf, and arrowroot fibre. *Tahiti.*

808. SCARF, beautifully embroidered in white silk. *Madagascar.*

809. COLOURED HANDKERCHIEFS. *Trinidad.*







## CENTRAL SCREEN.

810.



### TWO PHOTOGRAPHS OF NORMANHURST COURT.

811. THREE PHOTOGRAPHS, representing Lady Brassey's exhibition at the Fisheries, Penzance,

1884. This Exhibition was promoted for providing a harbour for the fishermen of Newlyn. The committee unanimously voted Lady Brassey a special diploma and thanks upon vellum for her magnificent exhibit, which attracted no less than over 19,000 visitors in one week.

812. PHOTOGRAPHS of Sir Thomas and Lady Brassey.

813. SKETCH of line-of-battle ship in red ink.

It is one of many made by the late Sultan Abdul Aziz, who, it is said, was often in the habit of thus employing himself while engaged in conversation, or to illustrate his ideas. The sketch, it will be seen, has real artistic merit and considerable vigour of execution. It was given to Lady Brassey by M. Chlebowski, who was engaged for many years as painter to the Sultan.

814. FRAME, containing Japanese coinage.

1. Japanese new Copper Coinage, Two Sen Piece. 2. Japanese old Copper Coinage, Double Sen. 3. Japanese new Copper Coinage, Two Sen Piece. 4. Japanese *Gold* Oval Plate, with character mounted as Pin. 5. Japanese old Copper Coinage, One Sen. 6. Japanese old Copper Coinage, Tempo or Mace, Oval. 7. Japanese old Copper Coinage, Tempo or Mace, Oval. 8. Japanese old Copper Coinage, One Sen. 9. Japanese old Copper Coinage, One Sen. 10. Siamese

Bullet Money, smallest fraction of Tical, 14 G<sup>rs</sup>. 11. Japanese old Copper Coinage, One Seni. 12. Siamese Bullet Money, fraction of Tical, 29 G<sup>rs</sup>. 13. Japanese old Copper Coinage, Double Seni. 14. Siamese Bullet Money, fraction of Tical, 56 G<sup>rs</sup>. 15. Japanese old Copper Coinage, Double Seni. 16. Siamese Bullet Money, Half Tical, 117 G<sup>rs</sup>. 17. Japanese old Copper Coinage, One Seni. 18. Siamese Bullet Money, One Tical, 238 G<sup>rs</sup>. 19. Japanese old Copper Coinage, One Seni. 20. Japanese new Copper Coinage, Half-Sen Piece. 21. Siamese Bullet Money, Two Tical Piece, 472 G<sup>rs</sup>. 22. Japanese new Copper Coinage, Half-Sen Piece. 23. Japanese new Copper Coinage, One Sen Piece. 24. Siamese Bullet Money, Four Tical Piece, 941 G<sup>rs</sup>. 25. Japanese new Copper Coinage, One Sen Piece.

815. FRAME, containing Japanese silver coinage.

1. Silver, Itchi-bu = 1s. 5¼d.
2. Japanese Koban, oval, gold = 1l. 3s. 1d.
3. Japanese Silver, Itchi-bu = 1s. 5¼d.
4. Japanese Half Koban, oval, gold = 9s.
5. Japanese Half Koban, oval, gold = 9s.
6. Japanese Half Koban, oblong, base gold = 9s.
7. Japanese Silver Itchi-bu = 1s. 5¼d.
8. Japanese new Silver Coinage, Five Sen Piece = 3d.
9. Japanese Silver Ingot Money, or Ita-gamil, weight 5·7½ dwts.
10. Japanese new Silver Coinage, Five Sen Piece = 3d.
11. Japanese Half Koban, oblong, base gold = 9s.
12. Japanese I-shu or quarter Itchi-bu, silver, = 3¾d.
13. Japanese Kodoma or Bullet Money, silver, 4 dwts. 6 grs.
14. Japanese Kodoma or Bullet Money, but differently stamped, 5 dwts. 3 grs.
15. Japanese I-shu or Quarter Itchi-bu, silver = 3¾d.
16. Japanese Circular Piece, counter marked, base gold, uncertain value.
17. Japanese Circular Piece, probably the half of the above.
18. Japanese I-shu or Quarter Itchi-bu, silver = 3¾d.
19. Japanese Ni-shu or Half Itchi-bu, base gold = 9d.
20. Japanese new Silver Coinage, Five Sen Piece = 3d.
21. Japanese Quarter Koban square, base gold = 4s.
22. Japanese new Silver Coinage, Five Sen Piece = 3d.
23. Japanese I-shu or Quarter Itchi-bu, silver = 3¾d.
24. Japanese Ni-shu or Half Itchi-bu, base gold = 9d.
25. Japanese new Silver Coinage, Twenty Sen Piece = 10d.
26. Japanese new Silver Coinage, Twenty Sen Piece = 10d.
27. Japanese new Silver Coinage, Twenty Sen Piece = 10d.
28. Japanese I-shu or Quarter Itchi-bu, silver = 3¾d.



29. Japanese new Copper Coinage, One Rin Piece.
30. Japanese new Silver Coinage, Trade Dollar, 4s. 3½d.
31. Japanese new Copper Coinage, One Rin Piece.

It would appear that in early days in Japan gold was plentiful and silver scarce, and at that time the gold coins consisted of thin plates, from which portions, as necessity required, were cut off and weighed. These coins were mostly oval in form, doubtless being easy to pack in boxes. The silver coinage was generally oblong, while the copper resembled the copper cash of the Chinese, being strung on strings by means of a square hole in the centre of each.

The words O-ban and Ko-ban mean respectively great and little plate. The unit of value was the *ri-yo*, and the Koban was a one ri-yo piece, weighing about eleven and a half pennyweights. The gold "*Yen*" is the present standard coin, and it is nearly as possible equivalent to the American gold dollar.

816. FRAME, containing series of medals presented to the late Thomas Brassey, Esq :—

1. The Duke of Orleans.
2. Victoria Bridge, Canada.
3. Great Exhibition, 1851.
4. Birkenhead Docks.

817. FRAME, containing the decorations conferred on the late Thomas Brassey, Esq., and consisting of:—

1. The Iron Crown (Austria).

The order of the Iron Crown was presented to Mr. Brassey in the month of October, 1866.

2. The Order of SS. Maurizio e Lazzaro (Italy).

Mr. Brassey was made a "Cavaliere dell' Ordine dei SS. Maurizio e Lazzaro" on the 22nd May, 1864.

3. The Grand Cross of the Legion of Honour (France).

The Imperial decree nominating Mr. Brassey Chevalier of the Legion of Honour bears date 12th January, 1856.

818. CASE containing coin. Silver. *Siamese*.

*Bullet-shaped Coins.*

- |   |            |
|---|------------|
| 1. 1 Tamlu'ng (= 4 Tical) with the <i>Kra Mongkut</i> stamp | 1851-1861. |
| 2. 1 Sangtical (= 2 Tical)                                  | 1851-1861. |
| 3. 1 Tical (= 4 Salu'ng), (Standard 230 grains pure silver) | 1851-1861. |
| 4. 1 Sangsalu'ng (= 2 Salu'ng)                              | 1851-1861. |
| 5. 1 Salu'ng (= 2 Fu'ang)                                   | 1851-1861. |

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6. 1 Fu'ang ( = 4 Pai) with the <i>Kra Kunto</i> stamp	1851-
7. 1 Songpei ( = 2 Pai) . . . . .	1851-
8. 1 Pai (2 At) . . . . .	1851-

*Flat round Coins.*

1. 1 Sangtical. Present dynasty, 4th king (1851-1868)	1861-1868.
2. 1 Tical. Present dynasty, 4th king (1851-1868)	1861-1868.
3. 1 Tical. Present dynasty, 5th king (1868-188 )	1868-
4. 1 Sungsalu'ng. Present dynasty, 4th king	1861-1868.
5. 1 Salu'ng. Present dynasty, 5th king	1868-
6. 1 „ „ „ 4th „	1861-1868.
7. 1 Fu'ang. „ „ 5th „	1868-
8. 1 Sungpei. „ „ 4th „	1861-1868.

819. WATER-COLOUR DRAWING of front view of case containing Lady Brassey's exhibit at the International Fisheries Exhibition, 1883, by Ernest Griset.

820. FRAME, containing series of various medals awarded to Lady Brassey.

821. SERIES OF SAXON PENNIES.

These coins were found in a field in the parish of Sedlescomb; they are mostly of the reign of Edward the Confessor, and some were coined at the Mint in Hastings, others at Chichester, &c. They had been in a leather bag; this was placed in an iron pot, fragments of both being found. The original number was considerable, nearly enough to fill a pint measure.

822. CASE, containing seventeen medals of various dates.

823. FRAME, containing engraving of the Brassey testimonial shield.

This shield is of silver gilt, thirty-six inches in diameter, and weighs nearly 500 ounces. The centre is surrounded with a wreath of filleted oak leaves, within which is the inscription. Around this, the circle is divided into twelve arch-headed niches, from the keystones of which are suspended medallions containing miniature portraits on ivory of the engineers under whom Mr. Brassey erected railway works. Above these are enamel paintings of twelve great engineering works. The outer edge is a chaplet of laurel leaves, upon the enamelled fillet of which are names of agents in Mr. Brassey's em-



ployment. The shield was designed by Mr. H. P. Bust, modelled by W. F. Spencer, and executed by Messrs. Garrard; the portraits and views enamelled by Simpson. The presentation was made in 1851, and the shield exhibited at the Great Exhibition of that year.

*Inscription*:—"Presented to Thomas Brassey, Esqre., with portraits of Mrs. Brassey and himself, to express the gratitude, respect, and good wishes of his agents, sub-contractors and workmen, and to perpetuate the association of his name with some of the greatest works and most eminent engineers of his country. 2nd April, 1851."

*Portraits of Engineers*.—Rendell, Bidder, Robertson, Brunel, G. Stephenson, Locke, W. Cubitt, R. Stephenson, Errington, Bruff, J. Cubitt, Dockwray.

*Engineering Works*.—Ouse Bridge, Brackley, Frodsham, Harecastle Tunnel, Dee Viaduct, Penkeridge, Windsor Bridge, Welwyn Viaduct, Chester Railway, Eden Viaduct, Manningtree.

*Agents*.—H. Harrison, Beattie, Horn, J. Trubshaw, Mould, Goodfellow, Day, Reekie, Dent, Trubshaw, Field, Meakin, Fletcher, Walker, Strapp, Burnet, Bobson, T. Woodhouse, Smith, Stephens, Burt, A. Ogilvie, Bartlett, Milroy, Tomalin, Holford, Holme, Jones, G. Harrison, G. Woodhouse, Falshaw, Favrin, P. Ogilvie, Barnard, Heald, Ballard.

824. FRAME, containing the certificate of the King of the Hawaiian Islands, appointing Lady Brassey to be a Knight Companion of the Order of Kapiolani, of the decoration of which order Lady Brassey was the first recipient; the King's autograph is attached.
825. PHOTOGRAPH, coloured, of the 'Ellida,' the Viking boat which sank in Loch Carron, 1884.

In connection with this accident, Mr. Brassey, Sir Thomas Brassey's son, performed a gallant and humane act, for which he was awarded the silver medal and thanks of the Royal Humane Society. The 'Ellida' is a boat attached to the yacht *Sunbeam*, and during a journey from the ship to the shore, sprang a leak and rapidly filled; the crew, some of whom could not swim, were left struggling in the water, and Mr. Brassey, who was among them, seeing one (a groom belonging to their establishment) sinking, gave up the oar on which he was resting, and supported the drowning man until rescued.

826. FRAME, containing specimen page of Lady Brassey's new work, 'In the Trades, the Tropics, and the Roaring Forties.'

827. LONGITUDINAL section of the Viking boat found at Gokstad, Norway.

For detailed description, see No. 346.

828. DRAWING of restored model of Viking boat.  
829. DRAWING of utensils found in Viking boat.  
830. HALF MODEL OF YACHT "ALBATROSS," formerly belonging to Sir Thomas Brassey.  
831. HALF MODEL OF "MURIEL," formerly belonging to Sir Thomas Brassey.  
832. HALF MODEL OF "SUNBEAM."  
833. SHIELD, containing a large series of antiquities from Egypt; probable date about 1200 B.C.  
834. PHOTOGRAPH, of the missionary ship "Allen Gardner," taken before starting on a missionary Tour to Tierra del Fuego.  
835. PHOTOGRAPH of a drawing of Primitive or Pre-historic man, by Ernest Griset.

The prognathous jaw and developed thumb, as well as the whole of the formation of the body of the savage according to the ideas of archæologists, is well carried out.

836. MASK, very rare. *Mallicolo Islands, New Hebrides.* See No. 375.  
837. to 839. LARGE AMPHORÆ OR WINE JARS, excavated by Colonel Falk Warren, for Lady Brassey, at Cyprus.  
840. VALVES of the *Tridacna gigantea*.  
841. SMALL. Ditto.  
842. ROYAL FEATHER CLOAK, scarlet and yellow, *Oo* and *Mamo*, feathers. A diamond-shaped pattern on a yellow ground *Sandwich Islands*.

This Royal cloak is made from the feathers of the *Oo* and *Mamo* birds, local names given to the rare birds from which these feathers are procured. It measures 5 feet in length, 2 feet 4 inches at the neck, and 12 feet at the skirt. There are only a few specimens known, which were brought over by Captain Cook from Owhyhee, and which are now in the British Museum. The manufacture was a work of years, and the art is now believed to be obsolete. The feathers are



woven with great skill into as it were a string. Each cloak has its own history, which is inscribed in the archives of the Hawaiian Islands. King Kalakaua, during his visit to this country in 1881, when at Normanhurst Court, expressed his surprise at discovering such a rarity so far away from his dominions, and promised that the history of this cloak should be copied from the ancient "Meles," or records, and sent to Lady Brassey. King Kalakaua was at that time endeavouring to form a collection of feathers to make a new royal robe for the Queen Kapiolani, for which purpose he had offered a dollar for every *single* feather. Some idea of the extraordinary intrinsic value of this cloak may be formed from the above statement. It was connected with the first pretended cession of Tahiti, Tamu, and the Society Islands to the French in 1843. In that year Sir Thomas Trigge Thompson (then Captain Thompson) was in command of H.M.S. *Talbot* in the South Seas. The French, partly by promises, partly by threats, had extorted from Queen Pomare a cession of her kingdom to their nation, but she, who had never willingly consented, appealed to the British commander. Her pathetic letters to the Queen of England for assistance are recorded. Captain Thompson would not recognise the newly-constituted authority, and persisted in saluting the old national flag, and in refusing any honour to that hoisted by the French officials. It is unnecessary to record the history of the events connected with this incident, but it may be confidently surmised that Queen Pomare was not wanting in gratitude towards the British commander who stood by her and upheld her rights. The above royal precious feather cloak was received as a present by Captain Thompson in recognition of his services. The distance between the Sandwich Islands and the Society Islands being some 2200 miles, and the feather cloaks being only made at the former, it is probable that the cloak in question had been sent from Hawaii to Papiete as a present to Queen Pomare, or to one of her predecessors on some previous occasion. In chapter xvii. of the '*Sunbeam*' is a drawing of one of the other cloaks known.

843. NECKLACES OF LEIS FEATHERS, in same case, made of the *Oo* and *Mamo* feathers. *Sandwich Islands*.
844. HORSE TRAPPINGS, beautifully inlaid with precious turquoise, and cornelian. Presented to Lady Brassey by the late Sultan of Turkey.
845. BANANA LEAF, used as a case for keeping *Oo* and *mamo* feathers. *Honolulu*.
846. CASE, containing a most beautiful selection of the graceful, interesting and delicate corals—*Stylaster sanguinea*,

from Australia. In the centre is a specimen of the *Coralium rubrum*. *Bona. Sicily.*

847. LARGE GLASS CASE, containing a series of Sponges, Corals, Star fish, and Gorgonia.

This case contains a number of Natural History and other specimens, the most noteworthy being a series of the Bahamas Sponges, with some corals and a handsome Gorgonia.

The sponges are almost the lowest grade of organism in the animal kingdom; beyond the fibrous brown substance called sponge, with which we are so familiar, they seem to possess hardly any definite organization. This substance is the structure only upon which the softer parts of the animal are supported. In life these appear like a soft jelly, perforated with a number of holes, through which currents of water are continually flowing, providing it with the minute particles of vegetable or other matter upon which it feeds; these are simply absorbed into the fleshy part of the animal (as there is no mouth, or opening corresponding to it, and no stomach, or digestive apparatus), and are then assimilated and the undigested portions expelled through one of the holes.

Sponges are found in nearly every part of the world, many species being known in the British Seas, but it is in the tropical and warmer waters where they grow in the greatest profusion and diversity. In the Eastern and deep seas are found those curious forms which have a large development of the silicious material in their substance, as *Euplectella* (see No. 1) and *Hyalonema* (No. 106), but the horny and fibrous sponges seem to abound most about the Eastern end of the Mediterranean (from whence the most commercially valuable are obtained) and the West India Islands, the specimens in this case having been obtained by Lady Brassey at the Bahamas and Bermudas in the autumn of last year. An account of the "Sponge gardens," storehouses, and other arrangements for their collection and preparation may be found in her lately published work. 'In the Trades, Tropics, &c.' The specimens in the collection belong mostly to the Genera

*Euspongia.*

*Hippospongia.*

*Ptilosarcus.*

*Tuba* and

*Echinonema.*

The other specimens in the case are of a miscellaneous description, and a small descriptive ticket will be generally found appended.



848. Collection of Metalliferous Minerals. *From the Lake Superior mines, Michigan, U.S.A.*

1. Schistose Quartz with a little Gold and traces of Pyrargyrite. (Brittle Silver.)
2. Quartz Rock coloured by Chlorite. *From a metalliferous vein.*
3. Gold in Chloritic Quartz with Blende.
4. Native Copper. *Quincey Mine.*
5. Serpentine Marble. *Deer Lake Mine, Marquette.*
6. Mass of Felstone and Quartz with Elaterite. (Elastic Bitumen.)
7. Serpentine Marble.
8. Iron Ore. *Michigan Mine, June 14th, 1882.*
9. Specular Iron Ore or Iron Glance.
10. Red-banded Jasper with Hæmatite. *Jackson Mine.*
11. Argentiferous Galena. *From opening a line between Secs. 34 & 35 T. 49, N. R. 27, W. 2 Assays average  $19\frac{96}{100}$  oz. Silver, 54 per cent. lead to the ton.*
12. Native Copper. *Calumet and Hecla Mine.*
13. Native Copper. *Calumet and Hecla Mine.*
14. Native Copper and Calcite. *Quincey Mine.*
15. Native Copper in Matrix. *Calumet and Hecla Mine.*
16. Dark Green Steatite Clay with Chlorite.
17. Black Iron Ore. *Cliff Mine Marquette, 500 ft. deep.*
18. Rolled Pebble of Indurated Clay to which small pieces of Rock Quartz have been cemented to peroxide of iron.
19. Native Copper (Arborescent). *Quincey Mine.*
20. Native Copper in Porphyritic Felsite with crystals of quartz.
21. Native Copper in Amygdaloid trap rock with crystals of quartz and felspar.
22. Specular Iron Ore.
23. Hæmatite Iron with Quartz. *Republic Mine, Marquette Co., Lake Superior.*
24. Quartzite, Close-grained Quartz Rock.
25. Massive Epidote with Hornblende.
26. Native Copper.
27. Iron Ore. *M. Mine, June 14th, 1882.*
28. Chlorite (Pseudomorphic) after Garnets. *Spurr Mine, Michigan.*
29. Garnets (Pseudomorphic in distorted Rhombic Dodecahedrons, *Spurr Mine.*
30. Botryoidal Hæmatite. *Pendell Mine, L. S.*
31. Native Copper with Native Silver. *Lake Superior.*
32. Specular Iron Ore, *Champion Mine.*
33. Iron Ore slightly magnetic. *Argyll Mine.*

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- 34. Micaceous Iron Ore, *Northumberland Mine*, and Pyrites Iron Ore, *Champion Mine*.
  - 35. Chromite with probably a little Magnetite.
  - 36. Specular Iron worked with a diamond drill. *Michigan*.
  - 37. Magnetic Iron Ore. Very poor in Metal.
  - 38. Iron Ore called Suffolk Ore. *Champion Mine*.
  - 39. Hæmatite Iron Ore. Soft variety. *Dalliba Mine*.
  - 40. Chromite (Chromate of Iron), Chelsea Ore. *Champion Iron Mine*.
  - 41. Hæmatite Iron Ore. *Mitchell Mine*.
  - 42. Hæmatite Iron Ore. *L. S. Mine*.
  - 43. Hæmatite Iron Ore. *Milwaukee Mine*.
  - 44. Hæmatite Iron Ore. *Cambro Mine*.
  - 45. Hæmatite Iron Ore. *Lowthian Mine*.
  - 46. Iron Ore, termed Pascoe Ore. *Pascoe Mine*.
  - 47. Iron Ore. No. 2 *Sterling Mine*.
  - 48. Ironstone and Micaceous Iron Ore. *Northumberland Mine*.
  - 49. Iron Ore. Variety called "Chelsea" Ore. *Champion Mine*.
  - 50. Specular Iron Ore. *Argyll Slate Mine*.
  - 51. Brown Specular Iron Ore. No. 1 *Lake Superior Mine*.
  - 52. Specular Iron Ore. No. 1 *Humboldt Mine*.
  - 53. Specular Iron Ore, Columbia Ore. *Columbia*.
  - 54. Specular Iron Ore. *Republic Mine*.
  - 55. Specular or Micaceous Iron Ore. *West Republic Mine*.
  - 56. Specular Iron Ore. *Called New Burnt Ore*.

- 849. PICTURE, representing mode of burial among the North American Indians, by Ernest Grisct.
- 850. PHOTOGRAPH OF THE 'SUNBEAM,' R.Y.S.
- 851. CHAIR, model of King Edward's chair in Winchester Cathedral.
- 852. TWO BETEL SPREADERS. *Papua*.
- 853. TWO BOOMERANGS. *Australia*. For description, see No. 367.
- 854. DRUM COVERED WITH SNAKE SKIN. *Papua*.
- 855. ASSEGAI. *Isandhlana, South Africa*.
- 856. CARVED STICK. *Papuan*.
- 857. CARVED SPEAR. *South Seas*.
- 858. TWO PADDLES PAINTED, of very rare type, used for steering. *New Guinea*.



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859. WOOMERA. *Australia*. A throwing Stick, used by the Natives for propelling long spears, at which they are very expert.
860. PADDLE, used also as a club. *Solomon Islands*.
- 861 & 862. SHIELDS, ornamented with Bird of Paradise Feathers. *Papua*. Extremely rare.
863. HAMMOCKS. *Trinidad*.





## SMALL CENTRE CASE, No. 1.

864 to 866.



AGGERS IN SILVER SHEATH. *Turkish.*

867. PISTOL WITH FLINT LOCK. *Turkish.*

868. NETSUKÉ OR CHINESE IVORY CARVING.

Figure upon a fish.

869. A PLEASURE BOAT. *Japanese.* With figures of two men and two women, boxes of provision, &c. The figures are beautifully modelled, and heightened with colours. Ivory, length 12 in.

870. MODEL OF A BOAT. *Japanese.* Carved ivory with boat men, and other figures. The figures whose attitudes and expressions are very clever, are partly coloured. The boat rests on a stand of black lacquer with leaves, and conventional waves in gold. Height,  $4\frac{1}{2}$  in.; length, 1 ft. 10 in.

871. MINIATURE TORTOISE-SHELL BOAT IN FULL SAIL. *Chinese.*

872. MINIATURE TORTOISE-SHELL, house, or pleasure boat used on the rivers. *Chinese.*

873. MODEL OF OUTRIGGER BOAT IN WOOD.

874. CRYSTAL BALL, on stand inlaid with gold. Presented to Lady Brassey by the King of Siam. These balls are often used for necromantic purposes.



875. CRYSTAL BALL, presented to Lady Brassey by the King of Burmah.
876. IVORY MODEL OF FRIGATE, made by French prisoners of war in England at the close of the 18th century.
877. MODEL OF THE "FAIRLOP SHIP." Mounted in colours, and used in the former annual procession on "Fairlop Fair day."

An extract from the 'Book of Days' supplies an amusing account of the details connected with the ceremony. This exhibit commemorates a custom now fallen into desuetude, of which the following is a very brief account:—

"In Hainault Forest, Essex, there grew a very old oak, 36 feet in girth, destroyed by fire in June 1805. Under this tree, for many years, an old ship's block and pump maker, one Daniel Day, living at Wapping, commonly known for his general suavity and kindness as 'Good Day,' used to invite his friends and fellow-craftsmen to partake of some 'beans and bacon' on the first Friday in every July. This became such a recognised custom that for years many unbidden guests presented themselves, on whose behalf many vendors of food appeared, with shows, till at last a fair was regularly established.

"Before the death of 'Good Day,' which took place in 1767, his friends in the trade, some thirty or forty in number, used to go down from Wapping and the Minories in a ship's boat mounted on wheels, drawn by six horses; this afterwards developed into a *full rigged clipper ship*, of which this is a model, dressed in holiday gear, with flags and ensigns. Of late years, prior to the cessation of the fair, only a large boat, a ship's launch, about 40 feet long was employed. This procession came down the Whitechapel Road to the Minories where it dissolved. The fair was finally abolished some ten years since."

- 878 to 883. VERY FINE NATIVE CARVINGS OF PIPES, made by the Comox Indians of Vancouvers Island.
884. SHELL OF NAUTILUS POMPILIUS, polished, mounted on stand, and beautifully engraved with the coats of arms of City Companies, and a representation of St. George and the Dragon, executed with a penknife by an Englishman in 1850.
885. MOORUP EGG. *New Zealand.*

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886. EMU EGG. *Australia.* Mounted as a vase.

The Emu or Emui, of the family of the Cassowaries, is a bird common in Australia, it lays its handsome, dark green, rough-shelled eggs, in a shallow pit scraped in the ground; they are hatched by the cock bird; the period of incubation lasting from seventy to eighty days.

887. Pale coloured. Ditto, partly repaired.







## ANTIQUITIES IN CYPRUS.

A SHORT DESCRIPTION OF THE COLLECTION OF ANTIQUITIES FROM EXCAVATIONS MADE FOR LADY BRASSEY AT CYPRUS.

**T**HE collection of antiquities from the island of Cyprus is the result of some excavations undertaken for Lady Brassey in the course of the year 1884. The objects received up to the present time comprise about three hundred and twenty pieces of Roman pottery, including vases of various kinds, lamps, and figures or fragments of figures; over a hundred examples of glass vessels (mostly of the kind known as *unguentaria*), with a number of other smaller objects in glass; several ear-rings, pendants, fragments of funeral wreaths and small objects in gold; one or two engraved gems and an Assyrian cylinder; seven pieces of silver work; one of lead; about forty bronze fragments, and three iron.

There is considerable difficulty in determining the date and precise origin of objects of ancient art in Cyprus, and this difficulty is for the moment somewhat increased in regard to Lady Brassey's collection, from the fact that we are not at present in possession of sufficient details, concerning the actual spots where the pieces have been found and the precise circum-

stances attending their excavation, to enable us to form more than a general opinion. This information will shortly be supplied and will materially assist in the compilation of a catalogue *raisonné* which is now being prepared. Some little general observations may, however, be made to serve as a short guide to the collection.

The island of Cyprus is situated at a little distance from the southern coast of Asia Minor. Few countries have had a more varied and eventful history, few have been subjugated and held by so many different peoples, and yet our knowledge of its history, down at least to the Christian era, is of the vaguest description. As in some other countries, in Etruria, in Greece, or in eastern Russia and the Greek settlements in the Crimea, the excavations in tombs and buried cities come in to supply to some extent what the pages of history fail to afford us; and in the results of the excavations made for Lady Brassey we have much which is of use to illustrate not only the possible history of Cyprus, but also as forming links in the history of art generally. A remark by Mr. Gladstone, in a letter which appeared in the daily papers a short time ago, refers to the importance of such collections as the one we are now noticing. He said, "the gradual building up of primitive history is, in my eyes, to the full as interesting and as fruitful a process as the extension of physical sciences, which attracts a thousand-fold more attention."

While so much is still vague or shrouded in utter darkness concerning the ancient inhabitants of the island of Cyprus, we must be content to note in general terms that it is most probable that some time previous to the sixteenth century B.C. a section of the Pelasgic tribes who peopled the west coast of Asia Minor from Lycia to the Troad emigrated to Cyprus, and formed the nucleus of its earliest civilised population. Next to them came the Phenicians, who founded some important



towns, and later on, about the time of or after the Trojan war, came the Greeks, who seem to have driven out the Phenicians and to have divided the island into ten independent though probably confederate states. From time to time in succeeding centuries Cyprus fell for longer or shorter periods under the dominion of Syria, Egypt, and Persia ; and under the native Greek king Evagoras and his successors, who ruled thus over Salamis from 410 B.C. to 332 B.C. the island seems to have enjoyed comparative rest and considerable prosperity. At the end of that period it acknowledged the sway of Alexander the great, and after his death became the subject of dispute between Ptolemy Lagus and Antigonus, the former prevailing, and the island becoming about 295 B.C. an Egyptian dependency until it was declared a Roman province in 60 B.C. On the division of the Roman empire it became part of the Byzantine province and was governed by dukes, the last of whom was Isaac Comnenus. In 1191 Richard Cœur de Lion made the island over to Guy de Lusignan, and the Lusignan dynasty lasted for nearly 350 years, when the government was ceded to the Venetian republic, under which it remained until conquered by the Turks in 1571. The story of its connection with the British empire is a matter of the most modern history.

The custom of burying with the dead the ordinary things which men used during life is of very high antiquity ; reaching back to the earliest ages of the Greeks, who themselves may have borrowed the custom from Egypt. Thanks to it we find in tombs nearly all the details of the social life of ancient days—manuscripts, paintings, objects of worship, *ex voto* offerings, dresses, ornaments, money, jewels, musical instruments, furniture, vases of all kinds, toilet necessaries, mirrors, lamps, domestic utensils, toys, arms, horse trappings, even fruit and nuts and wine ; in fact, things of all descriptions in gold, silver, bronze, iron, glass, stuffs, ivory, wood, etc. From these we



are enabled to gather almost the entire story of the manner of life of the ancients. And besides domestic articles, objects in gold of great beauty abound.

In pursuing the study of the objects found in these tombs we must remember not only the occupation of the island by so many different nations, but also the different influences which had already had an effect on the arts of these several peoples before their arrival as colonists or conquerors; and we shall be certain to find not only objects of native manufacture which will show the influences exerted by the invaders, but, besides these, objects which they brought with them or which were subsequently imported in the ordinary course of civilization and commerce. Few things are more instructive or interesting in the history of art. It will suffice to mention as examples first what is very beautifully illustrated in this collection, viz., the history of glass and the connection of the Phenicians with Egypt, from which they probably derived their knowledge of the art; at the same time we cannot pass without notice the Assyrian influence on Lycian art by the Persians, who introduced the religion and arts which they had received from Assyria, which thus passed on to Cyprus from the mainland of Asia Minor.

The excavations made for Lady Brassey are for the most part in one tumulus (or collection of tombs) in the neighbourhood of Kurium. It must be remembered that these tumuli formed the burying places of many succeeding generations of inhabitants, and we are therefore prepared to find, as we do, in this collection (although it comes from a limited area) objects ranging from pre-historic times, from the archaic Phenician and Greek periods, down to the time of the Roman occupation, and possibly even past the commencement of the Christian era. Until a proper classification of the vases and other objects in pottery has been completed, it must suffice to say that the



greater number of vases must be ascribed generally to the Phenician and early Greek times. These vases are of a different character and style of decoration from those we find in Etruscan tombs, in Greece and the Crimea. They belong to the oldest period of the art, and have considerable resemblance with those found in Rhodes and Ialyssus, of which such a fine collection exists in the British Museum. Vases of good form decorated with plain bands, rings, circles, and geometrical designs, are of the period of early Greek influence. Probably the most ancient are those on which there is no decoration, a simple incised ornament or merely corrugations. Many of those which are painted are of a kind which is peculiar to the pottery of Cyprus, viz., decorated with concentric circles, annulets, and geometric designs in a brownish colour, probably made with "terra d'umber" which is found in great abundance in Cyprus. It will be especially noticed that these designs are very generally placed vertically on the sides of the vase instead of surrounding it, a fashion which is distinctly antagonistic to the purity of Greek art. The geometric arrangements in browns, red, or black, on the simple grey clay ground, are associated with Egyptian methods on the one hand, and with Phenician and Assyrian on the other. Where we find more beautiful forms and ornaments we are evidently in presence of later Greek influence.

Two very large *hydria*, or water jars, which were sent to Lady Brassey by Colonel Warren, are probably the largest specimens known of Cyprian pottery. Besides these there are a large number of amphoræ varying in size from two or three feet in height to a few inches, and vases of various shapes illustrating, amongst others, the forms known as the krater, oinochoe, lekythos, aryballos, kantharos and kylix. Some of these are of the remarkable and somewhat rare kind having figures on the handle or spout, sometimes (as is often seen in

Greek vases of fine style) a female figure holding a smaller vase which leans on the shoulder of the larger one and forms the spout.

The greater number of the terra cotta lamps are of late Roman and Greek times, the earliest being the very simple unornamented ones like a small flat circular saucer with a portion pinched out to form a spout or place to rest the wick upon. Many are impressed with various designs which will prove of interest when more particularly described, and two or three have inscriptions with the names of the makers in Greek characters.

An extremely interesting object amongst the pottery is a small two-handled bowl or vase impressed with a pattern of leaves in relief and glazed with a green glaze. It is Roman, probably about the end of the republic, and is itself of a rare kind. But what adds to the interest is that the decomposition of the green glaze has produced a beautiful pearly iridescence, so much so that at first sight, and without handling the piece, it is difficult to be persuaded that the material is not rather glass than pottery. One is tempted to imagine that in the green glazed ware of this class, the Romans endeavoured to produce the effect of silver; in this case it is left for us, two thousand years later than their time, to see it as they would have wished to see it. Such an example of iridescent glazed pottery is extremely rare, if indeed it could be matched at all.

The specimens of ancient glass in this collection are of great interest. There are a large number of pieces, and several are of uncommon beauty and rarity. The greater number of specimens belong to the class known as unguentaria, sometimes erroneously termed lacrymatories, from their supposed use as receptacles for the tears of the sorrowing mourners. These are of various shapes, from a form approaching the lekythos



(of which we have also here numerous examples in pottery) to that which resembles somewhat a tall candlestick. In the latter the neck becomes more and more drawn out and narrower, and the body diminishes until at last it is spread out into an almost flat base with a very long narrow neck. This shape is probably the least common, and the specimens before us seem taller and larger than the majority of those we find in the extensive collection of glass in the British Museum. Many other specimens are small vases, probably for containing precious ointments for toilet use, in a variety of shapes such as urns, jars, bottles, acetabulæ, cups, and tumblers. Some of the jars are made to have covers or lids, and there are some dozen or so of the latter of which three or four are of a most rare kind, that is to say, with traces of decoration painted in colours. These will demand more careful description in the catalogue now in preparation. They are of the time of the Ptolemys, or perhaps of the Roman domination. A cup or jar is of a fine deep blue colour, well preserved, without decomposition.

The greater number of these pieces of ancient glass are remarkable for the fine description of iridescence produced by the lapse of time. Many of them are extremely beautiful, with a wonderful play of colour as they are viewed in different lights. Some show a perfect galaxy of nacreous hues and flashings of colour; gold, opal, blue, purple and pearl, have resulted from the slow decomposition of the surface of the glassy material.

The iridescence of glass is the effect, after ages of interment, of the gradual decomposition of the substance, especially when it has been covered with earth, or when it has contained a liquid which has afterwards hardened. In the former case the material becomes flaky and extremely brittle and tender, so much so that it can scarcely be handled without risk of falling

to pieces : in the latter (and this is of more rare occurrence than the former) it is converted into granular particles, giving the surface a sandy appearance like very porous earthenware. Glass vessels are, however, often found in ancient tombs as brilliant and pure as when they were first made, and quite well preserved ; in other cases, although they appear to be so when first exposed, they fall into fragments on contact with the external air.

Besides the unguentaria there are one or two specimens of the early Phenician glass, made perhaps at Tyre by Phenician workmen. Throughout the collection of glass it is very difficult to distinguish the different origins ; the styles mingle and overlap very much. Phenician glass is very like that of Egypt, whence the first named probably received the art. In these the prevailing colour is a deep blue with wavy lines of colours. We have an example in a beautiful little amphora-shaped vessel, the body of which is so decomposed into granular particles that it can scarcely be handled without detaching portions. The elegant handles have naturally been less affected, and appear to be of a dark orange colour. Another instance is one of the long narrow vessels termed an alabastron. It is also ornamented with wavy or zigzag lines, and has (what is somewhat unusual) two very small handles or rings near the top. The uses of both were probably for precious ointments or essences, although the one is quite of the shape of a small wine-jar. We have also some hairpins of glass, which are rare. Two of these have a ring at one end and a flat disk at the other, in fact quite like a modern toddy-stirrer or sugar-crusher ; the other (which is the most uncommon) is style-shaped, with spirals, and of a deep orange colour.

An example of Roman glass is a small bowl or saucer of the kind called madrepora, made up from canes of glass containing coloured twisted threads.



The gold objects consist of a frontal of the kind used for placing on the foreheads of the dead, of many fragments of leaves of funeral crowns (some lightly embossed), or of the thin gold leaf which sometimes appears to have covered the face like a veil; of ear-rings and pendants, beads, and portions of necklaces, etc. The flat lunette-shaped ear-rings (two of which, given by Colonel Warren, were already in the collection at Normanhurst) are of an early age. One of these appears to be unfinished or prepared for enamelling, the *cloisons* for the enamel representing grapes and leaves; but all traces of the enamel are wanting, or perhaps it was never completed. Another is a ram's head terminating in a cable of fine gold wires, which diminishes in diameter to its point, where it passes into a ring under the ram's head. Others are of a simpler and more common kind—a mere twist of wire—and one (the rarest) is a rosette formed of intersecting segments of circles, set in the centre with a green stone or coloured glass. A tiny vase with two little handles is probably a pendant of a necklace, and perhaps contained perfume.

The objects and fragments in bronze, lead, and iron, are Greek and Roman, and for the present need not be particularly described.





## APPENDIX.

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DESCRIPTION OF A COLLECTION OF GOLD  
ORNAMENTS FROM THE *HUACAS* OR GRAVES  
OF SOME ABORIGINAL RACES OF THE  
NORTH WESTERN PROVINCES  
OF SOUTH AMERICA.

BY

BRYCE WRIGHT, M.A.I., F.R.G.S., F.R.Hist.S., ETC.





DESCRIPTION OF THE GOLD ORNAMENTS FROM  
THE *HUACAS* OR GRAVES OF SOME ABORI-  
GINAL RACES OF THE NORTH WESTERN  
PROVINCES OF SOUTH AMERICA,  
COLLECTED BY  
LADY BRASSEY.



THE very interesting collection of gold antiquities from the north-western provinces of South America formed by Lady Brassey is certainly one of the most representative in this country. It includes not only a large series of personal and religious ornaments, illustrating the perfection to which the goldsmith's art was carried by the Indians, but contains also specimens of the various rarer implements, such as celts and chisels (all in the precious metal), which are not usually to be met with even in collections formed in the immediate vicinity of the graves themselves.

No class of objects is more obscure in their origin or history than the ornaments and implements used by the ancient Indians of Antioquia, Cauca, and Boyacá, which are the three states (forming a portion of the new republic of the United States of Columbia) from whence the whole of the specimens of this collection were procured. They extend from one de-



gree north latitude to the eighth parallel, and are bounded on the west by the Pacific Ocean.

In our investigations of the antiquities of the old world we are assisted to a very great extent by the more or less perfect system of writing, either hieroglyphical or in more distinct characters. Hieroglyphics were used in Mexico, but in this region no such system of recording events was practised. Although in one part of Antioquia, near Titiribe, some concentric and single circles with dots in the middle have been found carved upon groups of stones, still there seems to be no analogy between them and the tribes under consideration, such sculptures being found miscellaneous spread over different parts of America. Probably all these belong to another distinct race. These peoples did not even make use of the *Quipus* or *Quipos* of the Peruvians. These *Quipus* were threads or fringes knotted in various ways, but the meaning which they were intended to convey was generally understood only by those who made them, and not always even by them. It was like the practice resorted to nowadays of tying a knot in one's handkerchief—the knot is found, but, alas! what does it mean?

The authorities, it seems, discountenanced any attempt to record their history. We are thus thrown back upon uncertain traditions, and the information that could be gathered by the Spaniards at the time of their occupation.

There seems to have been a considerable difference between the inhabitants of the north-western States of South America and those of Mexico, the latter possessing many elaborate sculptures, whilst the former seem to have sedulously discouraged their erection. The ruthless and barbarous character of the Spanish invasion no doubt caused a great destruction of the few contemporary monuments that might have thrown farther light upon their social, religious, and

political history ; while to that greed of gold, and the cruelty and recklessness which seem ever to accompany it, we probably owe much of our present ignorance and inability to interpret the ideas which are symbolized in the curious ornaments and images represented in this collection.

The population of the country in former times was simply enormous. Mr. R. B. White<sup>1</sup> states: "It may be safely reckoned that the population of Cauca and Antioquia was not less than 2,000,000, and was more likely 3,000,000." One little state, that of Pacora, mentioned several times in the following catalogue, provided at one time a contingent of ten thousand men to fight the Spaniards. The country was divided up between many tribes, all of whom were cannibals, and of a very low type of civilization ; and yet these were the makers of such beautiful objects ! With customs quite distinct, tribes seemingly complete in themselves, and speaking different dialects, occupied patches of ground only a few miles in extent, into which incursions were always being made by one or the other, so that their lives were spent in continual warfare.

Between the mountainous districts of the Cordilleras and the sea coast, on the Pacific side, the country presents immense varieties of soil and temperature. Near the sea, on the lowlands, the heat is very great ; but on the sides of the mountains and the elevated tablelands it is temperate. Above are the forests, containing many wild animals. It may be supposed that with such variety, corresponding to so many degrees of latitude, that portion of the human family inhabiting this district would present corresponding differences : hence we see that in the temperate parts a larger amount of average intelligence seems to prevail, such as in Antioquia,

<sup>1</sup> "Journ. Anthropol. Inst.," vol. xiii., No. 3.



where it is about fifty degrees. On the Pacific coast rain seems to be incessant, as it also is in the Atrato Valley and River San Juan. The tribes of Antioquia were the only ones in the districts under consideration that buried their dead in *tumuli*, surrounding them with their arms, implements, &c., in a similar manner to the northern nations; and in the case of rank or wealth, with pottery, as well as the whole of their weapons, ornaments, and other insignia in gold. The majority of the graves were rifled by the Spaniards, who melted down, without a thought of their antiquarian value, gods, ornaments, and implements, simply for the metal. Many of these *Huacas* contained ornaments of immense value, amounting, according to some authorities, to as much as £4,000, £8,000, and £13,000 respectively; so it is no wonder they were assiduously sought after.

The Indians were rather a short people, averaging from 5 ft. 6 in. to 5 ft. 10 in., with well-knit, muscular frames, but of slender make. The women possessed beautiful dark expressive eyes and good figures.

The gold was procured from quartz lodes; and, considering that the Indians only used stone implements, instead of gunpowder, as nowadays, it is marvellous that they worked so efficiently. It was procured nearly always by sinking shafts, not by driving galleries; and they very seldom searched for it in the washings of the rivers. That they were great adepts at working the gold when procured, a glance at Lady Brassey's collection will show.

By many of the natives of Columbia it was supposed that the Indians were in possession of some great secret which permitted them to render the gold soft like putty, and then harden it. This was in consequence of finger-marks being seen on the ornaments, which must, however, have existed in the moulds of clay.

It seems also that they not only knew how to work the metal into wire or drawn gold, but to plait it so beautifully as to compare even with the goldsmith's work of the present day.

They appear to have thoroughly understood melting and casting into moulds, hammered and *repoussé* work, and soldering, the solder being itself of gold (see description of deities, figs. 4 and 5).

In casting, a model was first made in some plastic material resembling wax. On this a mould (probably of clay mixed with sand) was pressed. The whole being heated in the fire, the wax ran out, leaving the empty form to receive the molten metal. This process has been well known amongst ourselves and is called *à cire perdue*.

Until lately it has always been a matter of conjecture in what way many of the gods (such as figs. 14 and 15) were produced. This has been explained through the discovery in a collection of gold ornaments from about the same locality, in the possession of Mr. W. Copeland Borlase, M.P., of some gods, standing in relief on hard Lydian stone (a variety of quartz, known often as "Touchstone"). These bas-reliefs have evidently been used as moulds, a plate of gold being heavily pressed on the raised surface, forming thus a kind of intaglio. This is shown by the back of each gold figure. Other metals were obtained, such as silver, copper, quicksilver; but none of them were worked to a great extent.

Gods, ornaments, &c., are occasionally found in copper, but very seldom—gold being always the favourite metal. The tools used for their mining and agricultural purposes were always of stone, the material being generally of volcanic origin. Nose ornaments have, however, been found of jade, which must have been imported from China or New Zealand.

The *Huacas* (graves) which are scattered indiscrimi-



nately over the country, seem to have all been made upon a similar plan.<sup>1</sup> "A dry, elevated ridge, composed of easily excavated material, was selected as the cemetery. A pit of only a yard or so in diameter was sunk, sometimes vertically, sometimes at an angle, or sometimes varied from vertical to inclined. It was sunk to depths varying from fifteen to sixty feet, and at the bottom a chamber was formed in the earth. Here the dead was deposited with his arms, tools, cookery utensils, ornaments, and chattels generally, with maize, and fermented liquor made of maize."

The question which naturally strikes an inquirer is from whence are these Indians derived, and in what manner has America been peopled. The question is naturally one of the greatest interest, and has been answered in many ways. There can be no doubt that America was inhabited by races with considerable civilization, long before the advent of the tribes who governed them during the periods of which we have any knowledge. The great encampments and trenches found in the cold regions of the North, extending through Mexico into Peru, the sculptured stones, the large stone statues near the Magdalena River in South America, and other remains, all point to races in advance of the small and feeble Indian tribes who have since occupied the land. Many propositions have been advanced. The American antiquary Delafield considers that the ancient inhabitants of North America, Mexico, and Peru were derived from the Old World, tracing them back to the shepherd kings of Egypt, who, he says, migrated northwards, and whose descendants gradually passed into America through Behring Straits, and ultimately spread through the continent. Undoubtedly there are resemblances to be traced between some of the religious beliefs and other

<sup>1</sup> R. B. White, "Anthropo. Inst. Journ.," vol. xiii., No. 3.

customs of the Old and New Worlds, especially those having relation to the solar worship; but it is questionable whether such resemblances are not to be traced to the general tendency towards religious belief in mankind, the presence in both hemispheres of the sun and moon, and the beneficent influence of the solar light and heat, which lead man to look up to the sun as the best and most prominent object for worship, thus causing many independent centres of a religion having a similar object. Again, it is supposed that the aborigines of America came from Asia by way of the Pacific Isles, and there are many indications, by weapons and ornaments, supporting this. Others were wafted by the trade-winds "from the Canaries and the Pillars of Hercules; and we know that parties arrived from Norway and Iceland, as well as from Siberia, and the land of the frozen Tundra."<sup>1</sup>

These hypotheses all seem to have some evidence in their favour; but it certainly appears that, as there were undoubtedly great centres of civilization and an independent development in the New World, it is to America, and America only, we must look for the origins of its civilization.

The Indians of Columbia seem to have possessed a religion distinct from that of the more enlightened Incas proper of Peru—in fact, they possessed in the strictest sense a native and original religion, and all attempts to connect it with any earlier faiths in Asia or Europe have completely failed. Their deities seem to be somewhat similar in many instances to those of the Incas, and also to those of the Mexicans.

They possessed one god—that of the wind—under the names of Cuculcan, Hurakan, Gucumatz, and Volaū, who seems to correspond with the Mexican god Quetzalcoatl, the "feathered serpent" or the "serpent bird." They also evi-

<sup>1</sup> Markham's "Cuzco," p. 202.



dently worshipped the condor, as may be seen by the specimens (figs. 1, 2, and 3), as well as nearly all the striking animals (reptiles and fish) of their country. Above all stood their worship of the heavenly bodies, analogous to the sun-worship of the Incas, but springing from a distinct original source, the outcome of a natural superstition.


Before describing in detail the interesting antiquities made by the tribes who have been the subject of these introductory remarks, thanks are due particularly to Senor Leocadio Maria Arango of Medellin, who wrote a long letter relating to these particular objects, and furnished the precise localities from which they were procured. A paper recently read by Mr. R. B. White before the Anthropological Institute upon the tribes of the same districts has also been of value.





tribes in the vicinity of the Andes. The piece consists of a graceful pedestal,  $6\frac{3}{4}$  inches in width at the bottom, and about half that width at the top, upon which are three condors with feet. Each bird has a deity mounted upon its head, and upon both sides are similar gods mounted upon a kind of scroll forming portions of the pediment. These figures may be the representatives of the enshrined deity, the head-dress on each representing the sun. The pediment has been hammered out, the gods cast, and then soldered with gold. At the feet of the condors is a band formed by two bars of gold, about the eighth of an inch apart, the space between ornamented with double oblique lines and circles, the latter indicative again of the sun. It is furnished with two hooks at the back for suspension, probably as an amulet. Originally it was well polished. (Fig. 1.)

2. IDOL. An idol dedicated to the condor. Actual size. Weight, 1 oz. 6 dwts. 20 grains. *District of Angostura, State of Antioquia.*

This is a similar religious ornament to No. 1, but with two birds' heads only. The birds have short legs and feet, resting upon the same shaped pediment as before. Senor Leocadio Arango describes the piece (as well as Nos. 1 and 3) "as being a Divinity of the greater Hierarchy." It is dedicated to the condor, but the symbol upon the heads of the birds is quite distinct from No. 1. This object is more interesting in one sense, as it possesses elaborate ornamentation, enclosed in a broad band at the top of the pediment, below the feet of the condors. The circle is naturally there, being common to all the tribes who worshipped the sun; and the incised lines running obliquely form a pattern known to both the Mexican and Peruvian types of ornament, as well as similar to several types observed upon pottery coming from Japan.<sup>1</sup> One of the most characteristic forms of ornament in Mexico and Peru was the well-known meander Greek-fret or key pattern; but apart from this there seems to be really no connection between the Old and New World ornamentation. The shape of the pottery of these regions is not unlike that of the Old World, more particularly that of ancient Cyprus. The fylfot symbol 

<sup>1</sup> "The Stone Age in Japan," J. Milne, "Journ. Anthropol. Inst.," 1881.

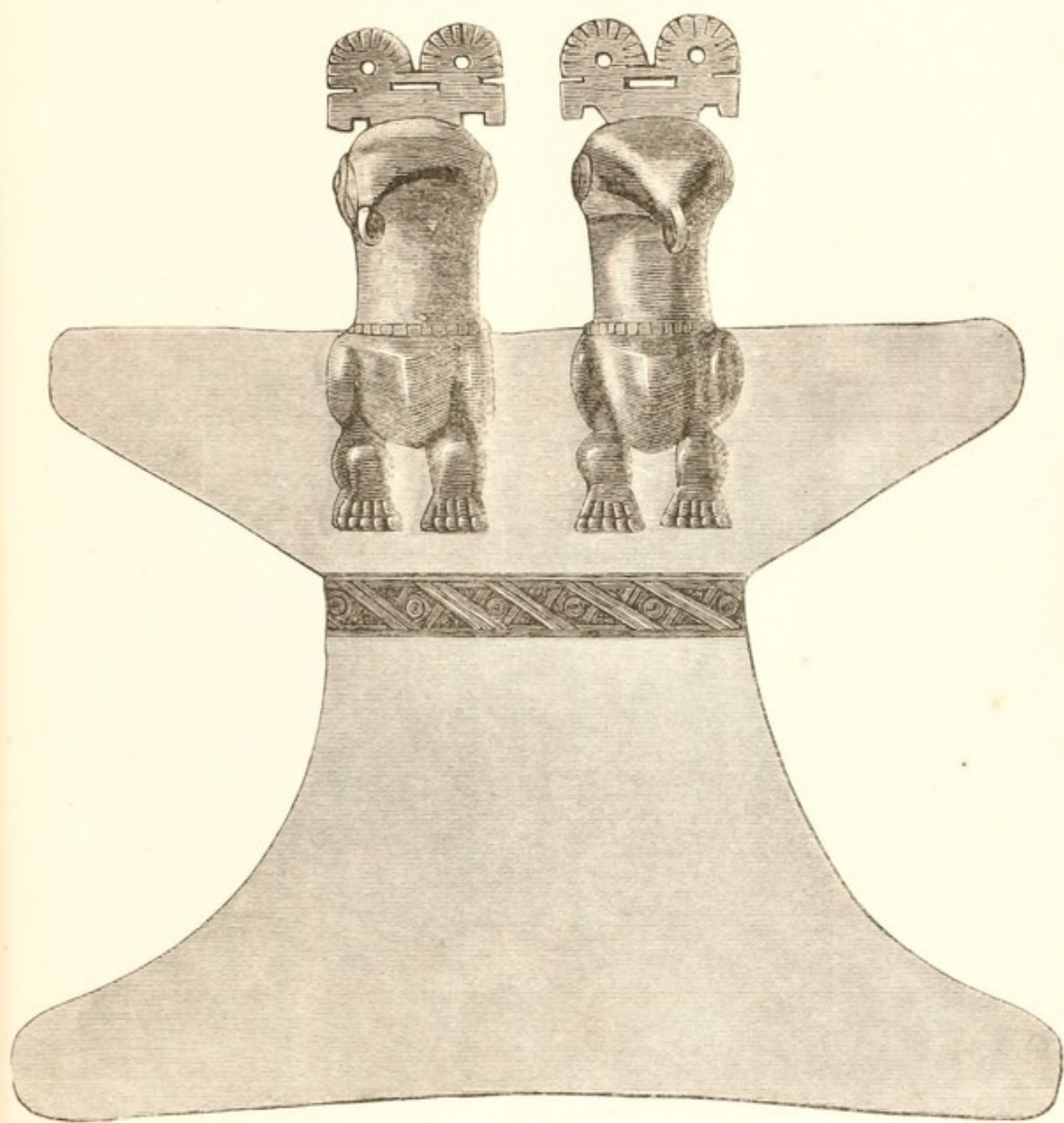


Fig. 2.



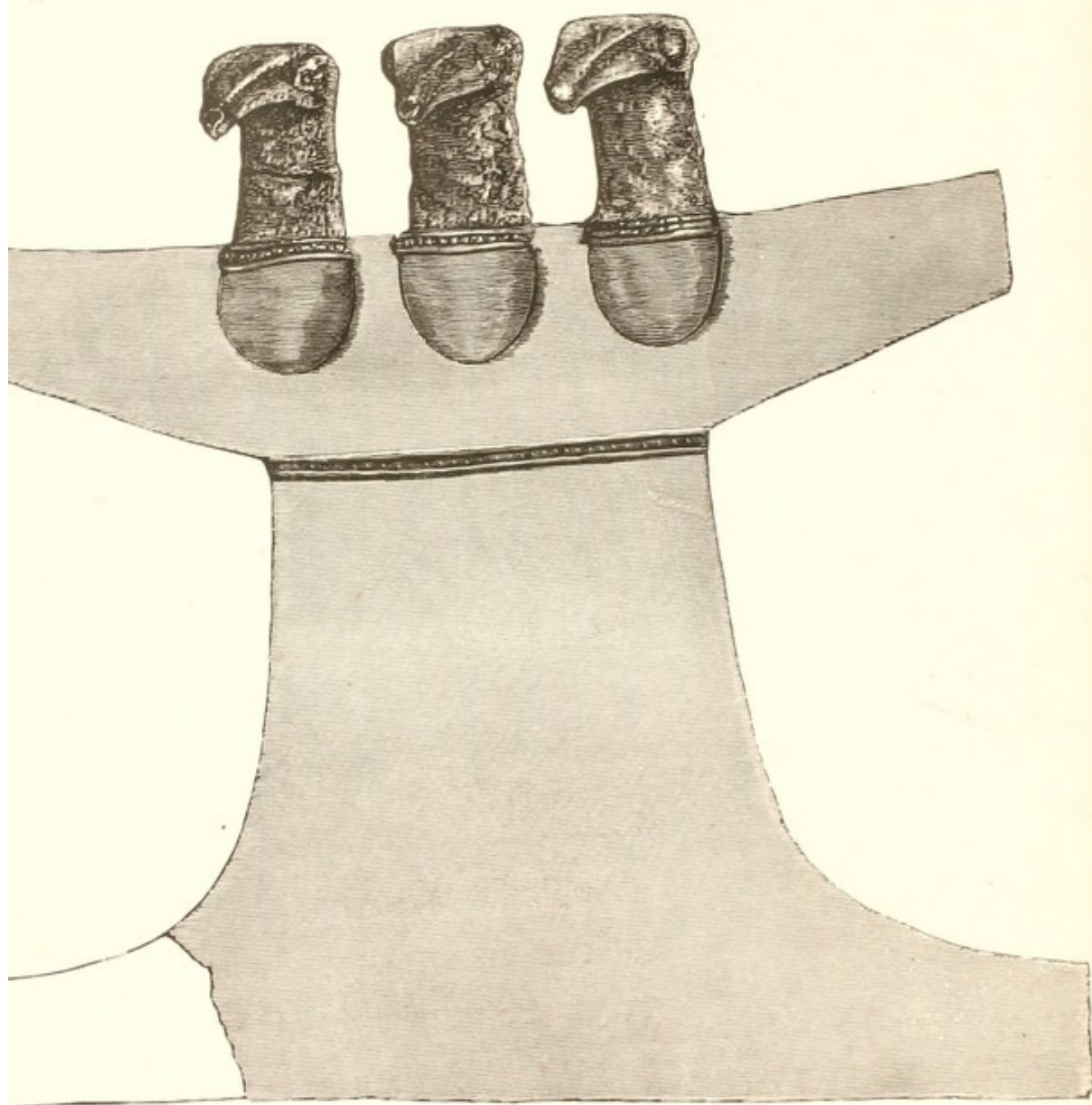


Fig. 3.

is quite unknown in the New World, and the cross is extremely rare in any form whatever. In the great collection of pottery formed by Mr. Copeland Borlase, M.P., numbering thousands of specimens, it is only once represented. The herring-bone ornament<sup>1</sup> is entirely wanting in Mexico and Peru, and the zigzag is comparatively rare. It is hardly necessary to point out the value of ornamentation upon such objects as these antiquities. They afford a clue or sequence to their probable derivation and development from other countries.

This object is the smallest of the three religious ornaments, but is the brightest, being well polished and in a high state of preservation, and is evidently made of purer gold, most probably of  $21\frac{1}{8}$  fineness—this percentage being the standard for gold ornaments of the purest description<sup>2</sup> from Central America. (Fig 2.)

3. DIVINITY IN GOLD. Three condors' heads upon a plain pediment. Height,  $5\frac{1}{8}$  inches; width at base,  $5\frac{3}{4}$  inches. Weight, 2 oz. 13 dwts. 6 grains. *District of Aguadas, State of Antioquia.*

This deity in a general sense resembles Figs. 1 and 2. It has three heads of the condor mounted upon a pediment, but no ornamentation, with the exception of two lines at the lower part of the necks of the birds, and similar ones at the top of the pediment, these lines enclosing another intercepted with perpendicular cuts, making it appear a simple cord. In this deity the condors have no feet, being rounded off from the neck. It has a ring at the back so that it can be worn as an amulet. The figures have been cast, and are hollowed out at the back and soldered on the pediment, which has been hammered out. (Fig. 3.)

- 4 and 5. DEITIES. In flat gold, representing human figures in a nude state. Natural size. Weight of No. 4, 8 dwts. 18 grains. Weight of No. 5, 7 dwts. *City of Funja, State of Boyacá.*

<sup>1</sup> See "Archæologia," vol. xlvii., R. P. Greg.

<sup>2</sup> "Bull. Amer. Ethn. Soc.," Oct., 1860, p. 21.



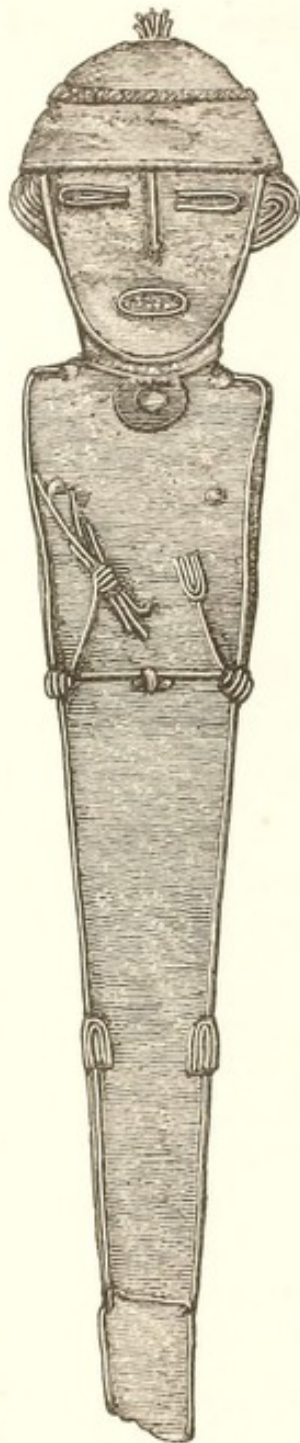


Fig. 4.

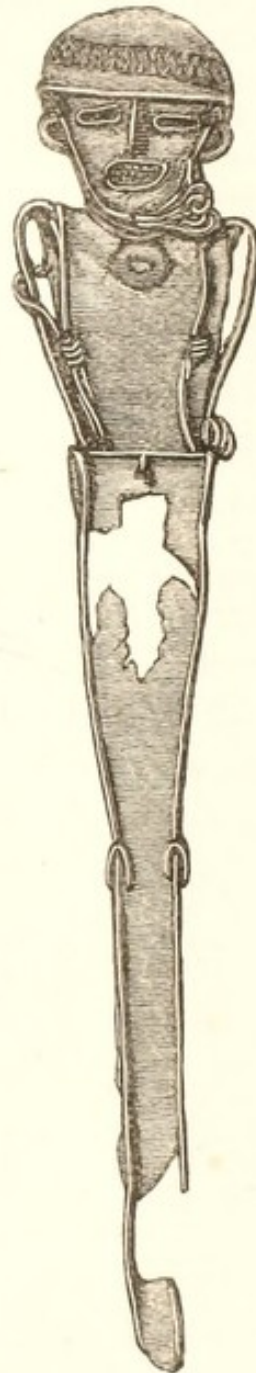


Fig. 5.

The above are two of the most remarkable objects in the collection. Both are of a bright yellow colour, and doubtless made of the purest gold. The mode of their manufacture is extremely

interesting. It is apparent that the maker has first chosen a flat piece of gold, which he has fashioned to represent the general outline of a body. He has then carried out his design by forming the features, hands, and head-dress with gold wire, which he has joined to the flat piece of metal by the aid of a primitive blow-pipe, the solder used being gold. This application of the blow-pipe is very interesting and deserves special attention. The work, although excessively rude, shows at a glance that the Indians of Boyacá were special adepts at goldsmith's work, and possessed a good knowledge of the art in its infancy. Both the figures are nude, with the exception of the heads. No. 4 is covered with a conical cap at the top of which is a tuft of radiating pieces of gold wire, representing, perhaps, the rays of the sun. The middle of the cap is ornamented with a horizontal band formed of crossed lines. The nose, eyes, mouth, and ears, as well as the outline of the face, are formed by a gold wire, and although so primitively made, there is a natural look about the features which is very striking. Round the neck of Fig. 4 is a ring or circle of gold, most probably representing the sun, not unlike many of the nose ornaments described under Personal Ornaments (see Figs. 38 and 39). The body tapers from the shoulders, the feet approaching each other. Below the feet, however, the plate of gold forming the body extends to some distance as if it were used for fitting into a socket or shrine. The arms from the shoulder to the elbow rest upon the body in a straight line with the outside wire, but from the elbow to the hand they are inclined across the chest. The right hand (Fig. 4) contains what looks like a bundle of sticks, but there is one ornament amongst them which was evidently a staff of authority. It is terminated in a hook at the top. In many of the deities in other collections this sceptre is to be seen, and is conspicuous in a series of similar gods in the collection of the Museum of Leyden, and that of Mr. Copeland Borlase. Happily two such staves are in the latter collection *separate*, and are worthy of special attention, leaving little doubt as to their significance, although they were probably employed as insignia of authority similar to the Jöey or Jade sceptre of China. The left hand is empty resting upon the breast. In Fig. 5 the right hand clasps also a similar sceptre, and the left holds a bird resembling a pigeon. The head-dress of this deity differs from No. 4 by having a more elaborate ornamentation crossing it. It is not so high and has no radiating tuft. This god has a similar circle of gold to Fig. 4 suspended round the neck. (Figs. 4 and 5.)





Fig. 6.

6. DEITY, in solid gold, probably representing the god of plenty. Natural size. Weight, 2 oz. 3 dwts. *Percira, State of Cauca.*

This god is quite different in shape and description to any of the previous, being very solid in character, and only about two inches in height. The deity's hands are placed upon his knees, and at his feet are two birds, probably pigeons, looking towards each other. Upon the forehead is a head-dress, representing feathers, which falls behind the back to the ground. On the top of this head-dress is another bird, and the sides of the deity, right and left, are supported by two columns, but what they indicate it is difficult

to define, as well as the true symbolism of the idol itself. It has evidently been made from a solid block of gold of the purest quality of  $21\frac{3}{8}$  fineness. Coming from the State of Cauca, it was made by one of the lowest and most degraded tribes of Central America. (Fig. 6.)

7. DEITY, of gold, of Yunca or ancient Incarial type, with remarkable head-dress. Natural size. Weight, 16 dwts. 4 grains. *District of Manirales, Antioquia.*

This god is of Yunca or ancient Inca type. One is struck immediately with its head-dress, representing a kind of horizontal cross, springing from the back of the head, which is square. This cross is composed of a series of spirals, emanating separately from its centre. The spirals are similar to many of the circular ornamentations upon the bronze implements of Scandinavia and Hungary, and are believed to represent the moon. The legs are bent, the hands bowed to the sides, and the body ornamented with dots or nodules of gold. The shoulders are similarly decorated; and round the neck are three rows of gold, forming a necklace. The face is of a repulsive description—the nose and mouth large, and the eyes very prominent. (Fig. 7.)



Fig. 7.

8 and 9. PRIMITIVE GOD AND GODDESS, in gold. Exact size.  
 Weight of No. 8, 5 dwts. 12 grains; No. 9, 6 dwts. 15  
 grains. *District of Cali, State of Cauca.*

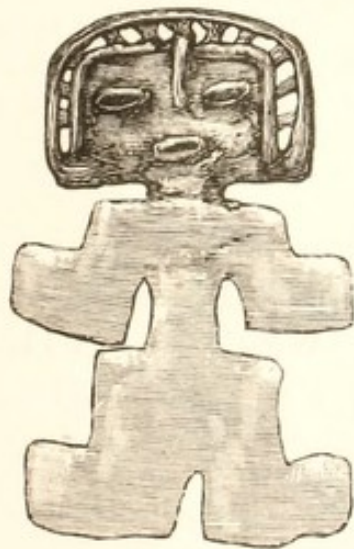


Fig. 8.



Fig. 9.

No. 8 is of a rude and primitive type, and is not unlike the devil  
 gods which schoolboys draw upon their slates—the arms, legs, and



head forming the principal part of the figure, whilst the body is nearly ignored. It has evidently been hammered out; the nose, eyes, and mouth formed of gold wire, as in Figs. 4 and 5. The head is square in shape, ornamented with a simple gold wire, attached as it were by spokes, which were evidently added, with the wire forming the features, after the body was made.

The gold is not of a high quality, and is mixed with copper. This figure, which is truly hideous, represents the god, whilst No. 9 represents the goddess, who is, if possible, still more frightful in appearance. The face is large, with round protruding eyes, and a very big mouth. The head is decorated with radiating pieces of gold, representing probably the rays of the sun. It has been cast in a mould, and then hammered. Both figures were made by the abhorred and depraved tribes of the State of Cauca. They are provided with loops at the back to be strung on the person. (Figs. 8 and 9.)



Fig. 10.

10. SMALL SOLAR GOD, in gold. Actual size. Weight, 1 dwt. 16 grains. *District of Aguadas, Antioquia.*

This miniature god is evidently dedicated to the sun, the head-dress suggesting the solar rays. It has been beaten out, the nose, eyes, and mouth formed by simple nodules of gold, raised by hammering the metal at the sides. (Fig. 10.)

- 11, 12 and 13. GODS OR IDOLS, in gold, used for stringing into necklaces. Exact size. Weight of No. 11, 2 dwts. 22 grains; No. 12, 6 dwts. 4 grains; No. 13, 3 dwts. 12 grains. *District of Pácora, Antioquia.*

These deities have been cast, and then hammered. They are hollow, and have hooks at the back for suspension. (Figs. 11, 12, and 13.)



Fig. 11.



Fig. 12.



Fig. 13.

- 14, 14A. GODS OR IDOLS, in thin gold, used for making into necklaces. Weight of the pair, 20 grains. *District of Angostura, Antioquia.*

These have been made in the manner referred to in the introductory remarks, viz., by being placed upon a raised surface, representing the deity, made of Lydian stone, and then heavily pressed. The gold is very thin, so that the impression is easily made. (Fig. 14.)



Fig. 14.

- 15 and 16. GOLD ORNAMENTS, representing deities of two birds' heads with a single body. Weight of pair, 2 dwts. *District of Supia, State of Cauca.*

These are the ornaments dedicated to a bird, and held in reverence by the tribes of Cauca. They are produced by pressure, in the same manner as No. 14. Many specimens were made, and then strung and used as a necklace. (Fig. 15.)



Fig. 15.





Fig. 16.

17. FROG, in gold. Worshipped by the Indians. Cast and then hammered. Weight, 3 dwts. 16 grains. *District of Pácora, Antioquia.*

The gold of which this is made is very pure. The frogs found in Central America often have balls of the precious metal in the eye-cavities, which produce a rattling noise. This specimen has been cast, and the legs then hammered out to produce the length they now assume. The frog is regarded as the symbol of rain and harvest; but a special god, called the "Guesa," is the great harvest god in Central America. (Fig. 16.)



Fig. 17.



Fig. 19.

- 18, 19, 20. THREE ANIMALS, in gold, worn as charms. Actual size. 18 from *District of Supia, State of Cauca*. 19 and 20 from *District of Manirales, Antioquia*. Weight of No. 18, 7 dwts. 10 grains; No. 19, 6 dwts. 8 grains; No. 20, 2 dwts. 16 grains.

It is extremely difficult to define what mammal these animals are supposed to imitate. The legs are those of frogs, but the heads are quite different, whilst they all possess curled tails. They most probably are imaginary animals, and were worn as charms.

No. 18 is of the purest gold, Nos. 19 and 20 being alloyed partly with copper. They have all been cast, and then hammered. The backs of each are differently ornamented, to represent the vertebræ. (Figs. 17, 18, 19.)



Fig. 20.



Fig. 21.



Fig. 22.

21, 22, 23. IMAGINARY ANIMALS, resembling something between a dog and a squirrel. Weight of No. 21, 1 dwt. 12 grains; No. 22, 20 grains; No. 23, 4 dwts. 10 grains. *District of Angostura, Antioquia.*

(Figs. 20, 21, 22.)

24. AN ANIMAL, in gold, something like a dog. There is no woodcut of this, but it is very like Fig. 22. Weight, 1 dwt. 4 grains. *District of Manirales, Antioquia.*

25. WINGED GOD, in gold, with rudder-like tail. Weight, 5 dwts. 12 grains. *District of Pácora, Antioquia.*

This remarkable mythological deity resembles a flying fish. The wings are particularly well ornamented, as also is the tail, which is very deep, in the shape of a rudder. The eyes are prominent, in a pointed head, with teeth like a shark.

The gold is alloyed with copper. (Fig. 23.)



Fig. 23.



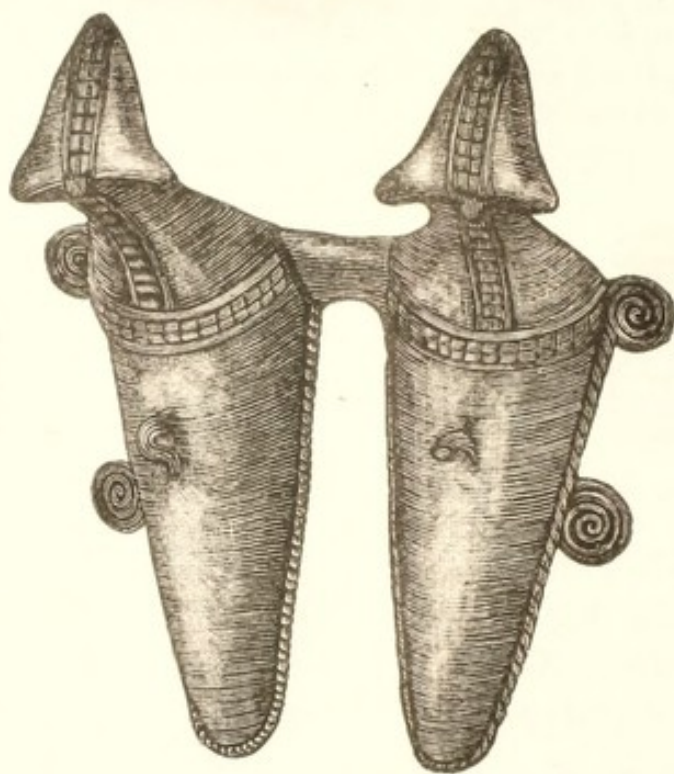


Fig. 24.

26. TWIN MYTHOLOGICAL GOD, in light coloured gold. Exact size. Weight, 1 oz. *District of Riosucio, State of Cauca.*

This represents a twin mythological animal used as an amulet and strung round the neck with other objects, for which purpose it is furnished with hooks on the breast as well as upon the back. It is really difficult to define what animals are meant in this object. They are soldered together at the bottom of the neck, and are well ornamented. Lines run from the head to the back, where they are met by other lines crossing the bodies, at the extremity of which are two spiral ornaments. Round the whole outline of the lower portion of the body is a single twist of gold wire, and near the end of the body are two other similar spirals. The bodies are hollow. (Fig. 24.)

27. BIRD UPON A STAFF, in bright gold. Weight, 1 dwt. 8 grains. *District of Manirales, Antioquia.*

This is one of the household gods similar to the Canopas of the Peruvians, and was worshipped by some family who, believing in the guiding providence of God, prayed to it as an intermediary in the cares and duties of life. As the Romans prayed to the gods of their homes, Lares and Penates, the Greeks to their deities of the wood, the forest tree, and the fountain, so these Central American Indians prayed to their *Huacas*, or family gods. Nearly all the families, villages, and districts possessed their own separate miracle-working idols, and these were mostly, in this country, of gold.

It is of the purest metal, in colour like the Australian sovereign. The stem has a small notch half way up to serve as a stop, presuming the lower part to have been dropped into a small hole at a shrine. The bird, which Lord Northesk thinks is a pigeon, is very beautifully and artistically made of gold wire. The head and body are graceful, and the whole object has a spirit of life in it which is very realistic. Under the bird is some twisted gold wire probably representing a cord. (Fig. 25.)



Fig. 25.

## IMPLEMENTS.

The Collection, although not containing many implements, is extremely rich in possessing examples of chisels; No. 28 particularly being a type quite unique in the precious metal. In their mining operations the Indians used solely stone implements, and although bronze was used in Peru, the particular tribes inhabiting this portion of Columbia seem to have confined themselves to gold.

28. CELT OR CHISEL, in pure gold. Weight, 2 oz. 18 grains.  
*District of Carolina, Antioquia.*



This implement, or chisel, is by far the rarest of the objects contained in this remarkable collection, being in fact the only known type of a true wedge or celt in gold. It is precisely the same shape as



Fig. 26.



Fig. 26 A. (Side view.)

many of the Neolithic axes or chisels found in Scandinavia, in fact both the Wedge (*Kiler*), Fig. 6, page 9, or the Chisel (*Smalmeisel*), Fig. 22, page 11, in Worsaae's "Nordiske Oldsager," are identically the same in form. Chisels of the types following (Figs. 27, 28, 29) are not uncommon in gold, and are really of the same pat-

tern as those in steel at present in use, but this implement is of the true Neolithic wedge form, and being in the precious metal is perfectly unique. Nor do any celts of this type occur in bronze. It has been hardened by hammering, shows evident signs of use, and has a cutting edge similar to many of the ground axes of Denmark. It is highly polished. From whence the Indians procured this type, a form so common in the old world, unless by intercommunication, is a question which cannot but strike all who study the interesting subject of prehistoric archaeology. (Figs. 26, 26A.)



Fig. 27.



Fig. 28.



Fig. 29.

29, 30, 31, 32. CHISELS, in gold. Natural size. Weight of No. 29, 7 dwts. 12 grains; 30, 2 dwts. 12 grains; 31, 2 dwts. 12 grains; 32, 1 dwt. 6 grains. *District of Carolina, Antioquia.*

These chisels, which are hardened by hammering, were used upon other objects of soft gold, and most probably for polishing. Nos.



30 and 31 (Figs. 28 and 29) are curled at the top, perhaps to be placed in a kind of handle or for stringing as ornaments. (Figs. 27, 28, 29.)

### PERSONAL ORNAMENTS.

The Collection is particularly rich in personal ornaments, which, contrary to usual custom, are mostly of the purest gold. As civilization advanced, there was a growing tendency to embellish the person and make the greatest show with the least amount of metal, so that most of the objects of a late period are greatly alloyed with copper, whilst those of the greatest antiquity were of the purest description.

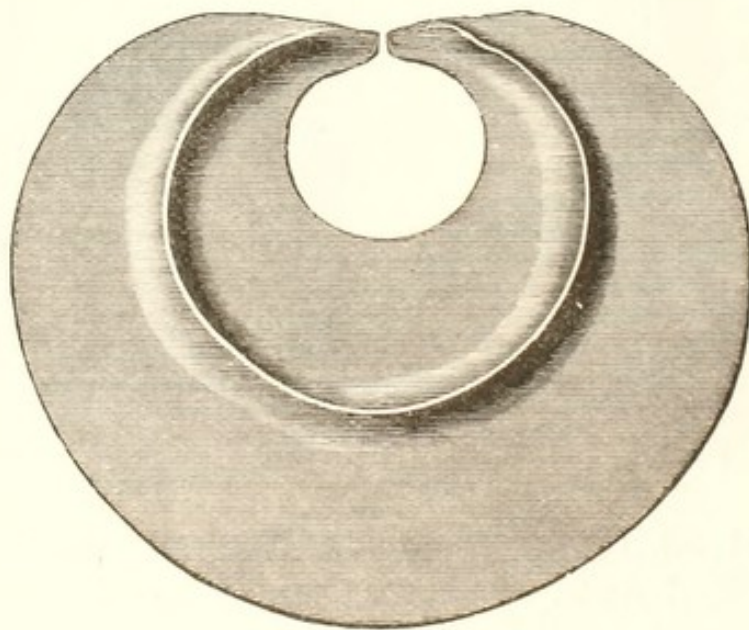


Fig. 30.

32A. NOSE RING OR ORNAMENT, worn principally by men.  
Weight, 17 dwts. 12 grains. *District of Jerico, Antioquia.*

This is an extremely fine disc of massive gold, with a circle in the centre emblematical of the sun. It was worn by being attached by the points to the cartilage of the nose, and thus hanging over the mouth. It was also worn in the ear, and hung round the neck. Many specimens of pottery representing gods dug up in Central America have these gold ornaments still attached to the nose. A large series of clay idols of various descriptions in the Borlase Collection have them thus attached, placing beyond doubt the question as to how they were worn. This disc lies perfectly flat, many are somewhat convex. (Fig. 30.)

33, 34. NOSE ORNAMENTS. Weight of No. 33, 2 dwts. 14 grains; weight of No. 34, 1 dwt. 15 grains. *District of Jerico, Antioquia.*

No. 33 is similar to Fig. 30, but much smaller. No. 34, Fig. 31, is not quite the same type, the ridge not being so well defined and not in the centre.



Fig. 31.

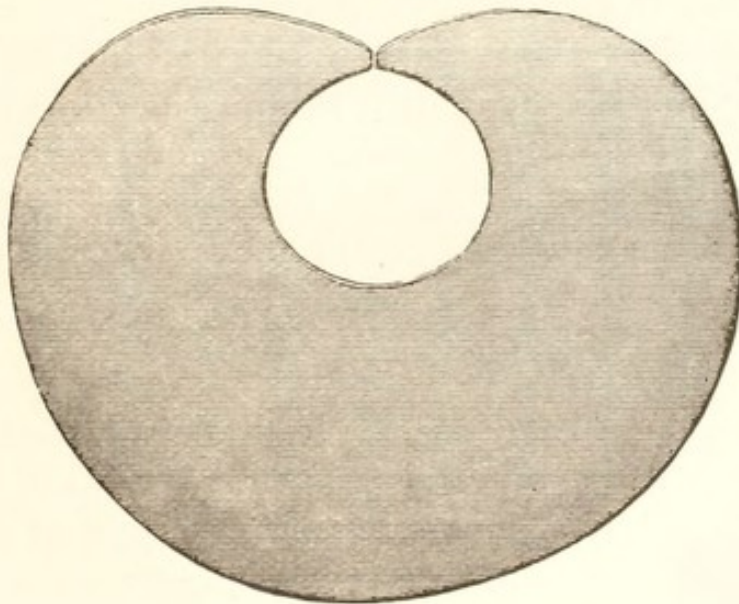


Fig. 32.

35, 36 and 37. NOSE OR EAR ORNAMENTS. *District of Jerico, Antioquia.*



The figure represents No. 36. The whole three are similar in shape, but vary in size. No. 35 is  $2\frac{3}{4}$  inches in width, weighing 10 dwts. 2 grs. No. 36, Fig. 32, 10 dwts. 10 grs., is of the actual size of the woodcut; whilst No. 37 is  $2\frac{1}{4}$  inches in width, weighing 8 dwts. 22 grs. They are quite plain, slightly convex, and well polished, and were worn as nose and ear ornaments in the same manner as Fig. 30. (Fig. 32.)

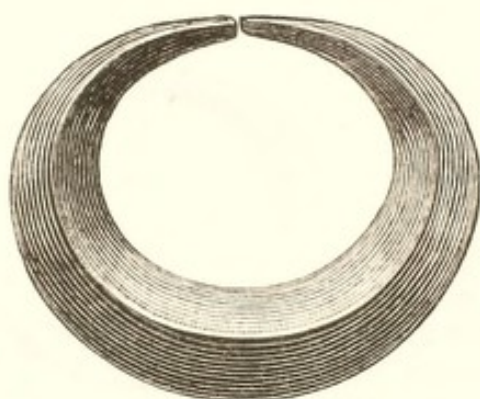


Fig. 33.

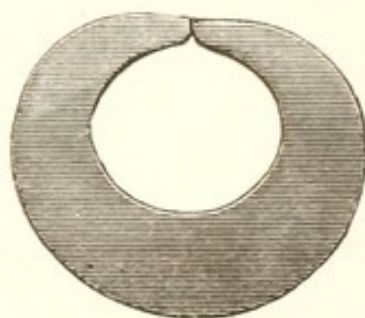


Fig. 34.

38 and 39. NOSE ORNAMENTS. Weight of No. 38, 2 dwts. 10 grains; No. 39, 1 dwt. 10 grains. *District of Jerico, Antioquia.*

These are also nose ornaments, but not of such fine gold. Fig. 33 has a single rib or ridge, whilst Fig. 34 is quite plain. Actual size. (Figs. 33, 34.)



Fig. 35.

40, 41 and 42. NOSE AND EAR ORNAMENTS of thin stamped gold. Weight of the three, 2 dwts. 6 grains. *District of Angostura, Antioquia.*

Light, and of the purest gold, they are ornamented near the outer ridge by a series of punctuations, showing the Indians were familiar with *repoussé* work. They are all of the same size. (Fig. 35.)

43. NOSE OR EAR ORNAMENT. Exquisitely worked of the purest and brightest gold. Weight, 13 dwts. *District of Riosucio, State of Cauca.*



Fig. 36.

A glance at this beautiful and exquisitely worked ornament will prove at once the skill of the Indians in the goldsmith's art. Its rarity not only consists in the workmanship, but in its design, as it proves incontestably the knowledge of effect through design. Recently jewellers have introduced bracelets, called the "puzzle" bracelet, which have had a large sale. They are composed of twisted wires, two twisted to the right, and two to the left, and then placed next to each other. When turned, they present the peculiar effect of being wider at one part than another, and of expanding or of contracting when turned to or from the observer as the case may be. Precisely the same twist, with the same effect, is to be found in this ornament. That the Indians knew of the effect in both its bearings, there can be no doubt, for in the ornament two sets of lines are arranged, one showing the expanding and the other the contracting effect. The drawing gives the exact size and width of the nose ring, which was fastened to the cartilage of the nose by a wire running through. It is half an inch thick, and consists of seven double parallel lines of ornamentation—two lines being plain, succeeded by two of the before-mentioned remarkable twist. It has been cast, and, although heavy, is not quite solid. The inner portion of the ring is of plain gold, and has been soldered on, not forming part of the ring in the original casting. A slight fault has occurred in the making, as on the lower part of the ring is a smooth surface, indicating that a hole or bubble has been soldered up—with gold, however, of the same quality. It is worthy of remark, and it is really somewhat difficult to understand, that this, which is, perhaps, the finest ornament in the collection, should have been made by the Indians of Cauca, generally considered to have been the most degraded of the Central American tribes. (Fig. 36.)



Fig. 37.

44. NOSE ORNAMENT. Weight, 3 dwts. 16 grains. *District of Supia, State of Cauca.*

This is somewhat like No. 36, but much inferior in workman-



ship. It does not exhibit the peculiar twist, the lines not being double. It consists of ten lines, one plain and one ornamental alternately. It is of a dull light-coloured gold, and, like the previous specimen, hollow although pretty massive. (Fig. 37.)



Fig. 38.



Fig. 39.



Fig. 40.

45, 46, 47. PLAIN NOSE ORNAMENTS. Nos. 45 and 46 are of copper-coloured gold. No. 47 (Fig. 40) is pale yellow. Actual size. Weight of No. 45, 1 oz. 9 dwts.; No. 46, 5 dwts. 6 grains; No. 47, 2 dwts. 18 grains. *District of Jerico, State of Antioquia.*

These ornaments are all quite plain, but solid. (Figs. 38, 39, 40.)



Fig. 41.

48. NOSE ORNAMENT WITH ORNAMENTED CAPS. Weight, 12 dwts. *District of Abejorral, Antioquia.*

This is quite distinct in type from any of the foregoing nasal ornaments, and was probably worn also as a finger ring. The metal is alloyed with copper. (Fig. 41.)



Fig. 42.



Fig. 43.

49, 50. FINGER RINGS. Weight of No. 49, 6 dwts. ; No. 50, 11 dwts. 10 grains. *District of Jerico, Antioquia.*

These were most probably used as finger rings. Precisely the same types are met with in Ireland. (Figs. 42, 43.)

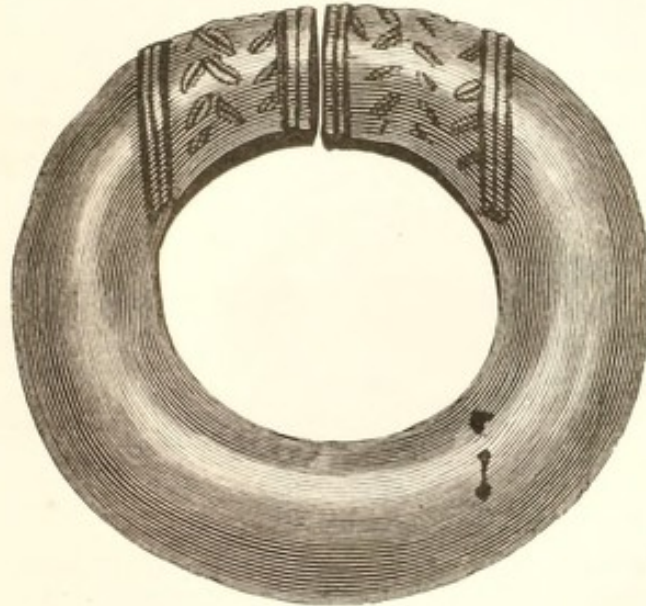


Fig. 44.

51. NOSE RING OR ORNAMENT, of copper-coloured gold. Weight, 15 dwts. 16 grains. *District of Jerico, Antioquia.*

A circular nose ornament, hollow in the centre and ornamented at the ends, which fit on to the cartilage of the nose. It is unusually thick and massive. (Fig. 44.)

52. CURVED NOSE ORNAMENT. Weight, 10 dwts. 16 grains. *District of Jerico, Antioquia.*



Of a copper-coloured gold, this curved nose ornament is fashioned to look like a moustache. It is hollow at the back. Many of the nose ornaments such as No. 44 must have been difficult to fix to

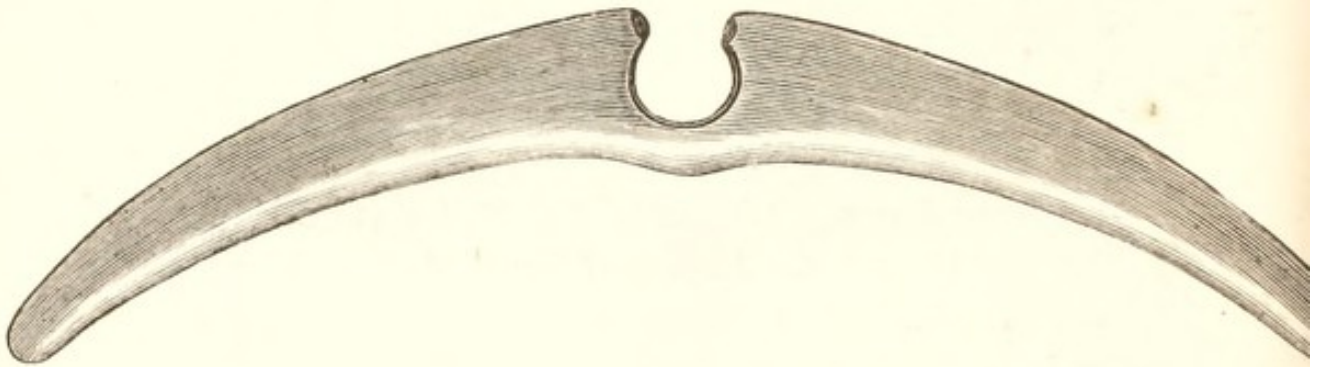


Fig. 45.

the cartilage, and have caused a certain amount of pain ; others, such as the one now under consideration, were attached by a thin piece of wire crossing the interstice and piercing through the cartilage. (Fig. 45.)



Fig. 46.

53. NOSE ORNAMENT. Weight, 8 dwts. 10 grains. *District of Jerico, Antioquia.*

This is a straight nose ornament imitating the moustache. It is embellished by a simple cord or twist of gold round the outer edge. The interstice is not regular but distorted, probably to effect a greater hold, the ornament not being attached by a thin wire running through the cartilage as in the preceding specimen. It is of bright gold and hollowed out at the back. (Fig. 46.)

54, 55, 56, 57, 58. CANOE-SHAPED NOSE ORNAMENTS, with double sides. Respective weights: No. 54, 18 dwts. 22

grains ; No. 55, 6 dwts. 12 grains ; No. 56, 2 dwts. 6 grains ; No. 57, 1 dwt. 6 grains ; No. 58, 1 dwt. 10 grains. No. 54 is from the *District of Jerico, Antioquia*. Nos. 55, 56, 57 and 58, from the *District of Angostura*.



Fig. 47.

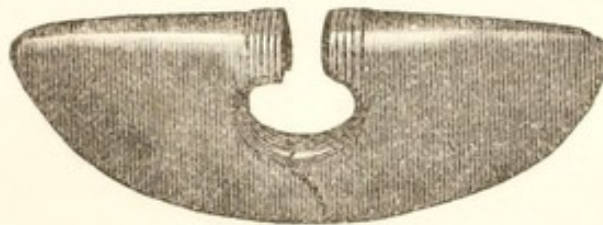


Fig. 48.

The whole of these are hollow in the interior. Nos. 54 and 55 (Figs. 47 and 48) are ornamented with plain lines near the incision. No. 56 is smaller, being  $1\frac{3}{4}$  inches in length ; No. 57,  $1\frac{1}{8}$  of an inch ; and No. 58 only three-quarters of an inch, evidently having been made for the use of a baby. They are all well polished. (Figs. 47, 48.)

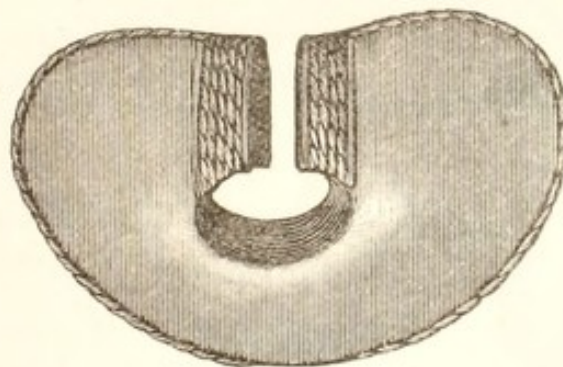


Fig. 49.

59, 60, 61. The two first are broad well-decorated NOSE ORNAMENTS. Weight of No. 59, 10 dwts. 6 grains ; No.



60, 8 dwts. 22 grains, and No. 61, 2 dwts. 3 grains. No. 59 is from the *District of Riosucio, State of Cauca*. Nos. 60 and 61, *District of Jerico, Antioquia*. They all have double sides.

No. 59 (Fig. 49) is a broad well-polished nasal instrument, with five single twisted lines each side of the incision and a double twist encircling the whole on the outer edge. No. 60 is smaller,  $1\frac{1}{4}$  inch in length, of a pale yellow colour, the ornamentation consisting of two single twisted lines and a plain one each side of the cut. No. 61 is a very small one of similar type, slightly ornamented, about three-quarters of an inch in length.

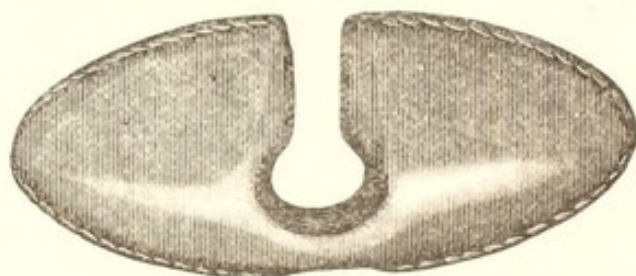


Fig. 50.

62. SINGLE-SIDE NOSE ORNAMENT. Weight, 7 dwts. 4 grains. *District of Riosucio, State of Cauca*.

This is single-sided, slightly convex, with a much larger opening than any of the other types, and most probably easier to wear. It has a single twist round the outside border, and is well polished on the exterior. (Fig. 50.)



Fig. 51.

63. SMALL NOSE ORNAMENT. Single-sided, convex. Weight, 1 dwt. *District of Jerico, Antioquia*.

This small ornament was made from a flat piece of gold, and simply bent into its present shape. It has no ornamentation, and is polished on the exterior. (Fig. 51.)

- 64, 65. SMALL NOSE ORNAMENTS. Weight of No. 64, 22 grains; No. 65, 2 dwts. 12 grains. *District of Aguadas, Antioquia.*



Fig. 52.

These are quite distinct in type from any of the foregoing, the shape being precisely like the inverted yoke of a milkman. No. 64 is small, as per Fig. 52, but No. 65 is larger, being about double the size. (Fig. 52.)



Fig. 53.

66. NOSE ORNAMENT. Weight, 3 dwts. 18 grains. *District of Manirales, State of Antioquia.*

This is one of the most interesting objects in the collection. The front side is decorated with a series of spirals, the two large ones each side of the circular part of the incision being formed of single wires, whilst the three small ones at the base are formed of double ones. To the right and left of the centre large ones are two of similar size, but double, and the extremities, still consisting of spirals, are of single wires. The spirals are separated from each other by fine double wires. The workmanship is very beautiful, and reflects the highest credit upon the Central American tribes. It is of bright gold of the purest quality, and has been cast and then worked. The back is plain, but well polished. It evidently belonged to a personage of high rank, perhaps the king or chief of the tribes of the district of Manirales. (Fig. 53.)

67. BELT OR HUARACA, of highly polished gold. Length,  $23\frac{3}{8}$  inches; width,  $\frac{5}{16}$  of an inch. Weight, 9 dwts. 12 grains. *District of Jerico, Antioquia.*

This band of gold was either worn round the head to support a head-dress of feathers, or was used by the tribes of Jerico in a similar manner to the belts distributed for feats of strength and



skill by the Incas at the festival of the *Umu-Raymi*. On the occasion of this festival the young nobility of the empire, performing feats of arms, contested for prizes, the highest award being a belt

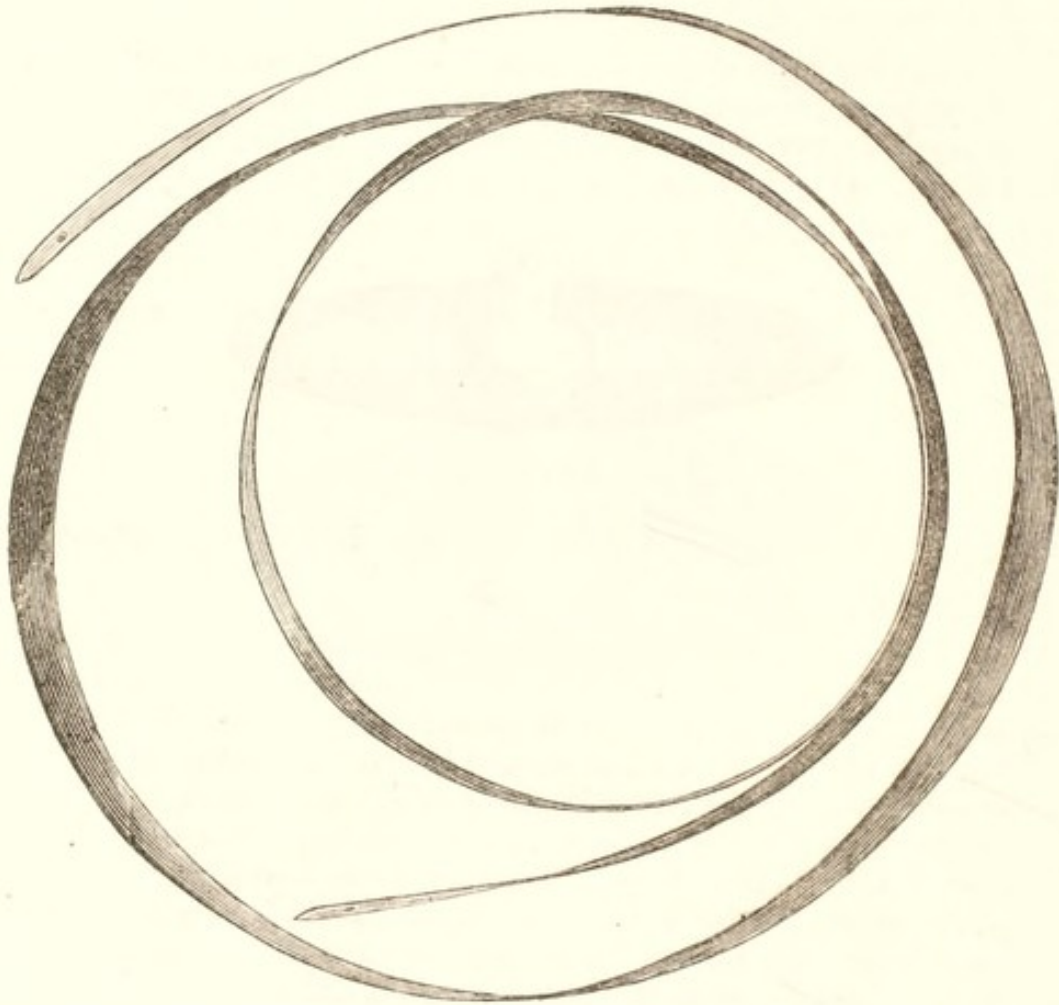


Fig. 54.

or, as it was termed, *huaraca*, the possession of which admitted them among the nobles of the land. It is of the purest gold, and is highly polished. (Fig. 54.)

68. ORNAMENT FOR DECORATING THE FOREHEAD. Weight, 12 dwts. *District of Jerico, Antioquia.*

This is a very beautiful ornament, made with great skill. Its use is said to be for decorating the forehead, but it was probably

used for general decoration upon any portion of the body. It has a kind of pyramid in the centre, with a scroll upon each side, the pyramid being decorated with two spirals, and the scrolls each

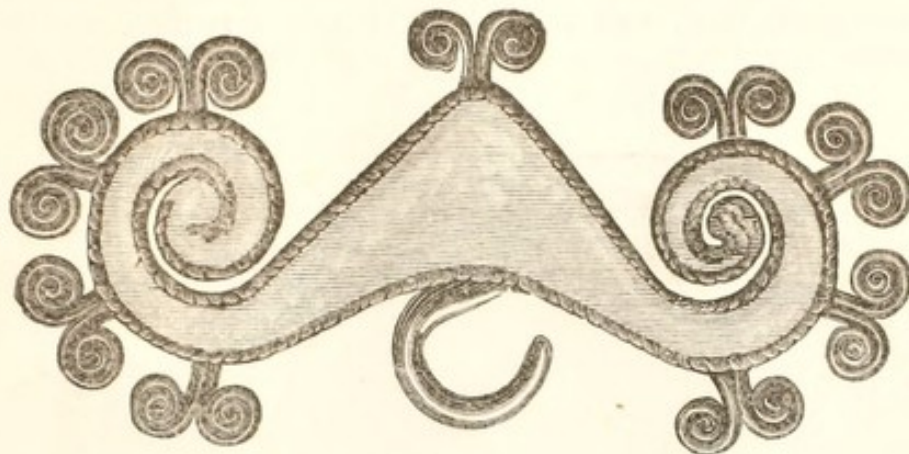


Fig. 55.

side with eight. The circles or spirals are composed of single wires of the usual "moon" pattern, and have been soldered on to the back. The outer edge of the pyramid and scroll is decorated with a single twist. It is of copper-coloured gold. (Fig. 55.)

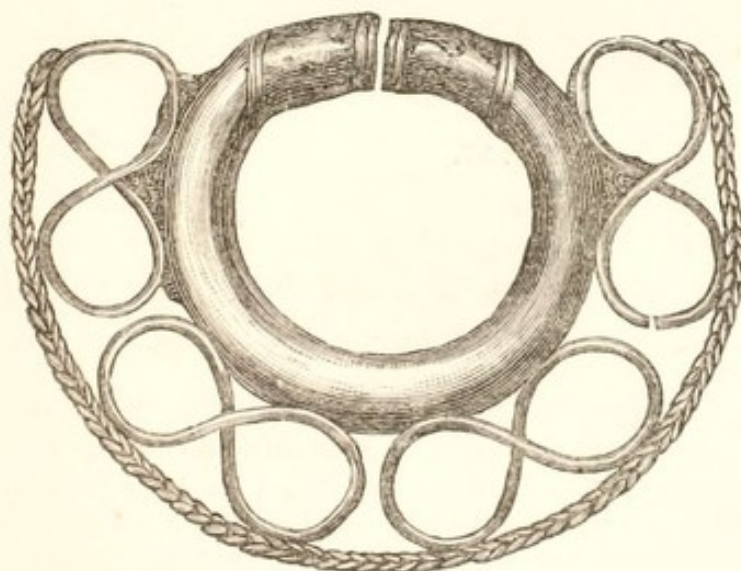


Fig. 56.

69. BREAST OR NOSE ORNAMENT. Weight, 15 dwts. 9 grains.  
*District of Jerico, Antioquia.*



The centre ring of this ornament, which is of the purest and brightest gold, is of the same type as the nose ornaments, and is hollow. The outer circle of a double twist of gold is soldered to the inner by four ornaments resembling the figure eight. The twist is extremely fine, and the whole ornament particularly elegant. (Fig. 56.)

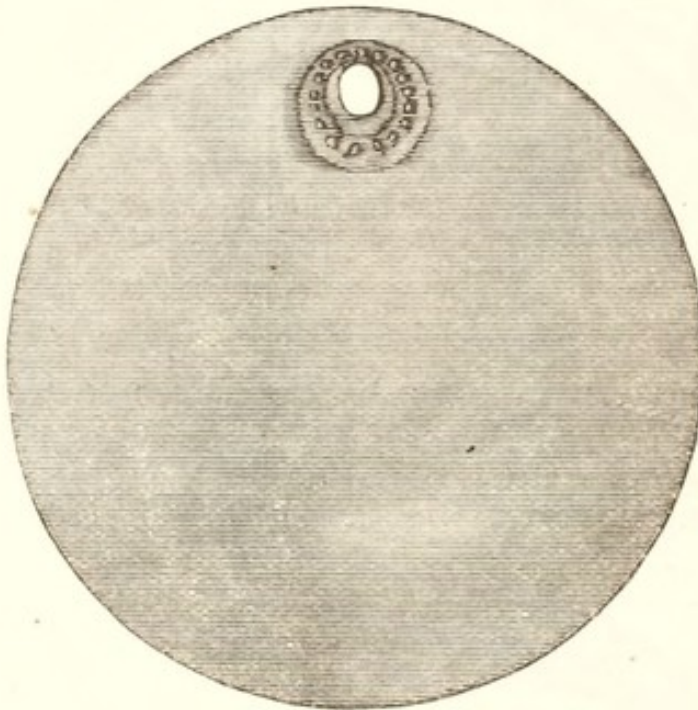


Fig. 57.

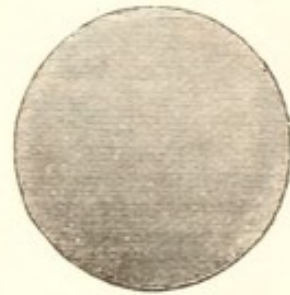


Fig. 58.

70, 71. ORNAMENTS, probably suspended round the neck. Weight of No. 70, 5 dwts. 2 grains; No. 71, 2 dwts. 6 grains. *District of Jerico, Antioquia.*

No. 70, a pendant, is evidently symbolical of the full moon, and was hung round the neck. It is highly polished on both sides, and the hole at the top ornamented with a circle of punctuations. The surface is so smooth that it might have been used also as a mirror.

No. 71 is similar in shape, but has no hole. It is polished only on one side. (Figs. 57 and 58.)

## EARRINGS.

The Collection is very rich in earrings, there being no less than eleven distinct types represented.

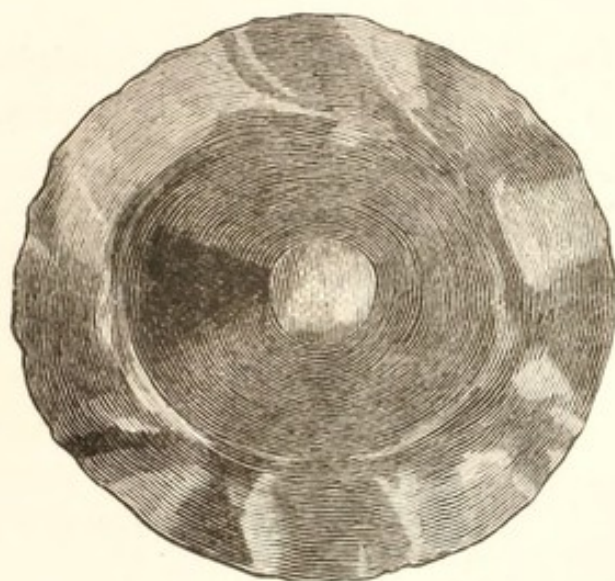


Fig. 59.

72. EARRING, of very bright gold. Weight, 5 dwts. 4 grains.  
*District of Jerico, Antioquia.*

From the lowest tribes of savages to the highest types of civilization, the earring has always been the favoured and most predominant ornament. In Central America they were extensively worn, both by men and women, and as a rule singly, not in pairs. No. 72 is in shape not unlike a manila or sombrero hat. It has been beaten out, and is polished upon the outside as well as upon the inside of the rim. It has a hook in the interior to fasten it to the ear. (Fig. 59.)



Fig. 60.

- 73, 74, 75, 76. EARRINGS WITH SCREW  
FASTENINGS. Weight of No. 73, 3



dwts. 7 grains; No. 74, 3 dwts. 4 grains; Nos. 75 and 76, 40 grains. *District of Jerico, Antioquia.*

These earrings are quite plain, and slightly convex. It will be noticed by Fig. 60 that they were attached to the ears (which were necessarily pierced), in precisely the same manner as many of the modern earrings by what is termed the corkscrew fastening. (Fig. 60.)



Fig. 61.

76, 77. SMALL EARRINGS. Weight of No. 76, 10 grains; No. 77, 10 grains. *District of Jerico, Antioquia.*

These are extremely small, and were probably worn by children. They have the single-twist corkscrew fastening. (Fig. 61.)

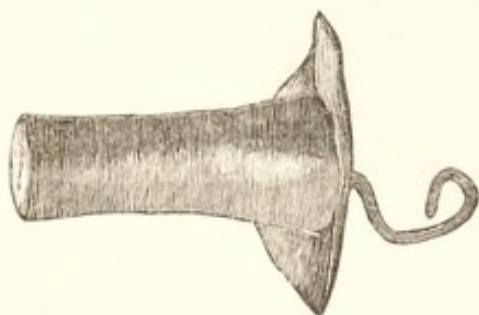


Fig. 62.

78, 79, 80, 81. EARRINGS. Weight of No. 78, 2 dwts. 22 grains; No. 79, 2 dwts. 12 grains; Nos. 80 and 81, together, 8 grains.

The shape of these earrings, which are of the purest gold, is very remarkable, resembling a very tall Welsh hat, or some of the Mexican hats. They are very bright, and have been hammered into their present form. From the interior springs a gold wire of "corkscrew" pattern. They were worn by both men and women. Nos. 80 and 81 are very small—in fact, miniature representations of Nos. 78 and 79. (Fig. 62.)



Fig. 63.

82. EARRING, in the form of an Alpine hat. Weight, 16 grains. *District of Jerico, Antioquia.*

The rim of this earring is stamped out, producing two rings, and a beading round the outer edge. It was fastened by the "corkscrew" pattern. (Fig. 63.)

- 83, 84. SOLID EARRINGS, with tapering points. Weight, 5 dwts. the two. *District of Jerico, Antioquia.*

Of unusual pattern, these were worn only by women. They are quite solid, and were suspended from the lobe of the ear, not screwed in. (Fig. 64.)



Fig. 64.

85. EARRING, of carnelian. *District of Angostura, Antioquia.*

A very beautiful specimen of bright red carnelian (a variety of silica) has been made in this instance into a bead, the perforation having been most adroitly drilled. The carnelian has a hardness of 7.5, so that nothing but the topaz, sapphire (corundum), or diamond, in the shape of stone, would touch it. The Indians may have used corundum, which is found in Central America; or by continuous and prolonged labour it might have been produced with sand, but it must have been a great *tour de force*. The wire running through it is of the purest metal, and was twisted into the ear. (Fig. 65.)



Fig. 65.

86. EARRING, consisting of two distinct rings like finger-rings hooked together. Weight, 3 dwts. 17 grains. *District of Jerico, Antioquia.*

This would seem to be two finger-rings hooked together for convenience, but it is said to be a true type of earring in Central America. (Fig. 66.)

87. EXTREMELY RARE EARRING, with enamelled eyes. Weight, 15 grains. *District of Jerico, Antioquia.*

Although very small, this is, perhaps, the most interesting earring of the series, for it is of a purely Greek type. Many specimens precisely the same are met with in Cyprus. It represents a snake with its



Fig. 66.



mouth wide open; but the rarity is in the eyes being enamelled, probably the only known instance of enamelling in gold ornaments from this locality, with one exception. It seemed doubtful at first whether the colour was not produced by a small species of *lapis lazuli*, cut with a ring of white matrix round it, but on submitting the piece to close examination, the matter was set at rest—it is undoubtedly enamel.



Fig. 67.

Upon examining the top of the snake's head with a very high magnifying power, it appears as if it had been prepared for enamelling (even if it had not already been enamelled, and the enamel knocked off) by a slight ridge round the edge, and the rough surface chiselled, which is indispensable in assisting the flux to hold.

Another ring with enamel is in the possession of Sir Joseph Hooker. It is in the form of a lizard, with a green enamel on the body, and was found in a tomb in the north-east of Antioquia. (Fig. 67.)

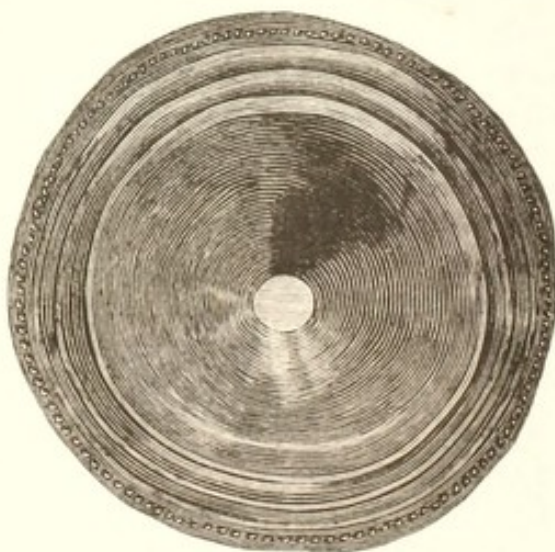


Fig. 68.

88, 89. ORNAMENTS, perhaps used as earrings or bosses. Pure bright gold. Weight, 2 dwts. 6 grains each. *District of Jerico, Antioquia.*

These are in general shape very much like the earrings (Figs. 59, &c.), and have a hole in the centre which may have contained the wire for fastening into the lobe of the ear; or they may have

been used as bosses upon an ornament or shield ; or, again, they may have been placed upon the body to cover the mamillæ, or even used upon horse trappings. They have been stamped out, are convex, and are ornamented with three raised rings and a beaded edge. (Fig. 68.)

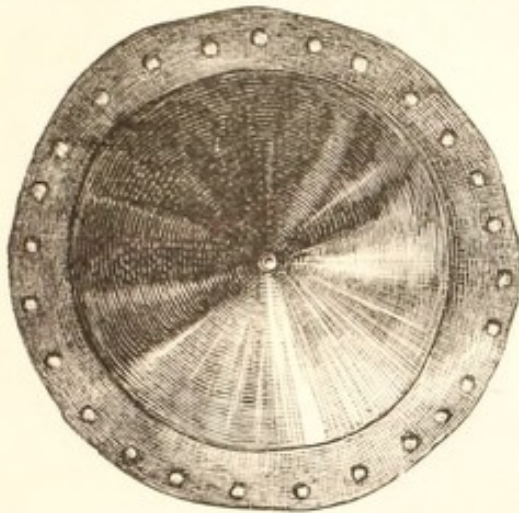


Fig. 69.

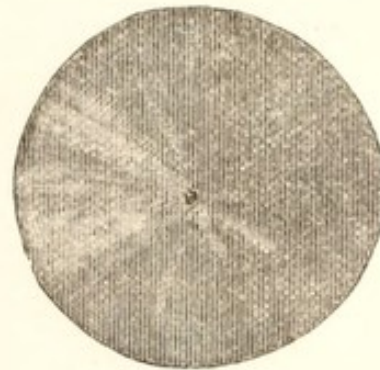


Fig. 70.

- 90, 91, 92, 93. GOLD ORNAMENTS, similar to Nos. 88 and 89. Weight of Nos. 90 and 91, 2 dwts. 12 grains, each ; of Nos. 92 and 93, 1 dwt. 6 grains, each *District of Jerico, Antioquia.*

Nos. 90 and 91 are generally similar to those previously described, the only difference being in the outer rim, which is punctuated instead of having concentric rings. Nos. 92 (Fig. 70) and 93 are similar, but perfectly plain. (Figs. 69, 70.)

94. ORNAMENT PROBABLY USED AS AN EARRING. Weight, 2 dwts. 3 grains. *District of Jerico, Antioquia.*

This consists of a bell-like disc, embellished with four sets of punctuations, each set containing sixteen, arranged in a square pattern. It is suspended by two wires with a ball at each end, one passing through the top. Most probably used as an earring. (Fig. 71.)



Fig. 71.





Fig. 72.

95. RARE TYPE OF NOSE ORNAMENT.  
Weight, 3 dwts. 12 grains. *District of Jerico, Antioquia.*

This nose ornament is very peculiar in shape, and also very rare, only one or two others being known. (Fig. 72.)

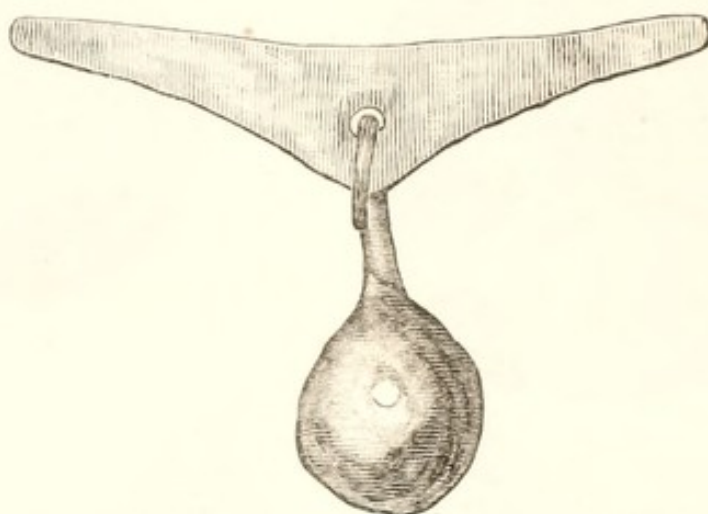


Fig. 73.

96. ORNAMENT, of bright gold. Weight, 2 dwts. 15 grains.  
*District of Jerico, Antioquia.*

The use of this peculiar ornament is doubtful, but it most probably has been worn as an earring. The bar from which the kind of ladle is suspended, shows signs at either end of having been fitted into a socket. (Fig. 73.)



Fig. 74.

97. ORNAMENT, in gold, worn by the priests and nobles.  
Weight, 10 dwts. *District of Jerico, Antioquia.*

This ornament was worn only by a few of the most powerful priests, and was really a badge of office. It is ornamented in the centre by ten spirals attached to four twists of gold wire, and is of copper-coloured gold. It is pierced through. (Fig. 74.)

98. ORNAMENT. Most probably an earring. Weight, 2 dwts. 11 grains. *District of Riosucio, State of Cauca.*

An ornament consisting of four small balls of solid gold hanging by wires, the top ornamented with circles of gold. (Fig. 76.)



Fig. 76.



Fig. 77.

99. SMALL RINGS, of gold. *District of Tarumtal, Antioquia.*

These are made out of a flat piece of gold termed by goldsmiths "plate," rolled over and then soldered. (Fig. 77.)

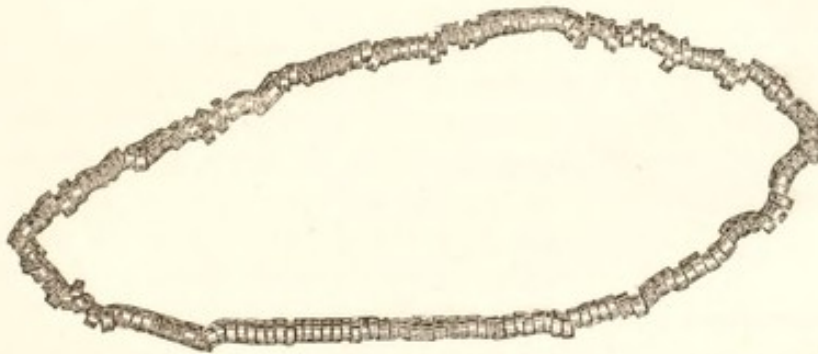


Fig. 78.

- 100, 101. RINGS of gold strung upon a gold wire (the latter modern). Weight, No. 78, 1 dwt. 17 grains; No. 79, 1 dwt. 8 grains. *District of Tarumtal, Antioquia.*





Fig. 80.

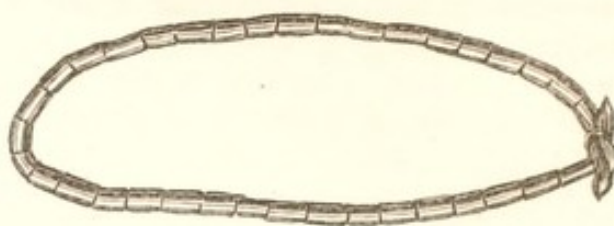


Fig. 79.

Made in the same manner as No. 99, but of different width and size.

102, 103, 104, 105, 106. HAIRPINS of various sizes. Weights respectively, 1 dwt. 4 grains, 16 grains, 15 grains, 15 grains, 11 grains. *District of Jerico, Antioquia.*

These are of quite the same type as ladies' hairpins now in use, with the exception of being flat. In Central America the modern women used them to fasten their combs by as well as to keep up the hair. (Fig. 80.)

107. PORTION OF AN ORNAMENT. Weight, 16 grains. *District of Jerico, Antioquia.*



Fig. 81.

Whatever the ornament may have been of which this was a part, it was very beautiful, as the fragment shows not only extremely fine work, but a very graceful design. It is made of fine gold wires so skilfully and adroitly worked that it would compare not unfavourably with the finest goldsmith's work of the present day. The wire has been drawn to one gauge, and is  $21\frac{3}{8}$  fineness. It has a very fine plait upon the outer edge, then a series of radiating straight wires, and a small plait upon two galleries made of twelve double circles. (Fig. 81.)

108, 109. SQUARE FLAT ORNAMENTS, punctured. Weight, 10 and 7 grains respectively. *District of Jerico.*

These are simply square pieces of fine flat gold with a hole at the top and punctured round the edges. Most probably used for decoration. They might have been weights, but there is no evidence to support the proposition. Highly polished upon the surface. (Fig. 82.)



Fig. 82.

110. SERIES OF CHARMS. Used for making necklaces. *District of Jerico, State of Antioquia.*



Fig. 83.

These singular charms are made of an admixture of silver and some base metal, and are strung into necklaces. They are all stamped out. (Fig. 83.)

### MISCELLANEOUS OBJECTS.

111. FISH HOOK, in gold. Weight, 4 dwts. 5 grains. *District of Jerico, Antioquia.*

Angling, as one of the modes of supporting life, has naturally been universal, so it is no matter of surprise that fish hooks are found in gold in this country, a locality known and remembered for its lavish use of the precious metal. The hook is solid, and resembles precisely in type those of bronze found in the lacustrine habitations of Neuchatel and other Swiss Lake dwellings.<sup>1</sup> (Fig. 84.)



Fig. 84.

<sup>1</sup> See Lee's translation, Kellers' "Swiss Lake Dwellings."





Fig. 85.

112. PULLEY (?), in gold. Weight, 8 dwts.  
*District of Manirales.*

Senor Arango calls this a pulley, but it is difficult to see upon what axle it could work, as the sides are quite plain. Might it not be, perhaps, a whistle or musical instrument? It is of bright gold, well polished, with long oblong holes in the groove, and a double twist at each edge.

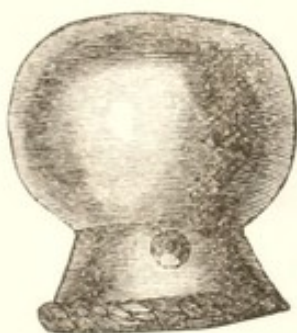


Fig. 86.

113. HANDLE (?), OR WHISTLE (?), in gold.  
Weight, 17 dwts. *District of Jerico, Antioquia.*

What this knob is it is very difficult to say. It consists of a base with a shank, which is hollowed out, and may have been used for pressing needles or pins through skins in the same manner as a thimble, or as the instrument called a *palm*, used by sail-makers in pressing a needle through the sails. The ball is hollow, but the shank is solid, to bear, as it were, pressure. It has two holes in the groove, which are more in favour, perhaps, of its use as a whistle. (Fig. 86.)



Fig. 87.

114. SHELL (*Solarium Solaris*), in gold. Weight, 5 dwts. 22 grains.  
*District of Manirales.*

This is a very faithful representation of the shell *Solarium Solaris*, so called from its shape. (Fig. 87.)

115. NUGGET OF GOLD. Weight, 1 oz. 4 dwts. 5 grains.  
*District of Jerico, Antioquia.*



Fig. 88.

A very bright nugget of the purest gold, with scarcely any matrix. It illustrates well the quality and appearance of the precious metal from Central America as found *in situ*.

This example completes the descriptive list of this exceedingly rare and interesting Collection. The mystery and obscurity enshrouding the history and symbolical meaning of the objects have rendered them a difficult study, although at the same time increasing their interest, and tending, perhaps, to forward our knowledge of the civilization and development of mankind.















