## A GOSSIP ABOUT SHELLS.

EOPLE who have not given a thought to the origin of their shirt-buttons may be surprised to learn that for the production of those useful articles and many others there are imported into this country every year over 2,000 tons of mother-of-pearl shells. Few of the molluscs which frequent the coasts of Britain have shells remarkable for

either beauty of form or of colour, and contribute little material of use in the arts. The oyster furnishes a delicious article of food, but its shells are of so little value that they are usually cast aside as rubbish; of the whelk, the winkle, and the cockle, so highly esteemed by the plebeian, the same may be said. Mussel-shells, how-

ever, admit of being applied to useful and ornamental purposes. Their external surface is ground down until the pearly material is reached, and thus prepared they are fashioned into scent-bottles, pin-cushions, ringtrays, and other articles of that kind, in which they show to considerable advantage. The scallop-shell, which is not improved by polishing, but looks well when tinted and varnished, is used for somewhat similar purposes.

Of smaller varieties of British shells, imitation flowers are made, and boxes decorated with them form a staple article of the fancy goods dealer. Calcined and ground shells are used to some extent in the manufacture of pottery, and on various parts of the coast shells are crushed and applied to the land as manure, the fact that they are chiefly composed of carbonate of lime accounting for their application to the latter purpose.

Early voyagers to Southern and Eastern seas brought back with them specimens of shells unknown on our shores, and articles of utility and ornament were made of them, which excited much interest. The South Sea Islander found in the shells which strewed the beach materials for making his fish-hooks, spearheads, drinking vessels, knives, and articles of personal adornment, and it was surprising to find how well he had turned them to account. In every museum is now to be found a more or less complete collection of articles of the kind referred to, and all bear testimony to the exercise of much skill and patience. It was the necessity of the inhabitants of the distant isles of the sea that pointed out to more favoured peoples how to convert shells to useful purposes; but it was not until a comparatively recent time that the lesson was taken advantage of.

Shells from foreign parts, whether polished or in their natural state, have long been used as ornaments or treasured as curiosities in most households in this country; but it was not until the Birmingham buttonmakers and Sheffield cutlers began to use them in their trades that the traffic in them assumed any

dimensions. Mother-or-pearl was found to be admirably suited for making buttons, knife-handles, and buckles, and also for decorating articles by the inlaying process, and now the trade in that material has developed into considerable importance. The motherof-pearl shells are obtained chiefly from Australia, Manilla, Bombay, Egypt, South America, and Tahiti. Those from the two first-named places are the most esteemed. Many of them are as large as dessertplates, remarkably free from flaws, and of exquisite beauty. They are about half an inch in thickness, and weigh on the average from eighteen to twenty ounces each. A ton of picked samples is worth about £300. The South Sea variety used not to be esteemed of much value, as a large portion of each shell was dark-coloured. For years the dark portion was cast aside as waste; but the insatiable demand for novelty in buttons induced some of the Birmingham makers to utilise the dark parts of the shell, and under the name of "smoked pearl" it became popular, and continues to be so till this day. Buttons of motherof-pearl are made of all sizes from two inches in diameter to three-sixteenths of an inch, the former being used for coachmen's overall coats, and the latter for ladies' gloves and ornamental purposes. In making buttons the shell is cut into discs or lozenges of various sizes so as to utilise the largest amount of each. The cutting is done by means of annular saws, and usually the discs are so thick as to admit of being split up into two or three pieces, each of which furnishes material for a button. The pieces are turned and bored separately. The surfaces of buttons, studs, &c., are sometimes beautifully carved or etched.

In the manufacture of papier-mâché goods, thin pieces of mother-of-pearl are introduced with fine effect, and the same material is now extensively used in ornamenting card-cases, purses, jewel caskets, and an infinite variety of other articles. The best effects in this application of mother-of-pearl are obtained by using the shell of the various species of *Haliotis*, or ear-shell. Their variegated colours and wrinkled structure give them when polished an exceedingly rich appearance. The *Turbo olearis*, or green snail, is also employed with excellent results.

At Jerusalem there is a considerable trade in carving and engraving mother-of-pearl shells, which are sold to visitors as *souvenirs*. These are known as "pilgrim shells," and the subjects illustrated upon them have, as a rule, relation to incidents in the life of Christ. The Chinese carve quaint devices in the same material. In various parts of the East, the larger mother-of-pearl shells are used in the construction of houses. Mounted in a framing of wood they make at once strong and elegant panels, shutters, &c. The cathedral and other sacred edifices at Panama are lined with shells, and the soft light they diffuse is said to have a most pleasing effect.

Several species of cowries are turned to account for purposes of personal adornment in the shape of necklaces, bracelets, belts, &c. In the Friendly Islands, a yellow cowry is the badge of chieftainship. The harness of elephants in some parts of India is enriched with rows of small and highly polished cowries. One variety is used in West Africa and some other parts as money; but the medium is a clumsy one, as may be guessed when it is stated that it takes 1,500 cowries to equal the value of one English shilling. The "tiger cowry," one of the largest and most beautiful of this family, is to be seen converted to use in the form of salt-cellars, ring-dishes, snuff-boxes, pin-cushions, &c. Some are engraved in cameo style with mottoes, texts, or the Lord's Prayer. This shell is a favourite cabinet ornament, being as a rule beautifully coloured and having a high polish.

In different parts of the world trumpets fashioned from shells are in use by herdsmen for calling their cattle. The labourers on West Indian plantations are summoned to and from work by an instrument of this kind, and in some parts of Wales call-shells have long been employed. The lamps used in Indian temples are frequently made of shells. The Dyaks of Borneo expend much labour upon carving from the huge shell of the Tridacna gigas, or "Dutchman's cockle," armlets of great beauty. In texture these ornaments resemble ivory, but retain their original pure white colour untarnished by time. Amongst other uses to which this, the largest shell known, is put, may be mentioned its employment as a basin for garden fountains, as a dish for holy water in Roman Catholic churches, and as a vase for flowers. A more ready way of forming shell bracelets than that referred to above is practised by the natives of Dacca. They select the strong and heavy chank-shell (Turbinella pyrum) and by sawing it across at particular points get out rings of shell that require only a little polishing to fit them for use. This shell is also employed as a burnisher for nativemade calico and paper. The process is a laborious one, but the results are highly satisfactory.

The natives of the Bahamas are famous for their imitations of flowers in shells, and some splendid specimens of their work are to be seen at Bethnal Green Museum. The baskets of flowers, head ornaments, &c., are marvellous examples of imitative art in a refractory medium. The roses, passion-flowers, and others are perfectly copied, and the delicacy of the whole composition is charming.

Everybody is familiar with shell cameos. art of cameo-cutting is of high antiquity, and was brought to great perfection by the Greeks. modern times, however, the only materials used by the artists were different kinds of precious stones, but chiefly the variegated onyx. About the year 1805 the art of making shell cameos was introduced into Rome, having been conveyed from Sicily, where it is believed to have originated. Forty years ago, it found its way to Paris, where it has been carried on to a greater or less extent ever since. Now the finest shell cameos are produced at Rome and Genoa, those made in France being designed for a cheaper market. There are four varieties of shells used for cameos, namely: the Bull's Mouth (Cassis rufa), the under layer of which is red, resembling the sardonyx; the Black Helmet (Cassis Madagascarensis), the ground of which is a dark onyx; the Horned Helmet (Cassis cornutum), which has a yellow ground; and the Queen's Conch (Strombus gigas), the ground of which is of a pinkish hue. For cameo-cutting it is necessary that the shells should have three layers or strata of different-coloured material: the lower to form the ground, the middle for the figure, and the upper to mark the hair, wreath, or other prominent part. Having selected and cut out a portion of shell suitable for his purpose, the artist fixes it with cement on a piece of wood of convenient size and shape for holding in one hand. He then sketches with a pencil an outline of the design. All the substance of the shell outside this is removed by scraping or filing till the ground layer is reached; then by the careful use of a series of delicate tools the work is completed. Many of the French cameos are sent to Birmingham to be mounted. At present shell cameos are not in much demand in this country, but purchasers for them are found in the colonies and the United States.

In concluding this paper, it must not be supposed that we have exhausted the subject by any means. The uses of shells beyond those that have been enumerated are many and interesting. Let those who would be further instructed in the subject visit the British and the South Kensington Museums, and they will find abundance to gratify the appetite we have but whetted; or if they would know what an important business the traffic in shells has become, let them attend one of the sales of those articles held periodically in London.

DAVID BREMNER.

