SLINGS AND SLING-STONES.

By Colonel Philip D. Vigors.

Particular weapons, it is well known, belong to certain nations, or countries; for example, the boomerang to Australia; the kries, to the Malay; the sumpitam, or blow-pipe, to the Dyaks—natives of Borneo; and other instances might be adduced.

In this Paper I shall consider only the sling and its projectiles, as used in war; and it appears wonderful that they have not been more generally adopted by primitive nations. No doubt certain conditions are desirable, if not essential, to their general use. The country where sling-stones would be effective should be open, not densely wooded with tropical virgin forest and under-wood. There should be a facility for obtaining ammunition, i.e. either sea or other water-worn pebbles, or a geological formation yielding stones capable of being readily formed, and suitable to the sling. They should be soft when first cut, weighty, and abundant. One would suppose that they should have been discovered in large quantities on some of the battle-scenes of this island, or in and about the raths and other ancient Irish works, if they had been in general use. I very much doubt their ever having been so.

To begin at the beginning, we must draw on the sacred writings of the Old Testament. The stories therein told, and the mention made of slings and slingers, and the work they performed, are no doubt familiar to most, if not all, my readers.

Bible References to Slings and Sling-stones, &c.

We read of the 20 and 6000 Benjaminites that drew the sword, besides the inhabitants of Gibeah, 700 chosen men: "Amongst all this people there were 700 chosen men, left-handed; every one could sling stones to an hair-breadth, and not miss" (Judges xx. 16).
Amongst the companies that came to King David were mighty men, armed with bows, who could "use both the right hand and the left in hurling stones and shooting arrows out of a bow" (1st Chronicles, xii. 2).

Again, in xxvi. 14, of 2nd Chronicles, we read that Uzziah, the king, had a host of fighting men, and prepared for them shields, and spears, and helmets, and habergeons, and bows, "and slings to cast stones," also engines, "invented by cunning men, to shoot arrows and great stones withal."

Again, in xxv. 29, of 1st Samuel, we find Abigail pacifying David, and saying: "The souls of thine enemies, them shall he sling out, as out of the middle of a sling" (this was 1060 years before Christ). Again, the term, "sling out the inhabitants," is used by the prophet in Jer. x. 18.

The story of David and the Philistine giant, Goliath, as told in the 17th chapter of 1st Book of Samuel, is too well known to all to make it necessary to go into details here of the flight of the Philistines from the result of the sling-stone—one of the five smooth stones he took out of the brook. "His sling was in his hand," it is said.

In Proverbs (xxvi. 8) we find mention of the sling: "As he that bindeth a stone in a sling, so is he that giveth honour to a fool." Also, in the 2nd Book of Kings (iii. 25), the slingers are again mentioned; and, lastly, in the Book of Job (xli. 28), we read: "The arrow cannot make him flee; sling-stones are turned with him into stubble."

Passing from sacred to profane writers, we find, amongst the Greeks and Romans, that slings and sling-stones were in use; and although there is no mention of them in the Iliad, yet, according to Herodotus, 20,000 slingers were offered by Gelon to the Greeks, against Xerxes. The inhabitants of some parts of Greece were reputed more famous than others for their perfection in the use of this weapon. Three thongs of leather were used to form the Achaean sling. The manner of throwing the stone differed essentially from that of the natives.
of New Caledonia, judging from the figures representing it. The mode of carrying the stones was also different. The New Caledonians, living in a tropical climate, wore no "pallium," but carry their sling-stones in a bag worn round the waist. "Metal missiles, cast in moulds," were also used. Lucretius describes them as being in shape between that of "an acorn and an almond." Probably these were hand-projectiles. They have been found at Marathon, and in other parts of Greece, and are remarkable for the description and devices they bore, such as thunderbolts, names of persons, and the Greek word ΔΕΕΑΙ ("Take this")—a very appropriate inscription. The Libyans carried no other weapons than three spears and a bag of stones (Diodorus Siculus—III. 49). Xenophon refers to the use of the sling in the retreat of the ten thousand (Anabasis). Early Egyptian paintings represent the sling-bag worn over the shoulder. There is no mention of its use by the Persians. The Greeks are said to have employed mounted slingers in battle. The Jews (Fosbroke tells us) were very expert slingers.¹ Pliny attributes the invention of the sling to the Phenicians, but other writers ascribe it to the inhabitants of the Balearic Isles (Majorca and Minorca); they were famous for their dexterity in the use of the sling. Florus and Strabo say: "These people bore two kinds of slings, some longer, others shorter, which they used according as their enemies were nearer, or more remote." Diodorus Siculus adds: "The first served them for a headband, the second for a girdle, and the third was constantly carried in the hand. In fight they throw large stones with such violence, that they seemed to be projected from some machine, insomuch that no armour could resist their stroke. In besieging a town they wounded and drove the garrison from the walls, throwing with such exactness that they seldom missed their mark. This dexterity they acquired by constant exercise, being trained to it from their infancy, the mothers placing their daily food on the top of a pole, and giving

¹ Encyclopædia of Antiquities, vol. ii.
them no more than they beat down with stones from their slings. The Roman slingers came from the Balea-
ric Isles, and they are represented in some of the ancient sculptures. This art is still, in some measure, preserved
by the shepherds of these Islands.”

I find it said that the invention of the sling has been
erroneously ascribed by some writers to the inhabitants
of England. Froissart (vol. i., chap. 85) gives an
instance in which slings were employed for the English
by the people of Brittany, in a battle fought in that
province, during the reign of Philip de Valois, between
the troops of Walter de Mauni, an English knight, and
Louis d’Espagne, who commanded 600 men on behalf of
Charles de Blois, when competitor with the Earl of
Montfort for the duchy of Brittany. The Anglo-
Saxons are said to have used slings, and it is recorded
that they were used in England as late as the beginning
of the fifteenth century. According to another author,
they were also used in naval combats. In 1572, slings
were used at the siege of Saucerne by the Huguenots, in
order to save their powder. D’Aubigné, who records
the fact, says, that “they were hence called Saucerne
harquebusses.” Slings were made of different materials,
chiefly flax; hair and leather were also used, woven into
bands, or cut into “thongs,” broadest in the centre for
the reception of the stone, or baked clay ball, or metal
projectile; the slings tapered gradually towards both
ends; and with one of these slings a good slinger would,
it is said, throw a stone 600 yards. An ancient Icelandic
treatise, supposed to have been written about the twelfth
century, mentions slings fixed to a staff. The use of both
slings and hand-stones by the ancient Irish is, I believe,
fully established. They are, I think, mentioned by the
late Sir R. Wilde, also by O’Curry and other writers, on
the manners and customs of the ancient Irish. Balls of
concrete and of metal were also in use, both for slings
and for the hand. The death of Meadbh, or Mab, the
Queen of Connaught, is recorded as having been caused
by a sling-stone thrown at her across the Shannon; but,
as I have already remarked, I cannot but think that if
sling-stones had been in general use in Ireland, more of
Fig. 1.—Metal Mould, in the Museum, Royal Irish Academy, Dublin. Supposed to have been used to form projectiles for Sling- or Hand-stones. Full size, $3\frac{1}{8} \times 2\frac{1}{2} \times 1\frac{1}{4}$ inches.

Fig. 2.—Sling-stones used by the Natives of New Caledonia. Length of Four, measured $2\frac{1}{4}$ inches each. Width of Eight, measured 1 inch. Weight, $1\frac{1}{2}$ oz. to $1\frac{3}{4}$ oz. (Soap-stone.)

them would have been found. We have drawings of various kinds of weapons, and of people using them; but I am not aware that there is any drawing or carving representing a sling, or a person in the act of using one, amongst the ancient Irish.

There is in the Museum of the Royal Irish Academy, in Dawson-street, a bronzed mould (closely resembling fig. 1), which is supposed to have been used for the purpose of forming projectiles—perhaps of baked clay—for use in war. From the size I do not consider they were sling-stones; hand-stones they may have been, but I think we require further evidence before we can say they were used as projectiles at all. The length of the mould inside is 3\(\frac{1}{4}\) inches, its width 2\(\frac{3}{8}\) inches, its depth about 1\(\frac{1}{4}\) inches; the thickness of the edge of the mould is about \(\frac{1}{2}\)-inch, if my memory serves me right.

Mr. G. A. Prim, in an article contained in the Archaeological Journal for 1852, says (at p. 122):—

"Amongst other articles discovered at the opening of a rath at Dunbel, county Kilkenny, they found some piles of round pebbles evidently intended to be used as sling-stones; they varied from the size of a hen's egg to that of a pigeon's egg, but were more globular."

Some specimens have been placed in the Museum in Kilkenny. Globular stones were also found (by Mr. Wakeman) in the crannogs of Drumdarragh, county Fermanagh, supposed to be sling-stones by some, and by others hammers. They varied "from the size of an orange to a moderately-sized plum, some formed by art, others merely water-worn pebbles."

Having touched on slings and slingers of olden days, I shall now endeavour to describe an instance of slings being used in war at the present time. Some years since, during a cruise amongst the South Sea Islands in H.M.S. Havannah, under the command of the late Admiral John E. Erskine, we visited New Caledonia, and spent about a month there. We landed at several places along the coast, from Balâde, on the N.E., to Gitima, near the S.W. end of this great island. It was during one of our trips on shore that I first noticed the
peculiar weapon used by the natives, namely, the sling and sling-stone; and this weapon appeared to be the one most valued by the natives of the island, consequently they are more expert in its use than in that of their other weapons—the bow and arrow, spear and club. Though no mean performers with these, the club is generally used to finish the work begun by the spear, or sling-stone. Their slings are about six feet in length; they have a tuft at one end, and a double loop at the other. This loop is about four inches long, and is intended to be twisted round the fingers to keep that end of the sling from leaving the hand when the other end is released. In the centre the sling is double for the length of about three inches—this is to receive the sling-stone—and it is plaited; the rest of the sling is twisted. It is made from some strong fibre, probably the bark of a tree. They have fishing-nets and lines, very neatly made from the same description of material. The stone is kept in its place by the thumb and forefinger of the left hand, the left arm being at its full extent, and nearly level with the shoulder. The right arm is bent, and the right hand kept near the right ear, the head being partly turned towards the right side.

The attitude of the slinger before throwing the stone is one that develops the muscles, and is most manly and attractive. A single swing of the stone round the head is all the impetus the stone gets; when opposite the right side, the tuft end of the sling is released from the palm of the hand, and the stone proceeds with great velocity and wonderful certainty towards the object aimed at. There are not the many revolutions round the head that our schoolboys formerly made when using a sling; neither was there such grace or nobility in their action as in that of the New Caledonian stone-slinger. Both at Balâde and at Yengen, on the east coast of this island, I saw numbers of the natives with marks of injuries from sling-stones. Some of these wounds must have been very severe. On the side of the thigh of a native, who was in the boat with me one afternoon, I noticed a mark so like what one would expect to see from the wound of a bullet, that I asked him about it.
He at once took a sling-stone from the bag he carried, and put the point of the stone to the wound; then he showed me a corresponding wound on the inside of his leg, where he explained to me that the stone had gone through. I would not have believed this, had I not seen the wound and heard his explanation (in broken English). Hearing also the way they made the stones "whistle" in the air, like a bullet in its flight, impressed me with an idea of the great velocity and power they were able to give to them.

Fig. 2, p. 361, will explain the shape of the stones used. The ends are round-pointed. I measured several, and they varied very little in their dimensions. Their length was from $1\frac{9}{16}$ to $2\frac{1}{4}$ inches; their diameter exactly 1", and did not vary $\frac{1}{16}$ of an inch. Their weight was from $1\frac{1}{2}$ to $1\frac{3}{4}$ ounces. They appear to be composed of a sort of "steatite," or soap-stone. The natives sometimes use rough stones, which I found came very near the above in their dimensions. The stones shaped by the natives seem well adapted for their purpose, being soft, and therefore easily worked; while their weight, being considerable for their size, adds much to their effect.

Some little distance from the mouth of the Yengen river, on its left bank, I found a large table of rock, "honeycombed" with circular holes. Its novel appearance attracted my attention, and I found on inquiry that the holes were formed in the process of making the sling-stones. Thousands of these must have been made here, to judge from the number of holes. The holes were about one inch in depth.

It has occurred to me that some of the rocks found in Ireland with cup and other shaped holes in them, and about the origin of which I believe considerable uncertainty hangs, may have been formed in a somewhat similar manner and for a like object: I allude to the mysterious cup-shaped markings noticed by Mr. Wake- man near Youghal, and described in the Journal of this Association for 1887; or those found near Enniskillen; also those at Ballykean, county Wicklow, and Bally- brennan, county Wexford; also in Norway, Wales, India, Switzerland, &c. Could they have been used for
grinding up minerals for Pigments? or reducing gold or other ores for smelting? I am not myself in a position to answer the question, as I have never seen these cup-marked stones; therefore I merely throw out the suggestion.

I shall now describe the bag used by the New Caledonians to carry their supply of sling-stones. It is about 10 inches long by 5 wide, and is made of closely woven, or netted cord, having bands of the same material about 2 inches wide, and double; these go round the waist and keep the bag in its place; they also serve to hold an additional supply of stones. Between the bag and the waist- straps about fifty stones could be carried.

From the marks on some of the sling-stones obtained by me, they appear to be first rudely shaped with the native jade-axes used by the aborigines of New Caledonia, some of which rival those of New Zealand: although I think the jade stone of that country is of a greener and purer colour than the "Nephride" of New Caledonia, judging from the pieces I saw. After the sling-stones have been shaped as nearly as possible to the proper size with the axes, they are finished in the holes in the rocks I have already described, or in similar ones.

I lately obtained an old print (dated 1809), representing: "The Massacre of Part of the Crew of the Vessel of Perouse at Maouna, one of the Navigation Islands" in the Pacific. It is stated that "in the unfortunate affray Captain de Langle and nine seamen were massacred." The engraving represents the natives attacking two of the ship's boats with hand-stones and sling-stones, and the description says: "The inhabitants of the Islands of the Navigators, of which Maouna is one, are very dexterous with their slings, and when they take aim rarely miss their object." On the left of the picture one of them is seen carefully adjusting a stone in his sling, fearless of danger, though threatened by his enemies.

It may be remembered that La Perouse, who is here mentioned, was the French circumnavigator who sailed from Botany Bay, in Australia, in 1788, with the ships
Boussole and Astralobe, and who was never afterwards seen, nor his ships; neither was anything known about their fate till 1826, when Captain Peter Dillon, in the ship St. Patrick, discovered a quantity of things which fully established the fact of the two unfortunate French ships having been lost at the Island of Vanikolo (now also called La Perouse's Island, in honour of the commander of the ship. China, silver spoons, and other articles marked with a fleur-de-lis, French money, brass guns, &c., were found by Dillon, and taken by him to Paris. The natives said the ships had been lost in a dreadful hurricane many years before; most of the crews were drowned, some were killed by the natives, others built a small boat and left the island, but were never again heard of.

The natives of New Zealand—so far as I am able to find out—no longer use the sling; and when I was there (some twenty-five years since) I saw no trace of any such weapon. The "Pakaha Maori," the author of "Old New Zealand," writing about 1863, says, in speaking of the hill forts constructed by the natives: "When an enemy attacked one of these places, a common practice was to shower into the place red-hot stones from slings, which, sinking into the dry thatch of the houses, would cause a general conflagration," p. 201.

I have endeavoured to discover if sling-stones were still used in any of the South Sea Islands, except in New Caledonia.

The Rev. Dr. R. H. Codrington, of Wadham College, Cambridge, who has only just returned from the South Pacific, says that in the Banks Islands slings are used by boys as an amusement for killing birds. "In former days they were used in war by those who were skilful in their use, principally for sending stones along the paths by which a village might be attacked in the night. From time to time stones were slung down these paths in the darkness. The stones were not shaped, only chosen of suitable weight. A sling is called talouva."

"In the Solomon Islands slings are used chiefly as an amusement. But a native of Florida Island told me that in his younger days they were not known in his village,
and that they had since come into use as good weapons for assaulting the tree-houses, to which the natives of the Island of Ysabel retire, as to forts. The Florida name of a sling was taken from that of these tree-houses." Dr. Codrington also said that he could not remember to have seen any Milanesian slings, but thought that "Savage Island" was a great place for slings.

The Rev. Alfred Penny, in reply to my inquiries, states that he always considered it a strange fact that the use of the sling, as a weapon, is entirely unknown in the islands of the Solomon group, with which he was familiar, viz. San Cristoval, Malaya, Guadalcanar, the Floridas, and Ysabel; but he adds that he once read that slings were used in the islands at the north-west extremity of the Solomons; and further says he has never seen the sling employed except as a toy of the rudest kind. Although well acquainted with the New Hebrides, the Loyalty Islands, Banks, and Santa Cruz islanders, he had never heard of the sling being in use there. I can, in a good measure, confirm this, having myself visited most of the islands above named.

The spear, cross-bow, and club, are the weapons of these islanders. Mr. Penny says that in the Santa Cruz group, archery is carried to perfection.

In conclusion, I would say that it is only too probable that as civilization advances, and spreads through the many groups of lovely coral-bound, or volcanic islands, of that great southern expanse of water which has become known to us under the pleasant-sounding name of the Pacific Ocean—though at times and seasons it ill deserves the name—and as the white man bartersthe tortoise-shell, sandal-wood, ebony, and other products of those islands, and pays the ignorant natives in tomahawks, and such like, a few years more, and perhaps before this century closes, we may hear of slings and sling-stones merely as things of the past—to be found only in the museums of civilized nations.