

ON BRONZE OR BRASS RELICS, CELTS, &c.,

FOUND IN SUSSEX.

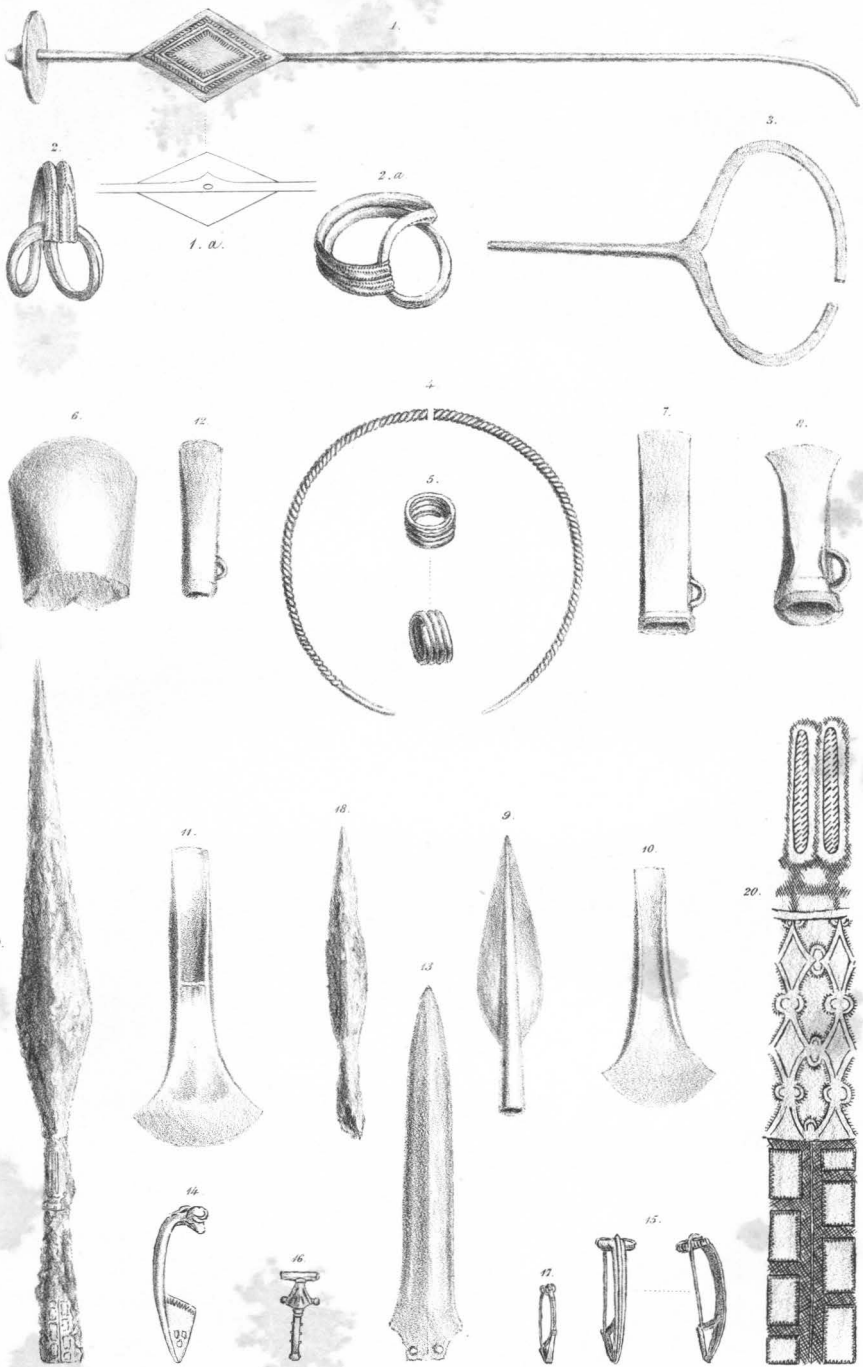
By FREDERICK DIXON, Esq.

READ AT THE MEETING IN AUGUST, 1848.

THE frequent discovery in England of bronze* weapons, and instruments of various shapes, and the great number that are found in Ireland and on the Continent, is a convincing proof that this compound metal was much used by the early inhabitants of Northern and Western Europe, and most probably long before iron. Bronze celts, as they are called, deriving their name from the first settlers in Europe, who were called Celtæ, seem to have succeeded the rude flint and stone hatchets of barbarians; and it is a curious fact that the weapons of uncivilized people should so much resemble each other. I have specimens from England, Ireland, France, America, Australia, and the islands in the Pacific Ocean, all similar to each other in their shape and character, made most likely in the same manner, and differing only in the material of which they are composed, being of the hardest stone or substance in their respective countries.

So much has been written on this subject by our early

* I have called all these relics bronze, though similar weapons are described as brass and bell-metal. Some celts are pure copper. Commonly speaking, bronze is an alloy of copper, with about ten per cent. of tin, together with small quantities of other metals which are not essential to the compound. The best brass consists of four parts copper to one of zinc. The bronze of the ancient Britons is generally a mixture of copper and tin only. In the Philosophical Transactions for 1796, p. 395, the analysis of three British weapons is given: a spear-head was composed of one part tin to six of copper; a celt, one of tin to ten of copper; and a dagger or knife, one of tin to seven and half copper. In some ornaments and weapons, silver, lead, and zinc have been detected.



Geo. West del et lith.

Reeve, Bonham & Reeve imp.

Bronze relics &c. found in Sussex.
Engraved one fourth their size.

antiquaries, and many excellent modern papers have appeared, that I shall limit my observations as much as possible.

Some historians have asserted that the first inhabitants of this country were indebted to the Phœnicians for their bronze or brass instruments, who traded with them before the Trojan war, and that weapons made of a mixture of tin and copper were exchanged for the native metals of lead and tin, which are found in such abundance in Cornwall and the Scilly Islands. This certainly might appear to some persons a reasonable mode of traffic with a people who have also been described as poor savages, having beards like goats; though from this fact, if we may judge by the fashion of the present day, no conclusions can be drawn, as the wearing of beards is not marked by the absence of knowledge or refinement in manners.

The history of this country before the Roman invasion must be in a great measure conjectural, and we have no right to suppose, from the shape and character of these ancient instruments, that they were imported from Greece or Phœnicia.

The first bronze weapons which the early Britons possessed were most probably imported from the Continent; for Diodorus Siculus, who wrote about forty years before Christ, gives an account of the method of working the mines in Cornwall, and says the produce was conveyed to Gaul. Pliny says also that the Romans learnt the method of tinning their culinary vessels from the Gauls, and at a later period workmen were taken from Gaul to Rome, having a better knowledge of making bronze than any other country. The brass works and furnaces of the Gauls are described by their historians as existing many centuries before the invasion of this country by Cæsar:—"The Scythians peopled Germany, Scandinavia, and a great part of Gaul, about 500 years before Christ, and the Belgæ of the same stock entered Britain and Ireland about 300. This coincidence with history, and the suggestions of the classic poets, will date our large sepulchral structures of earth, in which the brass arms are usually found, at least to two centuries before the Christian era."—Douglas's *Nenia Britannica*, p. 152.

"The proof that the ancient Scythians used entirely brass arms is obvious from Herodotus; and admitting the Belgæ

to be of the same parental stock, the brass arms will then be found among the Belgic Gauls of Britain. The facility of casting these weapons, for they all appear to be so fabricated, would, in the most expeditious manner, arm an immense body of men ; and, unless the necessary conveniences of forges and other operose arts to complete missile weapons of iron were at hand, it is very natural to suppose, notwithstanding the preference of iron, that brass arms would become of general use till such conveniences had taken place."—*Ibid.* p. 152.

The early Britons knew that their country produced valuable metals, which the Gauls and other nations traded for ; but at first they had no knowledge of working these metals themselves ; how long they continued in ignorance, and the time when the first bronze instruments were made in this country, will most likely remain for ever a mystery, though it was certainly many years before the Roman invasion.

Celts or axe-heads were cast, and may have been used for a variety of purposes.

In the 'Archæologia,' vol. xv, plate 34, is a representation of a stone mould for casting spear-heads. The British Museum, and other collections, contain copper moulds found in this country, used probably for the same purpose. Mr. Britton possesses one of these curious relics. Lumps of metal ready for use have been also found in England. Mr. M. F. Tupper discovered at Farley Heath, Surrey, in 1848, a mass of metal ready for casting, with Romano-British relics.

When Cæsar invaded this country, iron was a much more valuable metal than brass ; for he says, in his 'Commentaries,' that it was so scarce, that the Britons used it for money, and prized it as much as other barbarians did gold : yet it bespeaks a more advanced knowledge of the art of working metals. British chariot-wheels were also bound with iron. Sir Richard Hoare mentions that in Somersetshire the remains of some British chariots were discovered, with instruments of brass and iron, and that the wheels of the chariots were hooped round with iron, but they were of very slender workmanship. Instruments of iron are rarely found in this country, and this is not to be accounted for by their more ready decomposition and decay, for the same circumstance has been noticed by the historians of Gaul. The Greeks understood the method of

tempering iron; for Homer describes, in the ninth book of the 'Odyssey,' the firebrand driven into the eye of Polyphemus as hissing like hot iron immersed in water.

Tin was probably the first metal which the ancient Britons had any knowledge of working. The inhabitants of Cornwall and the Scilly Islands had the art of refining this metal some centuries before the Roman invasion. The earliest British coins are supposed to be of tin.

A most valuable work, edited by the Right Hon. the Earl of Ellesmere, was published last year, called 'A Guide to Northern Archæology.' It contains so much that is essential to my subject, that I cannot do better than by making some extracts from it:—"It will not be difficult to conceive, what we moreover find in reality the fact, that the Scandinavian antiquities, both those belonging to the ancient heathen period, and those of the earliest Christian times, have a great resemblance to the British and Irish, so that, when accurately examined and described, they mutually explain and elucidate each other."—Page ix of the Introduction.

"Of the different periods to which heathen antiquities may be referred.

"THE AGE OF STONE, or that period when weapons and implements were made of stone, wood, bone, or some such material, and during which very little or nothing at all was known of metals."—P. 64.

"THE AGE OF BRONZE, in which weapons and cutting implements were made of copper or bronze, and nothing at all, or but very little was known, of iron or silver. Not in the North only, but also in the countries of the South, it will be found that the metal of which mention is first made, and which first came into use, was copper, either pure, or, as it was frequently used in ancient times, with a small addition of tin for the purpose of hardening it, to which alloy the name of bronze has been given. It was not till a much later period that they became acquainted with iron, the reason of which seems to be, that copper is found in such a state as to be far more easily distinguishable as a metal than iron; which, before it can be wrought, must first undergo the process of smelting and purifying by a strong heat, an operation of which, in the earliest ages, they must have been ignorant. We should assuredly commit a great mistake in supposing the bronze

articles to be imitations of those from the palmy days of the Romans, or that they were fabricated at that period in southern countries and thence conveyed through the channel of traffic to Germany and the North. It is to be remarked, that by far the greatest number of antiquities of this description are found precisely in the more distant countries; for instance, in the North and in Ireland, where it may reasonably be supposed that contact with the Romans was slightest. Moreover, it was not before the conquest of Gaul by Julius Cæsar, and his advance to the Rhine, that a firm and permanent connexion was formed with the interior of Germany, but long before that time the Romans had their weapons and cutting implements of iron."

"To this age belong the stone chests and the small sepulchres covered with heaps of stone; this was, strictly speaking, the age of cremation, the larger sepulchral chambers being no longer required. The burnt bones were kept in urns, or deposited in stone chests. In the urns of this period we very often find at the top a pin, tweezers, with a small knife of bronze; and to this age belong also the celts and palstaves of bronze, which are of so frequent occurrence. Articles of gold and of electrum are likewise found, but never of silver. No instance is known to us of writing being found on any specimen belonging to the bronze age, although the workmanship in other respects evinces such a degree of skill, as would lead us to suppose that the art of writing could not have been unknown at that period. It does not by any means follow, that because they had metal they should have entirely ceased to employ stone, and that so much the less, since metal was doubtless expensive at first, for which reason they strove to avoid using it in the fabrication of heavy articles. Most articles of metal were at this period fabricated by the process of casting; but when they were hammered, we can scarcely err in supposing that operation to have been performed with a stone hammer or a stone anvil."—Pp. 65-66.

"THE AGE OF IRON is the third and last period of the heathen times, in which iron was used for those articles to which that metal is eminently suited, and in the fabrication of which it came to be employed as a substitute for bronze."—P. 67.

In the 'Archæological Journal' for 1847, there are two

valuable communications relating to bronze celts, by George V. Du Noyer. The first paper is on the classification of Bronze Celts, and the method by which these weapons were fixed in handles, and drawings are given of various celts from the British Museum and Royal Irish Academy. The second notice is on Bronze Celts and Celt Moulds of Stone and Bronze, which is illustrated by four plates of different celts and moulds, principally from the Royal Irish Academy.

I have had frequent opportunities of seeing collections of celts and weapons found in Ireland; and, through the kindness of the Right Hon. the Earl of Enniskillen, my cabinet contains many curious examples; nor can I forget some very agreeable days passed in Dublin with my friend Professor Owen, when Robert Ball, Esq., entered fully into the character and supposed use of celts.

Description of the Plate.

The relics and weapons are engraved one fourth of their size, and are of bronze, except those particularly mentioned.

For explanation of Figs. 1, 2, 3, I beg to refer to the following letter, addressed to me by Martin F. Tupper, D.C.L., F.R.S.:

“Furze Hill, Brighton, Nov. 1, 1848.

“MY DEAR SIR,—At your suggestion, and by the request of several influential members of our County Society, I venture to put on paper a likely fancy, rather than a staid fact, respecting the singular articles figured above.

They may briefly be described thus:

1. A curved staff, or blunt hook, of rounded metal, 20 inches long, with a boss at the handle end, and a diamond-shaped plate, 4 inches from the boss; beneath which is an aperture, seemingly for a string or wire.

2. A pair of very rude and heavy bracelets, too small to have been forced over any but a female hand, and weighing 9 oz. each.

3. An oval rim $4\frac{1}{2}$ inches by $3\frac{1}{2}$, with a prolongation for insertion into a handle. All the objects are of ancient brass.

I understand that these relics were discovered lying all together by some labourers in making a road on the Downs

between Lewes and Brighton in 1832, with the dusty remnants of a skeleton.

Without affecting to do more than hazard a fair guess at the use and nature of the relics, I may say at once that I cannot suppose the bracelets to have been intended for ornament, nor the hook to have been a weapon, or a staff of office, or a fire-stirrer; while the oval frame is too manifestly of the shape of an ancient mirror, not to be suggestive of my whole, rather *speculative*, but still probable, idea. And, in truth, this skeleton of what may well have been a speculum, made of some more perishable material, as horn or bladder, or other diaphanous substance, is the seed of the opinion which I entertain about all the three objects so found together; an opinion, perhaps a fancy is the better word, which, for want of a better, you and others seem to regard as both new and near to truth.

In few words, then, I suppose—

No. 1, to be a divining-rod.

No. 2, heavy bracelets, meant to steady the wrists of the young druidess, or other sacred damsel, upon whose thumbs the divining-rod was to be balanced by the points of the diamond, while from the hole underneath depended a plummet.

And 3, to be the magic speculum, of some transparent substance strained over the oval rim, and long since decayed away; whereby the superintending seer pretended to discover the nature of the treasure indicated by the divining dip.

It would certainly, upon this hypothesis, have been more satisfactory to have had a plummet to show, as of the same find: but, even if search had been made for such a thing, which was not the case, a small metal weight, or a stone with a hole in it, might easily have been overlooked among the rubbish of a cairn. And it is, at all events, gratifying to know that the rod is a true balance from the points of the diamond plate; also, that a plummet-line from the hole beneath at *l a*, would serve to show the perpendicular, and therefore any deviation from it, while those weighty bracelets, tightened up the arm, would steady the trembling damsel's hands for her delicate manipulation.

Divining-rods, as I need scarcely inform my archæological associates, were in frequent use among the sages and seers of old time, who always had a ready reply to the infidel objection

of no effects; that if you dig deep enough, you were sure to reach the promised treasure—water, at any rate, was pretty certain to be struck at some depth or other; and, on the Pindaric and Preissnitzian principle of *ἀριστόν μιν ἰδᾶν*, the divining-rod was warranted to tell truth, and the seer's sapient reputation was easily augmented. Forked sticks of hazel were, however, principally used for this unerring experiment; and I am free to confess that I, for one, do not know of any other divining-rod of metal, nor have heard of one: nevertheless, as it seems to me that I have *seen* one—this one—in your museum at Worthing, I take leave thus to announce to others in what light the relic has appeared to myself.

I remain, my dear Sir, truly yours,

MARTIN F. TUPPER.

Frederick Dixon, Esq., F.G.S., &c.”

Fig. 4. Torque, an ornament worn round the neck.

This beautiful and very rare specimen is from Dr. Mantell's cabinet, and was found with four armillæ at Hollingbury Hill, near Brighton, similar in shape and size to Fig. 2, but not ornamented, and differing in weight; one is 8 oz., another 6 oz., the third $3\frac{1}{2}$ oz., and the fourth only 3 oz. Torques and armillæ of pure gold have been discovered in England, Ireland, and on the Continent.* Fig. 5. One of two rings,

* In the 'Archæological Journal,' No. 21, is a memoir on Gold Armillæ and Ornaments, &c., by Albert Way, Esq.—P. 59: "Three interesting relics of this nature, found with earthen vessels and bones on the Downs, near Patcham, Sussex, were kindly communicated to the Institute by Colonel Paine, of Patcham Place, through Mr. Blaauw. One of them is formed of copper, thickly plated with gold. A representation of one specimen is given (No. 16, faces p. 56), weight 2 oz. 5 dwts. 6 grs.; the inner side is flat, with rather angular edges. On being assayed, the gold was found largely alloyed with silver (in the proportion of 5 oz. 6 dwts. 18 grs. pure gold, and 6 oz. 5 dwts. of silver in the pound Troy). The plated ring weighed 4 oz. Four gold armillæ of very similar type, but less massive, had been found, in 1806, on the shore near Eastbourne, immediately under Beachy Head, with a bronze spear, five celts, a portion of a bronze sword, and lumps of copper, apparently very pure.† They were sent to the Society of Antiquaries by Mr. Holt, a watchmaker, of Eastbourne, and sold through the late Sir Joseph Banks. The weights were 3 oz. 1 dwt.; 1 oz. 10 dwts.; 18 dwts. 2 grs.; 16 dwts. 4 grs. A figure of one is given in 'Archæologia,' vol. xvi, plate 68."

† A considerable mass of the cliff had fallen with a portion of the sword about Christmas, 1806; and one of the celts being noticed projecting from the newly-buried face of the cliff, search was made, and the antiquities found on the shore; it was supposed that they had been deposited with bodies interred on the height above, but no signs of a tumulus appeared.

the same size and shape, found also at Hollingbury Hill, from Dr. Mantell's cabinet. Fig. 6. Part of a smooth chert celt, of usually good workmanship, found at Sullington. Colonel Ayre, R.A., found a very perfect flint celt at Cisbury, a few years ago. Fig. 7. Celt discovered at Hollingbury Hill, from the cabinet of M. F. Tupper, Esq., a rare shape. Fig. 8. Celt found on Plumpton Plain, near Lewes. This is a common shape, and probably of a late period; Dr. Mantell's cabinet. Fig. 9. Spear-head, found on the Downs near Lewes, Romano-British period; Dr. Mantell's cabinet. Fig. 10. Celt, found on Plumpton Plain, near Lewes. This shape, with a little variety, is often met with, but seldom in such good workmanship. I have much pleasure in engraving for our archæological volume these valuable relics belonging to Dr. Mantell, who has done so much towards the history of our county.

Fig. 11. Celt belonging to Henry Catt, Esq., found near Brighton. I have seen several examples of this shape from Sussex. A similar one is in Dr. Mantell's cabinet, and was discovered with the other relics at Hollingbury Hill. The Rev. W. B. Otter possesses one, found on his glebe at Cowfold; in a note received from him, he says: "It was discovered by some workmen $2\frac{1}{2}$ feet below the surface, digging for stone; there was no irregularity in the surface of the ground, or anything remarkable about the spot; with it there was discovered a spiral bronze ring of about six folds and little more than an inch in diameter. I do not know another instance of a celt found in the Weald. I may remark that our wet clay is not calculated to preserve any bones or animal remains, and probably for this reason nothing of the kind was found on searching." This character of celt is often discovered in Ireland and on the Continent. Fig. 12. Small celt found at Brighton near the Church, similar to some in the British Museum, discovered at Jersey, and also in the valuable cabinet of T. Crofton Croker, Esq., F.R.S., &c., found in Normandy.

Fig. 13. British weapon, in excellent preservation. It is covered with a black patina of tin, and was found at Bracklesham in the fossil bed containing so many shells of the *Venericardia planicosta*. The countryman who found it told me, with much simplicity, that "he thought he had discovered

the knife by which the former blockaders opened those large cockles with, as them fish must have been very good to eat."

In Sir R. Colt Hoare's 'Ancient History of Wiltshire,' at pages 122 and 208, are British daggers, similar to fig. 13.

Figs. 14 and 16. Fibulæ, found near Horsham, in a grave, with Romano-British relics.

Fig. 15. Fibula, found near Brighton, from Mr. Henry Catt's cabinet; at page 134 in Douglas's 'Nenia,' are two fibulæ very similar to this, found in Kent. It is a common shape, and most likely of the Romano-British period.

Fig. 17. I found this delicate fibula myself on Lancing Downs; Romano-British period.

Fig. 18. Saxon spear-head, of iron, found near Brighton, with a skeleton, long iron sword, umbo of a shield, and small urn.

Fig. 19. A beautiful Saxon spear-head, which was given me by Mr. Hampton, ploughed up in 1847 on the Downs at Coombs, near Steyning. It is of iron, partly covered with silver, and ornamented. I have not been able to discover in the British Museum, or in any private collection, a spear-head similar to this. At page 26 in Douglas's 'Nenia,' there is represented the umbo of a shield, ornamented at the top with a thin plate of silver, and two heads of iron spears, found in the same pit at Ash, in Kent.

I discovered a Saxon iron knife in a tumulus, about 300 yards from the place where the spear-head was found.

Fig. 20. Magnified view of the ornament on the silver handle of the spear-head.

Worthing, June 4th, 1849.