SCANDINAVIAN BROOCHES FOUND AT SANTON, IN NORFOLK.

During the course of the year 1867, some men, employed in raising gravel at Santon, in the county of Norfolk, found a skeleton, laid at full length, and about two feet below the surface. The spot, where the burial had taken place, is on the slope of the hill to the north of the church, and at no great distance from the river Ouse. With the skeleton were found an iron sword, and two bronze brooches.* The sword and one of the brooches passed, at once, into the hands of Mr. Goddard Johnson, the then tenant of the farm, by whom they were given to the Rev W. Weller Poley, the Rector of Santon, in whose possession they remain. The other brooch was sold by one of the workmen to Mrs. Buckenham, of Brandon, by whom it was most kindly given to the writer, in February, 1869.

From the distinctive character of the sword and brooches there is no difficulty in identifying the people to whom the buried warrior belonged. The brooches are Scandinavian in type, and of a class, which is not unfrequently found in Norway, Sweden, and Denmark, specimens of which are figured in Worsaae, Nordiske Oldsager, Nos. 419-422;† nor can we have much difficulty in affixing an approximate date to the time of the burial. The middle of the ninth century saw the Danes in possession of parts of East Anglia, from whence their conquests extended into Mercia; and from that time until far into the eleventh century, with various vicissitudes, the Danish rule prevailed in the district, in which these Scandinavian relics were discovered. Thetford, which is close adjoining to Santon, was the scene

well adapted for casting them as bronze would be.

^{*} I use the term bronze conventionally, because these brooches have always been spoken of as being made of that metal (copper and tin). It is probable that they are made of copper and lead, which is a less costly compound, and as

[†] Several are engraved in the second volume of Samlingar For Nordens Fornälskar. Stockholm, 1824.

of well known conflicts, between the native forces and the invaders, and suffered more than once in the strife: it was burnt in 1004,* and again in 1010;† in both cases after a severe battle. If we may be allowed to form a conjecture—and here we can do so with much probability—we may regard the once owner of these very interesting specimens of ancient art and warfare, as some Danish leader, who met his death sometime during the tenth or following century; and very possibly in one of the many battles which then took

place in the locality where they were found.

As the occurrence of brooches of the same type has not been very frequent in Great Britain, it may be desirable to place on record in this paper, the localities in which they have been discovered, together with a short account of the circumstances of each find. It will be seen from this that they have usually been found, either near the coast, or upon some great line of road; and this is what we might look for, and seems to point to their owners having been engaged upon some predatory expedition, when they met their death, rather than to their having belonged to persons in quiet possession of the country. The fact that they have not been found, except in one instance, associated with other burials, or in a cemetery, but as isolated interments, seems to point to the same conclusion. They always occur in pairs, and at the shoulders, having been the ordinary fasteners of the outer garment, the remains of which have frequently been preserved on the inside of the brooch.

The sword, which accompanied the burial at Santon, is of ordinary Scandinavian form; it is now $31\frac{1}{2}$ inches long, but has lost a portion at the point; the grip of the handle is $3\frac{1}{4}$ inches long; and the guard, which is curved, is nearly 4 inches wide from point to point.

The brooch, the shape and ornamentation of which will be best understood from the engraving, is $4\frac{5}{8}$ inches long by $3\frac{2}{8}$ inches wide, and $1\frac{5}{8}$ inches high, having at the back and cast with the inner plate of the brooch, a hinge, upon

^{*} Anglo-Saxon Chronicle, ed. Thorpe, † Anglo-Saxon Chronicle, vol. 1, p. 264. vol. 1, p. 254.

which the iron pin moved, and a catch into which it fastened; this latter has been broken, and replaced by a new catch, which is rivetted upon the plate. Upon the concave back of the inner plate of the brooch—and the same appearance is found upon almost all the specimens I have had an opportunity of examining—is seen the impression of cloth, evidently formed in the casting, and quite distinct from oxidised portions of the wearer's dress, which occur upon some of the brooches. It would seem from this, that the plate was cast in a mould formed in this way: a block of stone was hollowed into the shape of the plate, in this hollow was laid one or more thicknesses of cloth, and upon that was placed clay, which was pressed down upon the cloth. The cloth was then removed, and so a mould of the requisite thickness was made, in which the plate was cast. difficult to account for these impressions in any other way; and a skilful bronze caster has informed me that such a proceeding would answer admirably for the purpose. whole of the mould could not have been made of clay, for if so, the impression would have been seen upon the convex surface of the plate, of which no appearance is found upon any of those I have examined. Attached to the edge of the brooch, on the inner side, are some remains of the owner's dress, of linen fabric, which has been preserved by becoming impregnated with the oxide of the iron of the pin. brooch is formed of two plates, the larger and inner one, having the ornamental part confined to that portion which is below the line immediately beneath the pierced bosses, the upper plate being ornamented with richly figured open work and bosses over the whole surface. The entire brooch has been cast, and the ornamental part has been afterwards sharpened, and made clearer and more effective by having been chased. Both plates have been gilded, and the gilding of the lower shows through the open work of the upper plate, and very much enhances the rich appearance of the whole. It will be observed that the running pattern upon the inner plate is divided by square projections, which narrow towards the top, and are ornamented, each with three

circles, having a point at the centre; the two outer of these squares, upon each side, have two holes pierced through the plate at the top, and two others at the bottom, apparently to fix something to the back, probably a strip of leather or cloth. The edge of the brooch has been damaged at one point, and a new piece of metal has been rivetted upon the

edge to repair it.

The ornament, of which the engraving gives an accurate representation, is composed of six elements, if we count the gilding as one. The first and most important, and which must be taken in connection with the second, the pierced work, being a very elaborate pattern of interlacing or knot work, which is, in some measure, zoomorphic; the heads of animals, after a very conventional sort, being apparent. This type of ornament, which has commonly been known as Runic knot work, enters very largely into all the decorative art of this and an earlier period, in the north western countries of Europe; and is very common in Great Britain and Ireland, upon crosses and other monumental stones. It reached its highest development in the wonderfully delicate and intricate designs, which adorn the early Irish Books of the Gospels. It is there found in combination with another art principle, which is, apparently, native to the islands in question, and to which the name, of late Keltic has been given, a principle which is based upon the use of the divergent spiral, and which is entirely absent from classical or oriental design. From the union of these two principles, the interlacing and the divergent spiral, has been produced some of the most exquisite decoration in the world, as witness the Book of Kells, the Lindisfarne Gospels, &c.*

The third and fourth principal elements in the ornamentation of the brooch, are small bosses, the central and the four side ones being of bronze, pierced, and cast with the second plate; the remaining four having been of ivory or paste, and fastened to the plate by bronze pegs. These latter bosses have become decayed, almost entirely, but

^{*} See Westwood, Palæographia Sacra Saxon and Irish Manuscripts. and Miniatures and Ornaments of Anglo-

enough remains of one of them to show that they have not been made of stone, glass, coral, or any other substance which would have better resisted the effects of time. The last element in the decoration is a series of three twisted cords of silver, laid closely side by side, and which pass along a groove in the plate, and run underneath the central, and six of the bosses, forming a figure not unlike that of 8. There are other minute decorative parts, but these are so sufficiently shown in the engraving as not to require any description. It is curious that Mr. John Evans, F.R.S., F.S.A., has a brooch which came from Denmark, and which is so identical in size, form, and ornament, that it might almost have been cast in the same mould with the Santon specimen; but, indeed, there is a very great similarity in most of those which have hitherto been discovered.

It may not be out of place to inquire shortly into the origin of these very peculiar, apparently inconvenient, but handsome brooches, so different from those which were in use at the same time in other parts of Europe;* and which possess scarcely anything in common with Anglo-Saxon or Frankish dress fasteners, where we might naturally look for some resemblance in form and ornamentation. They approach somewhat in appearance to those fibulæ, of late Roman work, which are highly convex;† and which are frequently ornamented with enamel: and it is possible that they are a modification of them, receiving a somewhat different form, and changing the character of the ornament, in consequence of their having been manufactured by a people of different race, and, therefore, of different art instinct, if one may so speak. In some of the details of the ornament

have lost much of the beauty of their prototypes in the process. Nor, judging from the other articles found with them, should I be inclined to attribute an earlier date to them than that to which the Scandinavian ones belong. Several, of both types, are engraved in Kruse, Necro Livonica, Dorpat, 1842; and in Bähr, Die Gräber die Liven. Dresden, 1850.

† One of these found near Chester is engraved in the Journal of the British Archaelogical Association, vol. v, p. 334.

^{*} Brooches evidently modelled upon the type of these Scandinavian ones, have been found in graves in Livonia. They are of two sizes, and differ in other respects. The one is large, and complete in itself; the other which is considerably smaller, has chains attached to it, from which hang various articles—a fashion not unusual in Livonian relics. The larger brooches bear much more resemblance to the Scandinavian specimens than do the smaller; but both appear to me to be imitations, and to

they possess features in common with those we find upon many of the large cruciform and circular fibulæ, which have occurred in the Anglo-Saxon cemeteries of East Anglia and Mercia; but in form they are completely distinct from them. Nor can a certain amount of Irish influence be overlooked in the interlacing portions. At the same time their resemblance is so great to the tortoise, that it is difficult not to recognise some attempt at a representation of that animal. in their form and decoration; and it may be that the Norse rovers, who scoured all the coasts of the Mediterranean, and were at the time continually harassing the shores of Greece, and other adjoining parts, may have brought home a recollection of what to them must have been a very singular creature, and applied it to decorative purposes. this, however, as it may, the form was quite a novel one in the country in which it was used, for nothing, in the brooches or other dress fasteners of the early iron age of Scandinavia, bears the least resemblance to these striking articles of dress. The great moss finds* of Thorsbjerg, Nydam, and Vimose, so prolific of relics of a date about the second and third centuries of our era, present no dress fasteners which at all approach in shape to these in question. We may assume it then as certain, that, however this brooch originated, and whatever its prototypes may have been, that it was no developement of any native form, or modification of what had been in use in Scandinavia in earlier times, but was introduced, about the ninth or tenth century, through a fereign influence, though shewing, in some of the details of the ornament, a type of art very characteristic of the land of its adoption.

In referring to the places where these brooches have been found in Great Britain, it will be useful to take them in order, commencing with Orkney, where at a place near Piero-Wall, under small barrows, several skeletons had, from time to time, been found. In 1839, under one of these barrows, a skeleton was discovered, which was laid on its face, at full length, with the head to the south. Two of the oval

^{*} Denmark in the Early Iron Age, by Conrad Engelhardt, London, 1866.

brooches were lying a little below the head, and about two inches apart. On the right side was something like a sword or dagger of iron; and on the left a sharp pointed metal instrument. Below the face was a metal buckle, with a long pin. Another skeleton was found afterwards, which had two brooches upon it, one on each breast.*

In Caithness, in the year 1786, upon the top of the ruins of a "Pict's House," was found a skeleton, laid under a flat stone. With it were two oval brooches, a ring of jet, or cannel coal, $2\frac{3}{4}$ inches in diameter, and a bone pin. These articles, with the exception of one of the brooches, are preserved in the Museum of the Society of Antiquaries of Scotland.† The brooch is $4\frac{1}{4}$ inches long, by 3 inches wide. The ornament is of the usual character, and appears



to have been tooled after it was cast. It has five metal bosses, the central one not being cast with the plate, but rivetted upon it. The four side bosses are in the shape of

* Journal of British Archæological Association, vol. 11, p. 328. At page 331, is given an engraving of one of the brooches, which does not, however, appear to be very accurate. It is of the usual type, and had once had seven studs of bone or ivory, which have gone to decay. The brooches, with a sword, spearhead, part of the iron boss of a shield, a bronze buckle, with long pin, and a bone comb, are now in the collection of the late Mr. Bateman, at Lomberdale House, Derbyshire. They are noticed in the catalogue of his museum,

at pp. 169 and 170, where engravings of the brooches, the buckle, and bone comb are given; and in Wilson's *Prehistoric Annals of Scotland*, vol. II, 305, where some of the engravings are repeated.

**This is engravings are repeated.

† This is engraved in the Catalogue of Antiquities, exhibited in the Museum of the Archæological Institute, at Edinburgh, p. 26; and also in Wilson's **Prehistoric Annals of Scotland**, vol, 11, 265, from which work the above representation has been kindly permitted to be used by the publishers, Messrs. Macmillan and Co.

horses' heads, when the brooch is viewed endways, but seen from above the upper part of the neck of the horse is worked into a different head, which has as much the appearance of an ox's as of a horse's head. Both the upper and under plate have been gilded, and the upper one, besides the metal, has had six bosses of ivory or paste, which are

now entirely decayed.

One* was found, with a skeleton, in the island of Sangay, between Uril and Harris. With it were a brass pin, and a brass needle. There have been nine bosses, all of which have been of some material which has entirely decayed. There seems to have been only one plate, and the brooch bears a very strong resemblance to one preserved without any note of its place of finding, in the Museum of the Society of Antiquaries of Scotland; and it is possible that the latter may be the second one of the pair, for no doubt two were found.

A pair of these brooches was exhibited at the Society of Antiquaries of London, March 5th, 1863, which were discovered by Commander Edge, R.N., in the island of Barra, Hebrides. He found under a barrow, upon which was placed a large upright stone, a skeleton of an old man, laid at full length, his head to N.N.W. By his side was an iron sword, two feet nine inches long; and upon the body was lying what was supposed to be the remains of a shield, made of thin iron rods and wood. "But the most interesting objects in this interment are two oval brooches. or ornaments in bronze, having on them an intricate pattern, composed chiefly of small bosses surrounded by human arms, the hands of which are grasping the wrists of the upper part of other arms, thus forming a very curious interlaced pattern of considerable beauty ... They have also evidently been lined with cloth, as in one of them are the remains of such lining in a very good state of preservation." There were also found, with the body, two bronze tongues of buckles, a whetstone much used, a box-wood comb, and a large clam or escallop shell.†

^{*} Engraved Vetusta Monumenta, pl, xx. + Proc. Soc. of Ant., 2 ser., vol. 11, 229.

Vol. IV. 2 G

Two, found in the island of Islay, were presented to the Museum of the Society of Antiquaries of Scotland, by Colin Campbell, Esq., of Ballinely, Islay, in 1788. They are $4\frac{1}{2}$ inches long, by 3 inches wide, but have not been cast in the same mould. They have upon them a very similar ornament to that on the Santon brooch, with bosses both of metal, and of some material which has decayed. They have along the edge a pattern which is not found upon any of the other specimens; and which consists of a line of diamond-shaped figures, with dots between them. There is no trace of gilding; but the usual cloth impression is seen on the concave back.

Near Claughton Hall, Garstang Lancashire, were found, in 1822, in a barrow which contained an urn filled with burnt bones, two oval brooches, joined together, and enclosing a small ornamental fibula, two beads, one of blue, the other of red coloured paste, and a molar tooth. They had been placed in a wooden case, of the same shape as the brooches, and apparently lined with cloth. small case was again placed in a larger wooden box, together with an iron axe and hammer, an iron spear head. an iron sword, and a stone axe or maul head.* The account of the discovery is not clear; and the way in which the several articles are said to have been found does not seem a very probable one. The barrow was, without doubt, a British one, made use of in long subsequent times, by a Norseman, and to the original burial or burials, the urn, with calcined bones and the stone axe-hammer, are to be referred.

The only other occurrence of these brooches in Great Britain that I am acquainted with, was one or two feet below the surface of the Roman road, from Catterick to Piercebridge, now called Leeming Lane, and not far from Bedale. A skeleton was found there which was said to have had its head transfixed with a long rude square spear head. Two brooches were at the shoulders; one, now in the museum

^{*} Journ. of British Arch. Assoc., vol. articles are engraved. vI, p. 74, where the brooches and other

of the Duke of Northumberland, at Alnwick Castle, is engraved in the Journal of the Archwological Institute, vol. v, p. 220; the second is now in the museum of the Society of Antiquaries of Scotland. They have silver thread and the usual bosses, four of which have been of bone or paste, but are now entirely decayed. There is no appearance of cloth impression on the back of that in the Edinburgh Museum, nor any trace of gilding.

In the Journal of the Archæological Institute, vol. XI, p. 58, it is recorded that Mr. Franks exhibited one of two found in the Phœnix Park, near Dublin; the other was bought by Herr Worsaae, and taken to Copenhagen. That exhibited is $4\frac{1}{2}$ inches long, by $2\frac{1}{2}$ inches wide, and has

upon it the usual kind of ornament.

W. Greenwell.

ENTOMOLOGY IN THE COUNTY OF SUFFOLK.

In inviting the attention of the Society to a paper on "Entomology in the county of Suffolk," I must crave a certain amount of indulgence for the extremely fragmentary and egotistical nature of what I have to say. To work a county successfully would require a number of zealous students acting and communicating together, whereas I have been almost alone in my work, and have of necessity only been able to pursue it operis subsectivis, by fits and starts. Still I have been able to accomplish so much, that this great encouragement may well be held out to all inclined to take up this branch of science, viz., that there is in all probability no county in England, not even excepting Hampshire, the district of the New Forest itself, which