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THE BRONZE SWORD IN IRELAND

BY

GEORGE FRANCIS EOGAN

PART I TEXT

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ABSTRACT

Of the three standard bronzes of the Late Bronze Age - cut-and-thrust swords, plain leaf-shaped spearheads, and socketed axes, the swords were the latest to arrive, but it was their introduction that brought about the disruption of the Middle Bronze Age cultures.

The Irish Bronze swords can be divided into six classes. The earliest swords to reach Ireland, Class I, were contrived around 1,000 B.C. in the region of the Thames estuary and are the result of an attempt to copy the intrusive Erbenheim and Hemigkofen weapons by Middle Bronze Age trained smiths. Class I swords soon spread to Ireland but they may not have had a very long life, for before long the southern English smiths succeeded in producing more exact copies and at the same time a Late Bronze industry grew up. These round and straight shouldered swords extended to Ireland and are termed Class 2 and Class 4 respectively. These two Classes are contemporary and there is also evidence that the South British industry was established in Ireland. Class 3 swords may be the product of interaction between Classes 1 and 2.

Towards the end of the eight century the structure of the Late Bronze cultures was altered. This alteration is clearly reflected in the sword development. There is no evidence that the earlier types continued, instead their place is taken by a truly naturalised weapon, Class 5, that also appears to have originated in Southern England or in peripheral regions. Perhaps around the middle of the seventh century a new sword with a different cultural background, the Hallstatt Iron Age, arrived. This is Class 6. The presence of the hybrid Class 6A sword indicates that Class 5 continued and may have remained in use until supplanted by weapons of the La Tène period.

The research for this thesis was carried out under the direction of Mr. G.F. Mitchell, F.T.C.D. and I am especially grateful for the help and advice that he has given. I also wish to thank the Board of Trinity College, Dublin for awarding a research grant. The work is entirely that of the candidate and at the end acknowledgment is made to those who have helped either with specimens or through discussion. The thesis is not being submitted for a degree of any other university.

George Francis Eogan
1st March 1961

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THE BRONZE SWORD IN IRELAND

by

George Francis Eogan

Approved by the Board



Thesis submitted March 1961 for the degree of Doctor in Philosophy at the University of Dublin

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Introduction

Bronze swords are among the most common of our antiquities. They are of elegant design and their manufacture displays an advanced technological skill. With socketed axes and plain leaf-shaped spearheads they form the standard bronze types of the Late Bronze Age, but they give a more precise indication for the start of that period than either the axes or spears whose origins have not been satisfactorily established. The swords stand on a firmer footing, for as a result of the comprehensive researches of Mr. John D. Cowen (1951) the anticedents of the earliest British swords have been traced to the Late Urnfield Cultures of South-west Germany and their chronological status established. But despite this the Irish bronze swords have not been studied systematically or in the light of recent research. No doubt, they have for long attracted attention and have been briefly mentioned by Wilde (1861, 439 ff,) Evans (1881,273 ff), Coffey (1913,271 ff), and others.

The purpose of this study is, therefore, to present a catalogue of all the known examples, to attempt a classification on a typological and, as far as possible, a chronological basis and, to determine their origin. The swords are studied against their wider cultural background and their relationships and associations with other types in conjunction with the developing Late Bronze Age will be discussed so as to enable the different groups to be assigned to a more precise cultural horizon.

Numerically the material available is large - there are nearly 600 examples, and these have a wide distribution. To put the material into order presents some difficulties for only about half a dozen swords have been found in an archaeological context, and these are solely hoards which, by and large, give but little assistance in the matter of close dating. There is no recorded instance of a bronze sword

having been placed in a grave in any part of the British Isles. Indeed, one of the puzzling things of the Irish Late Bronze Age is the absence of burials, and, apart from the enigamatical 'flat rimmed-ware', pottery is also lacking. We are therefore forced to rely largely on typology and in this connection we are considerably aided by extending Cowen's "law" (Cowen 1951, 195). This rests on the proposition that the Irish sword is not of native origin but was introduced fully formed from overseas. It follows that the earlier swords should find their counterparts outside the country and that "types that are not represented abroad cannot be our earliest." It is necessary to establish these prototypes and the time of arrival of the sword here, not only from the classification point of view, but the arrival of these weapons should herald the establishment of the Late Bronze Age in this country.

Various uses have been suggested for bronze swords. They were even considered as hatchets by Peake (1933, 86). Others, (i.e. Hawkes, 1948, 200) preferred to look upon them as horsemen's armoury but the suggestion of Gordon (1953, 78) that the bronze sword is an ideal weapon for individual and close quartered combat has much to commend it. The bronze sword has also been known under a variety of names such as "leaf-shaped", "slashing", "tongue-grip", "flange-hilted" and "cut-and-thrust". The latter is a useful generic term, it has been reasonably widely used and has been endorsed by Gordon (1953, 72) for the whole range , as some swords are not truly leaf-shaped, as for instance some of Classes 2 and 6 in particular, and others, lack flanges. It also implies that the weapon served the dual function of slashing and thrusting as the occasion demanded.

The origin of the Irish Bronze Sword and its Cultural and Chronological Background

As the Irish swords are derivative and reached this country by diffusion across Europe, through Britain, it is considered advisable to give an outline sketch of their prototypes and cultural background, a background that is the European Late Bronze Age. For long the conception of that epoch has been a period that was ushered in by dramatic changes that brought about marked technological innovation and of turmoil and migration. The use of clay moulds and improved methods of casting were employed, the technique of hammering became universal and the appearance of founders' hoards, consisting of old and worn metal objects intended for re-smelting, demonstrates that the distributive side of the bronze industry was re-organised. (Childe 1951,184). There is also evidence of increased population and important developments in agriculture, while permanent settlement on a large scale became possible. But as Childe (1948,182,189) has shown the most far reaching changes took place in the economic sphere and it was economic development that brought about the 'industrial revolution' that is the distinguishing feature of the period. The 'revolution' was brought about by the introduction of the technique of deep mining. Its satisfactory use in exploiting the copper resources of the eastern Alps introduced an abundance and cheapness of metal and as a result new varieties of bronze tools, weapons, ornaments and vessels appeared or were developed from less adequate prototypes . Rural economy benefited for the socketed axe was more effective for clearing the forest than the palstave and bronze agricultural implements such as sickles were being made. But what Childe (1951, 181) termed "the destructive industry" benefited equally, for swords and spears became common.

Professor Childe (1948,189) doubted if the

peasant communities of central Europe had either the technical knowledge or the required resources to initiate such an elaborate undertaking, and then to provide a consumptive market for the produce. He considered that the initial impetus was supplied by the rich civilisation of Myceneaen Greece and it is the stimulus of that urban market that brought about the Late Bronze Age. But towards the end of the thirteenth century the old Myceneaen hegemony was slowly disintegrating. Its final decay and the ensuing impoverished period probably resulted in a constriction of that market and may have provoked a westward expansion in barbarian lands north of the Alps (Childe, op. cit., 190).

It appears that simultaneously with the economic and industrial revolution, new burial practices were introduced. These consist of inurned cremations buried in cemeteries of flat graves termed Urnfields. All this points to a growth of population and consequent congestion and the need for expansion. Indeed, the spread of both the metal types and the Urnfields, suggests that the era witnessed population shifts both within and out of Central Europe. We can therefore picture Central Europe around 1,000 and in the couple of centuries before it, as a dynamic area that was the centre of a highly skilled bronze industry with some of its products reaching peripheral communities including England. The Urnfield spread suggests migrations, but these may have been more in the nature of a gradual spread than a major movement.

It is against this background that we must view the origin of the Irish bronze sword. In Europe the bronze sword is widespread and despite local differences there is a marked similarity of form. Long ago Peake (1922,87) divided the swords into seven successive types and based his classification on the shape of the shoulders. His earliest type has convex shoulders, later the shoulder becomes straight and finally the Hallstatt form where the wings are slightly concave. In a very general way this classification

maybe sound enough, but Cowen (1933,190-1 f.n. 12) was, of course, right in commenting that such a classification based on central European forms is much too vague to be of use in a study of the British series where naturalized and regional varieties occur.

The British series has been treated by Brewis (1923, 253-65). He based his argument to some extent, on the assumption that the change from thrust only to cut and thrust did not materially alter the outline of the hilt at first and that as a result the early form has a rounded butt. Accordingly he placed swords with rounded shoulders at the head of the British series and termed them the U type (op.cit., 258). Out of these gradually emerged the straight shoulder V type. His view was for long entertained, but it is no longer acceptable for in fact neither the U nor the V types are the earliest but emerge themselves from central European forms.

The fact that the origin of the earliest British swords has been established is, as previously remarked, due to the work of Cowen (1951). He has shown that during the transitional period from Renicke's Bronze Age D to Halstatt A a virile culture was in existance in Central Europe and the Urnfield civilization had just begun. There at that period, the only flange-hilted swords current were a group possessing a plain hilt and parallel sided blades, features indicating that they belonged to an earlier Tumulus Bronze Age tradition of sword making. These have been named the Nenzingen type by Cowen (op.cit., 206).

Just after the transition, in Hallstatt A, a new type possessing a leaf-shaped blade arrived in the area and this Cowen (p. 198) calls the Erbenheim type. These swords possess a long pointed blade of flat oval section and normally lack a ricasso. The butt is of U form while the grip is flanged and swells gently. Both grip and butt possess rivet holes, but the true distinguishing feature is the presence of a pommel tang. On the continent Cowen (op. cit., 200) has noted only some fifteen examples of the Erbenheim type,

the greatest concentration being in the Rhineland. Further to thewest in France and Holland one or two isolated examples have been found and finally three examples occur in England, all recovered from the lower reaches of the Thames valley. In west central Europe the type appears fully formed and Cowen (op. cit., 206)thinks that it came from more advanced metallurgical regions lying further east but the exact place of origin is not yet known. Their arrival, it seems, caused the abandonment of the straight sided blade and the Nenzingen type was transformed into a new weapon - the Hemigkofen (named from a grave group just north of Lake Constance in Hesse) which became its successor (Cowen, op. cit., 206)

The Hemigkofen sword has a short leaf-shaped blade of lozenge section. The ricasso is inconspicuous but an incised line usually follows the outline of the blade. The butt approximates to a V shape, the grip is flanged and both have numerous perforations.

From their original source in south-west Germany and Switzerland Erbenheim and Hemigkofen swords spread westward (Cowen op. cit., 197. Map A) and as Cowen pointed out the small numbers suggest that this was the result of trade or the activities of travelling smiths rather than migration.

The Hemigkofen swords are more common on the Continent and have a wide distribution. Cowen (op.cit., 196-9, Map A) lists some thirty examples. In addition to their homeland they are concentrated in the central Rhineland, but a westward spread is indicated by their occurance in France and Belgium. In Britain about four of these swords are known, but, like the Erbenheim, their distribution is confined to the area of the Thames estuary. The presence of a small number of hybrids, the Letten group, which occur in southern Germany, Switzerland and even in France confirm that the two types are contemporary and it would therefore appear that both arrived in southern England simultaneously. In the history of sword development in Britain and Ireland these two sword groups are of paramount importance for they are the precursors

of the native series of U and V shouldered swords. Furthermore the associations indicate that normally the Nenzingen sword belongs to the transitional period from Renickes Bronze Age D to Halstatt A (Cowen, op. cit., 204). Sometimes the type lasted into Hallstatt A but only to the initial phase. The Erbenheim type with its leaf-shaped blade did not arrive till immediately after the transition and as the Hemigkofen sword is adapted from the Nenzingen under the influence of the leaf-shaped blade it may be assumed that the Hemigkofen did not come into existance till early Hallstatt A. It is therefore important to establish the dateof the beginning Halstatt A.

Now, swords of the Nenzingen type occur in an eastern group of Urnfields that began at least by 1,200 B.C. This is shown by Mediterranean connections largely established through fibulae (Smith 1959,183). In the eastern Mediterranean comparable swords occur in contexts that place them in the period contemporary with, or shortly after, the fall of Mycenae. At least none are considered by Catling (1956, 106-7) to be earlier than 1,250 B.C. Generally speaking this should give an early 12th century date for the parent central European type.

Other cross-datings have been provided by Cowen (op.cit.,207) and he has suggested synchronisms between Hallstatt A and Montelius III B. Miss Smith (1959,182) has now questioned these cross-datings which, in the first instance, were based on the work of Sprockhoff. She has shown that they were argued from an eastern group of Middle European Urnfields (also called Hallstatt A) and there are different from the western group that contains the early swords. The eastern group is earlier and it is not justifiable to transfer cross-datings established between these and the north on to Western Hallstatt A which began later on which she correlates with Montelius IV. Miss Smith (op. cit., 183) contends that Western Halstatt A must have received the Nenzingen sword by abut 1050 and consequently, as England received the unmodified forms, the earliest leaf-shaped swords (related to Nenzingen) must have

reached the Thames by about 1000. Furthermore the transition from Montelius III to IV also marks the date of the last recorded North-European influence on 'ornament horizon' bronzes in England (Smith op. cit., 160,183) and as the arrival of the swords appears to have brought to an abrupt end the southern English Middle Bronze Age, This independent evidence points to a similar date. In the history of the Irish swords this is an important event for, presumably, swords could not have arrived in Ireland before that date.

Concluding this section it might be useful to refer briefly to the ultimate origin of the cut-and-thrust sword. Peake (1922, 87) considered that his earliest type developed on the plains of Hungary. At any rate most authorities agree that the bronze sword evolved in Central Europe (Kendrick and Hawkes, 1932, 124) and from that region it also spread south perhaps as a result of the raids of around 1,200. Professor Childe (1948, 283-5) has, however, cast some doubt on Central Europe being the place of origin and to support his view he draws attention to the east Mediterranean group of swords such as the tanged sword form Alaça Hüyük in Amatolia and Ras Shamra is Syria and notes that the best dated example (from Egypt), bearing the cartouche of Seti II (1214-1209 B.C.), is made of iron. On this evidence Childe thought that Hither Asia has as good a claim to the invention of cut-and-thrust swords as Central Europe. Professor Hawkes (1948, 200) carried the argument further and noted that chariot warfare was then in vogue in the near East and that the sword may have been connected with this warfare as a cavalry weapon. Hawkes further notes that the grip tongue appears early in the Aegean, occurring on rapiers going back to the Mycenaean shaft graves. The sword, he thinks, could perfectly well have come to Europe from there and not vice versa.

More recently this East Mediterranean group of swords have been the subject of a detailed study by Catling (1956, 120 ff) He has pointed out that the Alaca Hüyük sword dating from the end of the third millennium B.C. is in

isolation and as such is meaningless and that if the Ras Shamra swords have anything to do with the other cut-and-thrust swords it will be of a derivitive nature. Catling does, however, accept Childe's rejection of a central European origin and seeks it in Greece perhaps as the products of the ingenuity of some Mycenaean armourer.

Still to my mind the claim of Central Europe has not been satisfactory demolished. The straight sided blades of Mediterranean cut-and-thrust swords seems to relate them to the Nenzingen sword and those, as we have seen, were current in eastern Urnfield contexts which began at least by 1,200. The evidence deduced by Catling points to a date after. 1250 and all the swords that came from reliable contexts can be put at about 1,200 (Catling, op. cit., 106) Therefore, the evidence does not seem to be sufficient to postulate an east Mediterranean origin for the cut-and-thrust sword. The central European claim is still sound for that area, too, had its cut-and-thrust sword by 1,200. Moreover there is historical evidence for southward movements at that time and the swords could well have arrived as a result of these.

Technology and Method of Manufacture

From the technological point of view the bronze swords are of interest in regard to both the method of casting and finishing. In order to have a servicable weapon good quality material is necessary and a balance hadto be struck between a soft sword that was liable to bend and a weapon that would be brittle (Coghlan 1955,615). To achieve these conditions the tin content should not be much below 10% and after casting, the surface of the blade had to be worked over by hammering in order to harden it.

That swords were made in Ireland is positively attested by the presence of a number of mould fragments. In order to ensure soundness of casting, considerable technological skill

and experience was needed in the designing of the mould and arranging the vent in such a manner so as to facilitate easy pouring of the metal. These moulds were always made of baked clay and the methods employed in their preparation and use have been described by Curle (1932-3 esp. pp. 118-121) and Maryon (1938,214-6. From these studies, together with observations made on the Irish material, it is possible to reconstruct in a general way the process employed.

The smith first made available a strip mixed from course clay and on top of it was placed another layer. This inner sheath is always formed of much finer clay and Hodges (1954, 62-3) thinks that it was previously washed and perhaps had some sand added. Into this, the pattern was pressed to half its depth so as to form a depression. The pattern might have been either an existing sword or a wooden replica, for wood-grain impressions appear in some of the Jarlshof moulds (Curle op. cit., 118). In order to prevent adhesion fine sand or ash was scattered over the mould and pattern and then the same was repeated reversely for the other half. Between the mould edge and that of the pattern a number of depressions were made. These were intended to receive corresponding projections from the upper half which ensured even matching and kept both parts steady.

To strengthen the mould, but only the upper half according to Maryon (op. cit., 215), a straight stick of wood was incorporated as the fragment from Lough Eskragh (Fig.49:4) testifies. The strengthening rod was usually placed in the outer layer but in Boho fragments (Fig.49 :1,2) the cavity is in the inner layer.

After a period of drying the pattern was removed and the mould was trimmed. Curle (op. cit., 119) thinks that the inner faces were rubbed over with a fluid mixture. This could have provided a fine smmoth surface and prevented the metal from adhering to the mould. The two pieces were then enclosed in an outer casing, or envelope, of clay formed from

rather coarser material and extended beyond the hilt and so as to form a gate or jet into which the liquid bronze could be poured (Curle op. cit., 120 fig. 391). Later it was well baked. When about to be used the mould was placed upright in a pit and secured in position. The moulten metal was then poured in and after it had cooled the maxtrix was extracted and the cast weapon removed. From the number of fragments it appears that the mould was broken in order to extract the sword. The rough casting was then trimmed, the surface smoothened down and the edges sharpened; in the fully finished product the complete surface was beaten. This makes the metal half as hard again (Jope 1953, 39). Finally the rivet holes were perforated and the handle plates attached. None of the Irish weapons have the elaborate hilts of some of the Scottish (Inverboom, Tarves, Grosvenor Crescent, and Leadburn) and English examples (River Cherwell and Yorkshire). Here only single plates of bone or wood were used. Only four swords retain their plates and only fragments survive. The best preserved occurs on the Lisleitrim, Co. Monaghan (Fig. 12 No 27) and Mullylagan, Co. Armagh (Fig. 17 No 104). In each case the plates of bone, remain on both sides and in the Lisleitrim example they fit neatly within the flanges.

Near one of the rivets on the handgrip of a sword from Derryoober, Co Galway (No 186 Fig. 22) there was a fragment of wood, identified as ash (Fraximus) which obviously formed part of the handle plate. On each side of the hilt of an unlocalised sword (Fig 38 No 465) part of the plates have survived, but these have suffered considerable chemical action it is difficult to identify the material used. Where evidence is available as indicated by the rivet lengths, the plates thickened from the pommel end downward. The extent of the plates is indicated on a very large number of weapons. This shows that the base did not terminate ina straight line but that there was a semi-circular shaped recess in the centre. In some instances, such as No 264, the area covered by plates is slightly higher than the adjoining portion of the blade

suggesting that the handle was in position before the final polishing took place.

When a sword was broken, two methods, "fusing together" and "casting on" could be employed to repair it. Using the first method the smith, having placed the broken parts in the correct position, constructed a mould around them which allowed molten metal to be run in and pass along to fuse the parts that were to be joined (Maryon, op. cit., 185).

The second or "casting on" process was employed to replace a missing part such as a handgrip (Maryon 1935, 41-2; 1938, 185-6) To do this the smith constructed a mould for the new part and of sufficient extent to include the adjoining portion of the old. Often the surface of the fractured end was grooved to ensure a stronger joint (i.e. Nos. 199,206, and 476). The molten metal was then poured in but, at first, sufficient was allowed to run through so as to fuse to the broken stump. Sometimes the work was unsuccessful and the pieces came apart. This is clearly evident in such examples as those from Carrickobreen, Co. Westmeath (No 278 Fig. 28) and Cambo, Co. Roscommon (Fig.39 No 476). In the latter instance there was enough metal to cast the new grip, but not sufficient to provide enough heat to fuse it to the blade. The molten metal chilled against the broken end resulting in an imperfect joint.

A very large number of swords, about 64, show evidence of hilt repair. The weakest point seems to have been at the junction between handgrip and shoulder and there is evidence that at least forty four weapons have been repaired at this point. Mid-point on handgrip comes next as a casuality area with nine repairs. The pommel end has been cast on in six instances and the hilt from low down on the shoulder near the middle on four occasions. Because of its narrowness the point of mergance between the grip and the shoulder may have lacked strength, but it is hard to explain so may breaks higher up. It may well be that in some instances

a technical deficiency, such as the metal cooling too rapidly, left the smith unable to complete the casting at once and he resorted to casting on in order to finish the job.

The process of casting on does not appear to have been introduced until an advanced stage of the Late Bronze Age. With the exception of one Class 4 sword, no. 59, there is no definite evidence of hilt repair or alteration among the swords of the earlier classes (1,2,3 and 4) while it is very common on swords of Class 5. It may therefore be considered the product of the more fully developed Late Bronze Age.

Classification of Irish Bronze Swords

Class I (Nos. 1 - 23 Figs. 11-12) This group of swords has already been isolated by Hodges (1956,37) and termed the Ballintober type. Swords of this class are plain weapons and apart from the outward projection of the shoulder tips there is no appreciable change in structure between the blade and the hilt. In design they are, nevertheless, very distinct and form a homogeneous group.

Type. A Class 1 sword is characterised by a more or less rectangular tang-like handgrip that is always flangeless and possesses 4 perforations set in pairs. From the centre to the sides the grip thins down and it widens and thickens slightly from end to shoulders. The grip expands into pointed shoulders, these are straight and short and project outwards at an acute angle. They never contain perforations but about half the examples possess a ricasso.

The blade has a slight leaf-shaped form and the edges are bevelled. Normally the balde is otherwise featureless, but in one or two examples (Nos. 2 and 8) a low ridge follows the outline of the edge. There is a distinct midrib present and this thins out towards the edges giving a sectional profile of a flattened and pointed lozenge

Origin. Parker Brewis (1924-256-7) considered such weapons as transitional between the rapier and the full leaf-shaped sword, but as Hodges rightly pointed out these swords appear to be the result of bronze smiths, who were trained in a Middle Bronze Age tradition, trying to reproduce the new intrusive sword types without grasping fully the method or technology required to accomplish the work perfectly. It is almost certain that this copying took place in England, where the earliest bronze swords occur in the Thames valley and it is significant that the distribution of Class I swords in Britain, apart from the Severn estuary, is also confined to that area. From there they spread to Ireland where they became popular having a fairly wide distribution and also perhaps a reasonably long life.

Distribution. (Fig. 3) As has previously been remarked the distribution of Class I swords in England is confined to the Thames estuary with one or two examples in the west and in south Wales (Hodges 1956, Fig. 3). In Ireland the distribution is Northern and mid-central plain area. There is at least one example from Northern France (Hodges 1956,51) but this can be regarded as an import from England.

Associations and Date. In this country Class I swords have not been found in association but in Britain they occur, in two hoards (Hodges, op. cit., 37). At Penard, Glamorganshire two such swords occurred together with a leaf-shaped spearhead a socketed axe of hexagonal section, and a tanged and barbed bronze arrow head. The other association is ~~somewhat~~ probable, but it contained a sword and a palstave of the type termed 'transitional' by Miss Smith (1959, 189). That is ~~of~~ the type that comes after the Middle Bronze Age form and that later developed into the late palstave as is found at Wilburton. In addition some ~~of~~ Class I swords, as for instance, an example in Colchester Museum (Brewis, 1922-3 Pl. 38 No 16A), have an inconspicuous ricasso consisting nearly of a milled edge to the blade just below the shoulder. This is a characteristic

feature of swords of the Hemigkofen type (Cowen 1951,196). Furthermore the recent sample analysis of Middle and Late Bronze Age material has established that in the Middle, and perhaps also in the Early Bronze Age industry, lead entered the product only as a trace element, whereas in the Late Bronze Age lead became a standard component of the bronze alloy. In this connection it is significant that Class I swords were made, at least in the South of England, of bronze having a low lead content (Smith and Blin-Stoyle,1959, 196). By the time the native series of bronze swords became established the practice of using substantial quantities of lead had become standard.

This evidence shows that Class I swords are early. They were probably first made around 1,000 B.C. It is difficult to say for how long they remained in use. The flat oval section of No 20 suggests influence from Class 4 or even Class 5, but that is an exception. The other examples are so much alike that they do not appear to have been spread over a very long period, for if they were, differences in form should be expected. In England the type also seems to have been short lived and it is possible that they represent the phase that extended from the beginning of the Late Bronze Age up to the establishment of a full industry around 900. If such swords still remained in service it is odd that they are absent from the hoards that they became common.

Class 2 (Nos. 24-33 Figs. 12-13) Numerically this forms a small group only about eight examples are known and those show some divergance of form. Swords of this class are fine, strong weapons averaging 600 mm. in length.

Type. The handgrip is always flanged and this sometimes extends down the shoulder wings. It possesses a straight ended terminal that projects slightly to each side. The grip usually widens from both ends to reach a maximum width at about midpoint or slightly below. Sometimes the grip has parallel sides and when this is the case the flanges are so formed to appear as D shaped IN SECTION, the web springing from the

middle of the straight inner face. This flange feature also occurs on some of the early swords in the south of England. (Brewis 1922-3, Pl. 40 No 21a). The widening grip usually possesses straight flanges. In the majority of instances, the centre is occupied by an elongated slot, although some grips possess perforations only, but perhaps the most characteristic feature of a Class 2 sword is the lunar or rounded shoulder. This contains rivet holes, either 4 or 6, equally divided between each wing, but No. 24 (from the River Bann) has a combination of slot and rivet.

The blade is long and pointed, it has a leaf-shaped form, but this feature is not particularly well emphasised. Nearly all the blades of this class are also of flat lozenge section. In some examples a low ridge runs parallel to the edges which are drawn out from that point. Nos. 24 and 29 lack a ricasso but in No 29 the edges for about 25 mm. have not been sharpened.

Origin . By and large the prototype of Class 2 swords is the Erbenheim sword. Apart from the rounded butt Class 2 swords possess other Erbenheim features such as the incised line running parallel to the edges, a feature that occurs in Nos. 26 and 31 and to some extent on No 28 towards the tip.

Distribution. (Fig. 4) In Ireland localised examples are widely scattered over the northern two-thirds of the country. In England most of the examples are confined to the south and east. At least one specimen is known from Scotland (Henderson, 1937-8, 159)

Associations and Date There is no definite evidence for this type of sword occurring in hoards in this country although the fragment in the Co. Roscommon hoard (Appendix A) may well have belonged to the blade of a Class 2 sword. There is, of course, abundant evidence for association in the English Wilburton complex hoards. These range in date from about 900 to 700 B.C. (p. 31 below)[7]

Class 3 and Class 3A Class 3 (Nos. 44-50 Figs. 13-14) is a

small but distinct, group of inelegant and unattractive looking swords. Some, (i.e. Nos 47 and 48), if not all, look doubtful and the possibility of forgery must not be overlooked.

Type The principal feature of swords of this class is a handgrip, usually flanged and swelling from both ends to reach a maximum width at midpoint. This ends in a narrow right angled projection at each side, somewhat in the shape of a much flattened key stone. Normally the web is ridged and some have a shallow depression between the holes. The shoulders project abruptly and are straight at the top and bottom. Both shoulder and grip contains rivet perforations, but there is never a ricasso. In outline the blade is slightly leaf-shaped and is plain. The blades of Nos. 45, 46, and 47 are of lozenge section, while the others assume a pointed oval section.

Somewhat similar are swords Nos. 51 to 54. The handgrip, terminal, and blade form is almost identical, but they lack the projecting shoulder and the blade is more elaborate, having a rounded central swelling on each side of which there is a broad shallow depression and on the inside of the edge a ridge. The latter is quite thin. These swords are being designated Class 3A

Origin . There is no evidence to show that such swords occur elsewhere. If genuine they are of native origin and they could be the result of hybridisation between Class I and Class 2 swords. The projecting shoulder could have been contributed by Class I andthe almost parallel sided grip or that widening from both ends to the middle is a Class 2 feature. As has already been noted the lozenge-sectioned blade is common to both Class I and 2 and the pointed oval section could have come from Class 4. The ridging of the handgrip should be a late feature as it is common on Class 5 swords.

Distribution (Fig. 5) The distribution is northern.

Association and Date . Neither a Class 3 or a 3A sword has been found in association and in order to arrive at a possible date we must depend on typology. If these swords arethe result of interaction between Classes 1 and 2 it is unlikely that they came into existance before 900, more probable after it (below p. 30-1). Class 3A may have emerged out of 3 but under strong influence from Class 5 as the grooved blade and ridged grip demonstrates, but their scarcity suggest that they were of little consequence and may have been short lived. There is also the possibility that 3A swords are just sub-variety of Class 5 having nothing to do with 3, this would be in keeping with the blade evidence.

Class 4 . This class is comprised of 21 swords. (Nos. 55-76A Figs. 14-16). All are sturdy and well made weapons and the blade has a marked splay.

Type. The handgrip possesses flanges (except No 65), these are usually strong and pronounced and continue down the shoulder on some examples. The grip widens from both ends, but reaches its maximum width nearer the shoulder than the end. In more than half the examples the centre is occupied by a slot; the remainder contains holes. At the end the grip normally terminates in a straight-ended projection at each side, but in Nos. 58 and 63 it is concave, while Nos. 55, 73, 74 and 76A have a convex ended terminal. The shoulders are straight and in comparison with other types are remarkably broad.Nos. 59 and 74 are slotted,all the others have rivet holes varying in number from 1 to 3 in each wing. Under the shoulder tips the sides cut in distinctively in a semi-circular manner to form a ricasso of concave design. The blade assumes a pronounced leaf-shaped form. It has a flat or pointed oval section and some possess a ridge that runs parallel to the edges which are bevelled.

Origin. Class 4 swords are the native version of the Hemigkofen sword as the broad blade and V shoulder clearly demonstrates. Certain modification such as the replacement of the rivet holes by a slot, the milled edge by a well formed

ricasso, and the 'outline' by a ridge, have taken place, but the basic design has been adhered to. Nos. 58 and 63 with the concave finial may be the earliest.

Distribution. (Fig. 6) The seventeen localised examples have a wide distribution throughout the country.

Associations and Date. There is only one instance in which Class 4 swords have occurred in association and this is not particularly helpful. It is the Youghal hoard (Appendix A) where two such swords were found together with two pegged leaf-shaped spearheads. In southern and eastern England these are widespread occurring both inisolated instances and in the Wilburton complex hoards. They, therefore, appear to have a similar range in date to the Class 2 swords.

Class 5 (Nos. 77-508 Figs. 16-38) These are by far the most common of the Irish swords, not only have they numerical superiority over all the other classes, they completely overshadow them, and form roughly three quarters of the total of swords found in Ireland.

Type These swords vary somewhat in detail and size. A typical Class 5 sword, like that from Rosharry, Co. Leitrim, has a flanged handgrip that terminates in a straight ended right angled projection to each side. The grip reaches its maximum width about a third of its length up from the shoulder junction. The centre has a varying number of rivet holes and sometimes on each side of these ridges occur. The flanges sometimes continue down the shoulders fading out near the tip. The shoulders are always straight sided, a swelling occupies the centre, and a number possess a ricasso notch. The blades are well proportioned and are usually of a graceful leaf-shaped form. In most instances a ridge runs parallel to the edges about 4 mm. in. There are a number of divergences in size and make. Some examples such as Nos. 91,142,215 are over 600 mm. long. Others like Nos. 82, 230, 251 are less than 500 mm. Some grips are flangeless while in other instances the ricasso is lacking and the blade is plain. The section of the blade may vary

from an elliptical to a flat and pointed oval.

On the basis of the possession or lack of any of these features it would be possible to sub-divide Class 5, but the result would only be a bewildering number of sub-types determined solely by a mechanical process and as such devoid of any real cultural or chronological status. It is therefore with the greatest of reserve that four sub-types have been isolated. Class 5A (Nos. 471-481 Figs. 38-39) is composed of small swords but it must be emphasised that the choice is largely arbitrary. No doubt these swords are small, but right down the line there are intermediate examples, between them and the large weapons of over 600 mm.

The distinguishing feature of Class 5B swords (Nos 482-88 (Fig. 39) is that in place of the usual rivet holes the centre of the grip is occupied by a longitudinal slot. This may be a vestigal feature from Class 2 or 4 weapons or it could simply be due to the individuality of the maker.

Swords numbers 489-98 (Fig. 40) appear to have been manufactured under Hallstatt influence and are termed Class 5C. This is not a homogeneous group but individually they show certain traits by which they can be distinguished from the main body. These may take the form of slightly hollowed shoulders like Nos. 489-91, by a notched terminal (Nos. 495-6) or by the smallness of their rivet holes, all features that could be borrowed from Class 6 swords.

Class 5D swords (Nos. 499-503 Figs. 40-41) are similar to the normal range of Class 5 swords except that they possess a T shaped terminal. This feature occurs on another group of swords, Class 6A. The swords Nos. 504-8 (Fig. 41) are miscellaneous weapons but within Class 5.

Origin. Class 5 swords are of truly native origin. The principal developing force is the Class 4 sword. The shape of the handgrip and terminal is similar. The shoulders are narrower but they are straight as is the side of the ricasso. The balde is also much narrower and its section tends to assume a greater fullness than those of Class 4.

There may be some slight formative influence from Class 2 swords. The rounded shoulder of the Dowris sword (No.560) is an obvious case in point but this is an isolated object and the feature does not recur. The beaked effect which some of the shoulders show (about 15 i.e. Nos. 80, 165, 298, etc.) may well be, as Cowen (1933, 196) suggested, a Class 2 influence although there does not seem to be much reason why this feature could not have come from Class 4 swords as a result of the straightening out of the ricasso sides. The nativeness of Class 5 swords is not in doubt but where they were first manufactured is less clear. The flourishing Wilburton complex with its numerous Class 4 swords may give priority to the south of England. The idea could have been taken up in the north and from there spread to Ireland and Scotland, although No. 75 seems to be a transitional piece between Classes 4 and 5 and the slotted grip of Class 5B may represent a similar phase.

Distribution (Fig. 7) The distribution is thick and widespread throughout the country. Marked concentrations occur in the Bann valley ~~or~~ AND in the Cavan and Fermanagh lake district also at fords such as Kellogue and Kildrinagh. The type is common throughout the British Isles. In England, where it is termed the Ewart Park type, it is found more frequently in the north than in the "lowland zone" (Cowen 1933, 195) and there are sporadic occurrances in Wales (Savory, 1958, Fig. 15). In Scotland the distribution is mainly eastern (Henderson 1938, Pl. 16: Coles and Livens, 1957-8, Fig. 3).

Associations and Date. In this country Class 5 swords have been found associated with other objects in eight hoards (Appendix A). All belong to the more developed and mature phase of the Late Bronze Age. These swords, therefore, appear to have made their appearance in Ireland at about the same time as the sheet metal work and the Scandinavian types were being introduced and to have remained in use until

supplemented by iron. While an initial date of around 700 seems satisfactory a lower limit is more difficult to establish for we neither have association, typology or morphology to guide us to a close date. None of the Irish associations (Appendix A) need be later than the 7th century, but in Scotland comparable swords can be dated to around 500 by virtue of their association with swans'-neck sunflower pins in the Grosvenor Crescent and Tarves hoards (Coles and Livens, 1957-8, 184) While this is the latest fixed date that can be provided Class 5 swords must have remained in use for another century or two.

If Class 5 swords emerged out of Class 4, those standing nearest their prototypes in form and design should, on typological grounds, be the earliest. Therefore the large, strong, and distinct weapons with flanges and ricasso can be placed at the beginning and weapons lacking these features and assuming a more slack outline, like Class 5A swords, are later degenerate versions. Theoretically this may appear sound but it lacks clear demonstration. It does, however seem safe to regard Class 5A, and other small and less elegant Class 5 swords, as degenerate but what this means in actual chronological terms it is difficult to say. Again what, if any, difference in period is there between No. 215 and No. 270 which is flangeless? The swords grouped under Class 5C show influence from the intrusive Hallstatt swords and other features, such as a more pronounced shoulder swelling, or the ridge that runs parallel to the edge not stopping at the base of the ricasso but extending up on the inside of the ricasso may also be due to borrowing from Class 6. More important still, if it could be proved that no sword with a plain handgrip was manufactured before the arrival of the Hallstatt swords a horizon within Class 5 could be established. Unfortunately the evidence available is not sufficient to show whether any of these features are due to a deliberate change in fashion or simply to the idiosyncracies of the makers. We can, therefore, only say that the large flanged weapons with

ricasso adhere more rigidly to the form of their prototype and that the smaller and not so well fashioned weapons of Class 5A are degenerate, and consequently a later version of these. But we must not consider these as the product of an orderly devolutionary progression that took centuries to achieve.

Class 6 (Nos. 509-551 Figs. 41-44) consists of Hallstatt swords.

Type These are all fine long weapons some, like No. 547, being up to 770 mm. in length. The handgrip is thin and flangeless but sometimes a slight thickening of the edge is noticable. The grip swells from both ends to reach its maximum width two-thirds of the way down from the terminal end. In nearly all instances the latter possesses a central depression, usually V shaped, that gives an eared-like effect to the finial. Often each 'ear' contains a perforation. The number of holes in the grip and shoulder wings vary from one to three. These are small, the rivets are normally round in section and while some have ordinary clenched heads others (518,530,531,532,540,546) have more elaborate heads consisting of a depression with a tiny projection in the centre. The shoulder tops tend to be slightly hollowed and the centre is occupied by a distinct fullness that thins down towards the sides and narrows rapidly across the top into a tongue-like projection that extends up to the lowermost perforation in the grip. In some instances (i.e. Nos. 515,519,524), a shallow hollow, usually on one side, occurs between the grip holes. It is normal for the blade to maintain a uniform width for most of its length although in some examples there is a tendency to widen towards the centre. Most of the blades are plain and take the form of a flattish central swelling with the sides drawn out to form the edges. About a dozen (i.e. Nos. 513,527) possess a groove along the edge and in other examples, the groove is replaced by a ridge (i.e. Nos. 532, 537). Where this feature is present it is always quite

distinct and it may continue up on the inside of the ricasso like No. 540 or runs out before reaching the tip as in No.530. These are characteristic Hallstatt features (Brewis 1922,259). In the majority of instances there is a ricasso. This is also distinct in that at the base the top of the cut away part of the blade is not flat, but slopes downward from the outside.

Origin. Class 6 swords, apart from some slight changes, are typical Hallstatt swords of Gündlingen type. Such swords are common in Central Europe and in France where they sometimes occur in graves (Dechelette, 1927, 212), but their place of origin seems to be Central Europe.

Distribution (Fig. 8) The distribution is fairly widespread especially in the north east and the centre of the country. Unfortunately there is no general study of the British series and it can only be stated that such swords have been found in England (Hawkes 1938, 186). There are one or two fragments in Wales, (Grimes, 1939,70) and Henderson (1938-9,160) notes three examples from Scotland.

Association and Date. There is no definite record of a Class 6 occurring in a hoard. Wilde (1861,471) states that the example from Tumna, Co. Roscommon (No. 527) was found "in the same townland with the hollow golden balls". These appear to be the balls illustrated by Wilde in his Gold Catalogue (Fig. 559) and briefly treated by Armstrong (1933,37-8). None of these sources mention a sword nor record the exact place of discovery. Therefore the association seems doubtful and even if it were authentic it may not be of much help. In Britain there is an alleged association of a Hallstatt sword, socketed gouge, and tanged chisel from Brogyntyn, Shropshire (Chitty 1940, 30-1 Fig. 3) but the association is exceedingly doubtful. In the interior of Western Europe such swords have been found in graves dated to the beginning of the Hallstatt culture, (Savoury in Chitty 1940,34) but towards the coast in the Low Countries Hallstatt swords were found in the Urnfield at

Hinault where the urns were, according to Savory (p.35), of a type characteristic of the end of the Halstatt and beginning of the La Tène phase of the Ardennes area i.e. about 550-300 B.C. Cowen (1952, 136-7 argues that British swords showing Hallstatt features were exported to northern Europe where one formed part of the Kirkesöby hoard dated to Montelius V. If these deductions are correct it implies that Britain was receiving Hallstatt swords in the 7th century.

On typological grounds the Irish eared terminal represents the final form (Cowen unpublished but quoted by Hawkes 1938,186) developing from the almost square terminal with one rivet hole. Later the hole moves up to the end where it forms a notch, the culmination being a deep V cut. Hawkes(op. cit.,) considers the intermediate form as a British development. The final modification probably took place in Ireland. This raises the problem of the status of Nos. 509, 528, and 538. On account of its square perforated terminal No 509 is placed at the beginning. The straight shoulders and more distinct blade swelling of Nos. 528 and 538 may suggest influence from Class 5. In addition these three swords are the only Class 6 swords that are flanged. Instead of being Continental imports they may be native pieces owing something to swords of Class 5.

Class 6A . Six swords Nos. 552-7 (Fig. 44) form this class Type. The handgrip contains two perforations and reaches its maximum width at the lower example. Between these in Nos. 555 and 557 there is a shallow depression and No. 552 has ridges running up the grip on each side of the holes. The grip terminates in a T shaped finial and half the examples are flanged. The shoulders are straight or slightly concave. Two examples have four rivet holes, the remainder two. In most cases the centre is occupied by a distinct swelling in the form of an inverted V. There is always a ricasso notch. The blade takes a slight leaf-shaped form. Nearly all the examples are flat oval in section with a ridge running parallel

to the edges.

Origin . In their general appearance, and in particular the hilt design, these swords show Class 6 influence and the shape of the terminal could be arrived at by reducing the height of the terminals of some of these swords, like No. 538. The blade, however, is more in keeping with that of Class 5 weapons. Instead of considering these swords as modified or degenerate Class 6 implements it is best to look upon them as Class 5-6 hybrids of native origin.

Distribution (Fig. 9) Only three examples are localised, two of these come from the north, the other from the south.

Associations and Date. The Museum Register notes that No. 553 was found with a spearhead. 295 mm. long and has loops on each side of the socket. But in the absence of definite evidence the association cannot be accepted. If our assumption that these swords form a hybrid Class 5-6 group is correct they could not have been manufactured until after the arrival of Class 6 swords.

Miscellaneous swords. (Nos. 558 -587 Figs. 45-46) These do not fit into any recognised class. The flat lozenge sectioned blades of Nos. 558-9 are an early feature as are the rounded shoulders of 560. Nos. 561-3 may be related to Class III while 564 is a carp's tongue sword and 565 must have been manufactured under carp's tongue influence. 566-8 are oddities. Nos. 569-83 are strange pieces, all are heavy cumbersome weapons that have an unbalanced feel and would be difficult to use. They have a flanged grip that reaches a maximum width at about midpoint. The terminal is small and often of keystone shape. There are two rivet holes and a further two in the shoulder, but a couple of examples have four. The tops of the shoulders are straight or slightly convex. They narrow rapidly underneath but only 577 possesses a ricasso. Extending up the base of the shoulder there is occasionally a swelling. The blade has a marked central splay. It is of flat section and some examples have the edges very neatly drawn out.

Hodges (1956,37) thought that these swords with lozenge-shaped blade were a regional variant, but if so there is a marked falling off in the standard of workmanship and it is doubtful if such cumbersome weapons were serviceable at all. In addition the whole appearance of these swords is odd and it is really impossible to state from which of the other classes they emerge. There are also detailed differences too such as in the treatment of the edges (i.e.) Nos. 573, 580) and the nature of the shoulder swelling especially in examples like 577-9. The sides of the diamond in the centre of the shoulder of 572 seems to have been ground down by filing. This could, of course, be due to subsequent interference. Furthermore they are the only swords in the Irish series that show mould marks in the form of wood grain (i.e. 570, 575). Only six examples have a known provenance, four of these are from the north the other two from Munster. It should be noted that with the exception of two examples in Dublin and one in Limerick, all the other unlocalised pieces are in Northern collections. Mr. Cowen is doubtful about the authenticity of these swords and the thinks that they could well be fakes. At any rate their dubious nature makes them suspect, analysis might settle their status. The authenticity of 584-7 is also suspect.

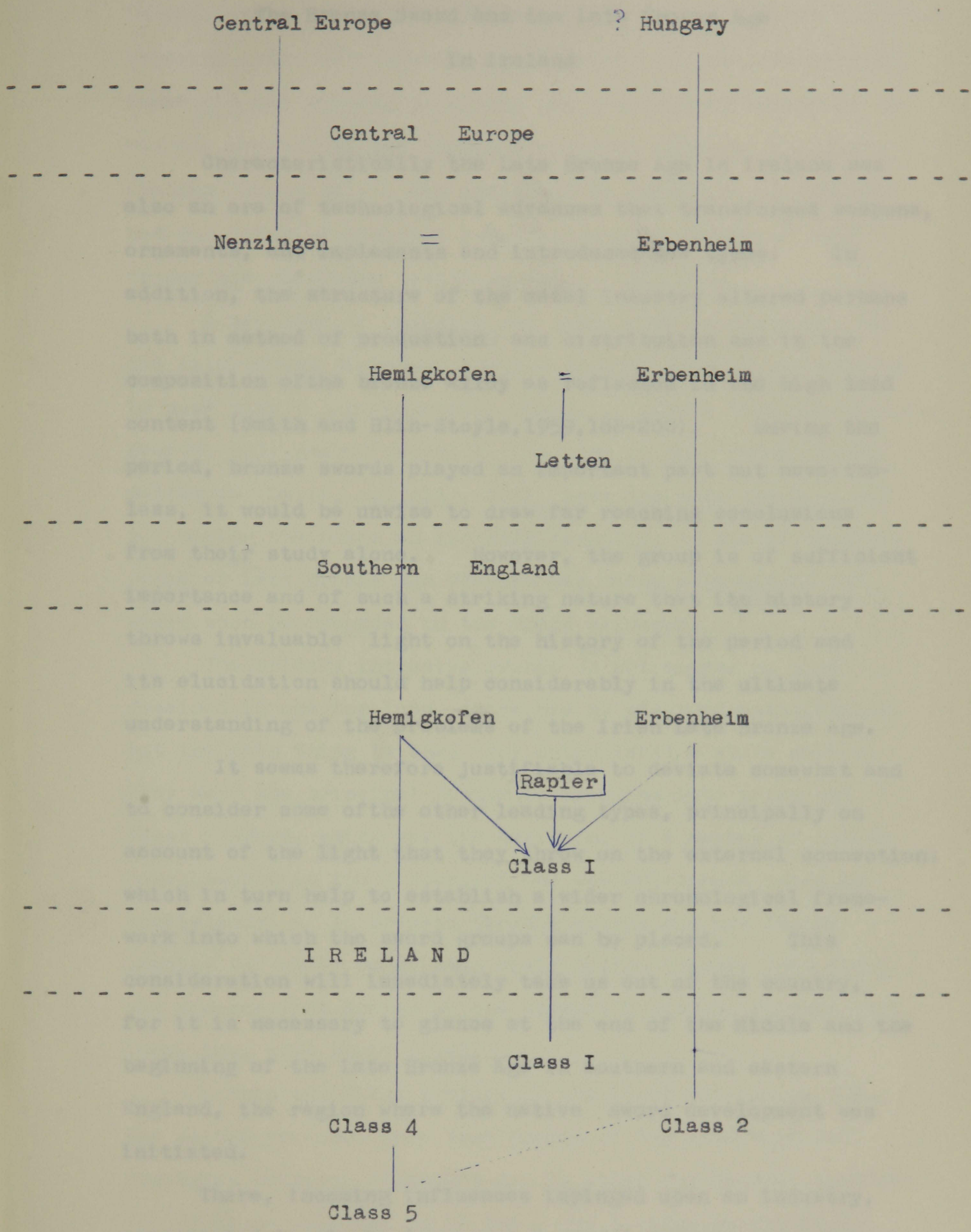

Table 1. Diagram to show the devolution ofthe Irish Bronze Sword.

The Bronze Sword and the Late Bronze Age In Ireland

Characteristically the Late Bronze Age in Ireland was also an era of technological advances that transformed weapons, ornaments, and implements and introduced new types. In addition, the structure of the metal industry altered perhaps both in method of production and distribution and in the composition ofthe bronze alloy as reflected in the high lead content (Smith and Blin-Stoyle,1959,188-200). During the period, bronze swords played an important part but nevertheless, it would be unwise to draw far reaching conclusions from their study alone. However, the group is of sufficient importance and of such a striking nature that its history throws invaluable light on the history of the period and its elucidation should help considerably in the ultimate understanding of the problems of the Irish Late Bronze Age.

It seems therefore justifiable to deviate somewhat and to consider some ofthe other leading types, principally on account of the light that they throw on the external connections which in turn help to establish a wider chronological framework into which the sword groups can be placed. This consideration will immediately take us out of the country, for it is necessary to glance at the end of the Middle and the beginning of the Late Bronze Age in southern and eastern England, the region where the native sword development was initiated.

There, incoming influences impinged upon an industry, represented largly by 'ornament horizon' bronzes and palstaves and which has recently been studied by M.A. Smith (1959,144-87). These types, as Miss Smith has shown (op. cit., 181) portray a flourishing, but distinct, industry largely independent of Irish and North British bronze working, but in constant contact with western and northern continental countries. In addition to palstaves, its products included some rapiers, side-

looped, and perhaps basal-looped, spearheads and Class I razors. Although there were continuous incomings during Montelius III these did not effect, or alter, the established industry. It was the arrival of the bronze sword that effected its disruption for in only a few instances do palstaves or ornament-horizon material occur in association with bronzes of Late Bronze Age character (Smith op. cit., 166, 181)

A new type of industry was soon to be established, but the intervening period of about a century after 1,000 appears to have been a non-industrial phase. Apart from the primary swords, Ballintober swords (- Class I) and 'transitional' palstaves (Smith, op. cit., 184) were the main types in use. But during the phase an industry producing an almost complete range of Late Bronze Age weapons was being established and would soon be recorded in the hoard evidence.

The primary intrusive swords do not appear to have remained in use for long, there are no recorded associations, but the main thing is that they established a whole series. They were the principal factor in bringing into being the Class I sword, which was the beginning of a series of native developments in the history of the cut-and-thrust sword in the islands. In Britain Class I swords did not become popular and their restricted distribution (Hodges 1956, Fig.3), and absence from hoards of the Wilburton complex suggest that they, too, were short lived.

Within the first century of the first millennium B.C., the smiths produced more true copies of the Erbenheim and Hemikofen weapons, Classes 1 and 2, which for general purposes can still be referred to as the U and V types respectively, although it must be emphasised that this is not upholding Brewis' view or giving chronological priority to either. Neither of these types has received detailed treatment in England, their occurrence together in hoards, i.e. Wilburton Fen, suggest their comtemporeity, but they appear to be confined to the lowland zone and more specifically to the

south-east. On the continent a thin scatter is found (Cowen, 1951, 196), but they also spread westward and in Ireland form a reasonable assemblage. That these swords were manufactured and indeed exported by 900, or soon after, is attested by the Caix hoard in Picardy in northern France (Hawkes, 1942, 38-9, Fig. 8) This contained pieces of four swords, both a U and V type may be represented, and two long tongue chapes. With these, and other objects, were four winged axes of an essentially early type. The recent find from Isleham in the Cambridgeshire fens (Britton, 1960, 279-82), where the latest object was a Class A cauldron handle established that the swords lasted on till about 700. In Ireland Class 2 swords continued longer as the much modified example (No 560) from the Dowris hoard shows. This is a very degenerate Class 2 and the smith that fashioned it was under the influence of, and perhaps well acquainted with, the manufacture of Class 5 weapons. Indeed, its only distinguishing feature is the rounded shoulder which shows that it belongs to an earlier tradition.

By the time the U and V swords appeared the metal industry typifying the early phase of the Late Bronze Age was well established. This largely took the form of reorganising or transforming the distributive side ofthe industry, as is witnessed by the appearance of a new type of hoard. These hoards typified by those from Wilburton (Evans, 1884, 106-14; Fox, 1923, 59 Pl. 10), Guilsfield (Grimes, 1939, 170-1 Fig. 71) and Isleham (Britton, 1960, 279-82) consist largely of scrap metal - worn and used objects - but sometimes accompanied by moulds and unworked pieces of bronze. The prominent types represented include in the first instance U and V shouldered swords, long tongue chapes, tubular ferrules, and indented socketed axes. To this the term Wilburton complex has been assigned by Savory (1958, 30) and the south eastern English distribution of the hoards show that it was in that region that the complex had its original centre of production.

In Ireland, the Middle Bronze Age was different in composition from that of its counterpart in the south of England and technology really it was based on the use of stone moulds for casting (Hodges, 1954, 72). The smiths had local supplies of copper and they played an important part in the metallurgy of northern and western Europe. Throughout the period there was a lively export trade, but during the latter part, its extent diminished at least as far as Southern Britain is concerned (Smith, 1959, 168 ff. compare Map 4, a and b). Towards the end the culture may have come under Nordic, or more immediately, Somerset influence as the presence of the board from Bishopsland, Co. Kildare (O'Riordain, 1946, Pl.13) implies.[9] But essentially the industry continued to function in an uninterupted Early Bronze Age tradition. This is particularly clear in the case of palstaves. Here the true 'Western European' type does not occur until late, instead its place is taken by developments ofthe flat axe, first the 'haft flanged axe' and later the 'wing-flanged axe' (Smith 1959,171-2). Similarly the rapier is just a modified elongated dagger. Another product of the native industry is the socket looped spearhead with kite shaped blade Class III (Evans and Mitchell, 1954, 58). Apart from producing these utilitarian objects, the Middle Bronze Age craftsman was also an experienced gold worker and fashioned superior ornaments such as Tara type torques.

A study of Middle Bronze Age ceramics show that these, like the bronzes, were a continuation of earlier wares. This is especially true with regard to cordoned urns whose origin seems to stem from Late Neolithic wares such as Lough Gur Class II (Piggott, 1955, 237; May and Collins 1959,34-9). The same may apply to encrusted urns, for again applied bands are known on Class II pottery.

The time of arrival of the pegged leaf-shaped spearhead is not altogether clear. In Middle Europe such spears are current in Bronze Age A2/B (Hawkes 1948, 217) and assuming that it was the crossing of this type with the native socket looped

type (Class III) that produced the hybrid base-looped form (Evans, 1930, 191) they must have arrived well within the Middle Bronze Age for, as Cowen (1948, 233) has demonstrated, base looped spearheads were being exported from Britain to northern Europe where one formed part of the grave group from Lisbüttel, in Holstein, which on the basis of its Nordic objects can be assigned to Montelius II a (Cowen, op. cit.,) that is not later than the 13th century (Hawkes 1948, 217).

The ancestry of the socketed axe is not particularly clear. Long slender square sectioned socketed axes of north German origin were in use during the English Middle Bronze Age as the Somerset hoards testify. Some also arrived here, presumably during the same period, for one forms part of the Bishopsland hoard. The socket moulding of the chisel formed with lines of imitated cord is a frequent feature of Irish bronze work according to Butler (1948, 165). This suggests that some of the objects are of local manufacture. While such axes are rare, and there is no evidence that they lasted into the Late Bronze Age, Butler has, however, noted a number of axes that appear to be related or indeed a derivative. These differ in proportion to the Bishopsland type but they have a rectangular cross-section and the characteristic flat moulding. Butler (op. cit., 165) distinguishes a short variety (e.g. Newtown Crommolin, Co. Antrim) and a broad variety (e.g. Ballina, Co. Mayo). It seems reasonable to suppose that the Bishopsland axes reached Ireland from, or via, Somerset, but Butler (op. cit., 166) on the evidence of the Glentrool type pin, points out that there may possibly be an independent route from north Germany across Scotland to Ireland.

It could be suggested that the short rectangular axes are the ancestors of the Irish faceted series, the emergence of such axes arising from the necessity to eliminate the difficulty of removing a square, cross-sectioned, wooden model from a clay two-piece mould without breaking the matrix. To facilitate easy removal a process of making the sides of

the square cross section round may have been resorted to (Hodges, 1954, 73-4) It now appears that the faceted axe is not of native development for the recent researches of Butler (op. cit., 220 ff) have established that the faceted axe is also of north German origin and from there they reached the British Isles. What appears to be the basic type, as it is common to north Germany and Britain, has a single socket mouth moulding. The Irish-British varieties have a double moulding and funnel mouth. Butler has not closely defined the date of arrival of these axes but Hodges, rightly to my mind, placed them early in the Late Bronze Age, at least the Irish hoard evidence (Hodges 1956, 29) admittedly not especially illuminating, suggest this, a suggestion that receives some confirmation from British associations such as Guilsfield (Savory, 1958, 32-3). It can at least be said that the Irish-British faceted axes were traded back to the north in Montelius V (Butler op. cit., 232).

It now seems that both the leaf-shaped spearhead and socketed axe arrived before the sword. The spearhead continued without much alteration and became dominant in the developed Late Bronze Age, the older types and hybrids becoming extinct. The Bishopsland axe type may have given rise to some axe development, but it seems likely that the type did not lead on to the faceted group which was also a new arrival at a later date.

While it is now established that both leaf-shaped spear and socketed axe arrived in the Middle Bronze Age, there is no evidence that their arrival or presence changed the structure of the existing culture. The fundamental break did not come till later and the evidence seems to point that this was brought about by the arrival of the leaf-shaped sword.

The arrival of Class I swords was a decisive event for it can be considered as the opening of the Late Bronze Age. Their presence caused the abandonment of old types and traditions and when any survived they did so much modified. It is in this way that we can best explain the presence of a separate

short form of rapier. The type has not received adequate study but it appears to be of fairly frequent occurrence. The characteristic features of this weapon are a short tang like extension of the butt, projecting shoulders, and a blade that is slightly leaf-shaped. It is normal for the blade to have a flattened mid-rib with the sides drawn out although an example from Lisburn, Co. Antrim (Day Catalogue Pl.11,275) has a more lozenge-sectioned blade. The hilt plates were held in position by rivets, sometimes two but often four, set, not in holes, but in notches in the side of the tang. The type can be looked upon as the product of interaction between the trapeze butted rapier (Fig. 1.1) and the Class I sword. The first stage may be Fig.1.2 where the butt is notched and is somewhat rounded at the end but the blade is still either almost parallel sided or tapering to the point. Fig.1.3 is the classic example with shoulders and blade swelling borrowed from the sword. No. 4 is even closer to the swords, it has a longer tang that has notches for four rivets which like the sword are placed in pairs. No 5 is included on account of its unusual appearance, it may be a small Class I sword.

Another form that seems to have come into existance as a result of the arrival of Class I swords is the tanged knife with leaf-shaped blade (Fig.1.6). Hodges, (1956,39) sought the origin of these knives in Scottish knives with perforated tang, such as those occurring in the Glenstrool hoard (Childe, 1935, 150, Fig. 39,3). But these knives are entirely different, and it is most doubtful if such knives have any bearing on the origin of the non-socketed knife which appears to be just a small version of Class I swords. This is especially clear when we look at some Irish examples like that illustrated by Raftery (1951,163) at the bottom of Fig.170. In addition to the hilt the leaf-shaped blade can only have been derived from the sword and the concentration of these knives in Ireland and Southern England is relevant (Hodges, op. cit., Fig. 4).

Round bronze shields were probably also introduced at this time (Butler 1958, 253) although Hawkes and Smith (1957, 148, f,n. 2) thought that they may have stemmed from Late Urnfield sources at the same time as the large sheet bronze buckets. The technique of fashioning bronze shields never developed in Ireland, only three examples being known (Athenry, Toome Bar and Lough Gur) in contrast to thirty five in Britain (Butler op. cit.,)[10]

Classes 2 and 3 swords did not arrive in isolation for the industry of which they form part was also established. The evidence for this is not very complete, but there is at least one characteristic hoard and in addition to swords some of the other leading types, such as lunate spearheads (but of Irish origin according to Evans 1933, 198) and the long tubular spear butts (Raftery, 1951 Fig 171) are also represented.

The hoard was discovered sometime in the last century in Co. Roscommon (Appendix A) but only the portion that was acquired by Day in 1870 has survived (Day 1880, 265-6). What remains consists entirely of pieces of scrap metal, but they are true to type and among them are represented three large tongue chapes, fragments of others, and portion of a lozenge-sectioned sword blade that belongs to either a Class I or a Class 2 weapon. As the equivalent of Class 2 swords form an integral part of these hoards in England it may be taken that this is off the same type.

It is unlikely that the presence of this hoard in Ireland is accidental. It seems improbable that a single founder came to Ireland to dispose of his wares, or that some Guilsfield extendionalist who was cruising off the Welsh coast went off-course, or perhaps as a result of a storm was blown across the channel. In any event it is unlikely that he would have penetrated so far inland as Roscommon which is north and west of the centre of the country, unless he sailed around to the Shannon mouth and then up the river. But to explain the presence of this hoard it is

hardly necessary to invoke chance. What appears to have happened is that the south British industry spread to, and became established in Ireland. In contrast to the Middle Bronze Age, where hoards are absent, the organisation now shows a difference with its itinerant craftsmen, or at least scrap dealers. Clearly, such a system is s complete break with the past, and the reason for its existance may be the result of the new order being unable to obtain sufficient copper and having to resort to re-smelting discarded pieces in order to fulfil the demand for new weapons.

In addition to the types already mentioned Hodges would also include the socketed Thorndon knives, socketed sickles, and Class II razors in the early period of the Late Bronze Age for such implements are concentrated in southern Britain and Ireland. These types may have been introduced at an early date, but the period of their widespread use is the developed Late Bronze Age.

Estyn Evans (1933, 190) thought that the socketed knife evolved, like the spearhead, from the tanged version by the addition of a socket, but the sword features possessed by socketed knives, especially the Thorndon and Dungiven types, are very striking. In minature the blade is that of a bronze sword with the hilt replaced by a socket. When the need arose for such an object it would be a comparatively easy thing for smiths to fashion, for it would only mean transferring a socket, which was now widespread, on to what was structurally a small sword blade. The Irish bronze smiths' facilities for copying and pooling will again be noted, while the central U recess at the bottom of the grip is a feature common to Dungiven knives, rapiers and swords, the knives probably received it form the swords. Hodges (op. cit., 38) thought that the Dungiven knives degenerated into the Kells type, but I am inclined to agree with Mr. Marcus O h-Eochaidhe who sees no reason why Kells knives could not be derived from spearheads, in shape the blade is not unlike Class III.

We have now seen that during the opening phase of the Late Bronze Age Ireland and southern England were closely linked culturally, but in the latter half of the eighth century events of great historical and technological importance began to impinge upon the established order. These fresh and vigorous impulses from many sources introduced new types whose origins were far flung and whose arrival brought about the establishment of a full and distinct Late Bronze Age that played a significant part in the prehistory of these islands. Before we go on to consider these influences we will take a look at the old culture-contact area of southern Britain .

Hodges (1956,46) observed that contacts between Ireland and Britain during the two major phases of the Late Bronze Age pointed in two diameterically opposed directions. During the first period the contacts were with the south; in the second with the north. Hodges (op. cit., 48) attributed the breakdown to the effect of economic changes in the south of England. He saw the newly arrived people, who were using the implements and objects that go to make up the carp's tongue sword complex, forming a barrier to further trading with Ireland. To justify this conclusion one must pre-suppose, as Hodges did, that southern England lacked a bronze industry of its own in the earlier phase and in the Middle Bronze Age. Such a hypothesis cannot be accepted without reservation for, as already noted, there was a prosperous industry in southern England and evidence for the produce of Irish smiths reaching there, at least in quantity, is not satisfactory attested, rather the contrary is the case. Therefore there appears to be no reason for thinking that a bronze industry did not come into being in southern England until Late Bronze Age II and the effects of its establishment were to drive the Irish smiths off the market, who now had to seek one elsewhere. For this they turned to Scotland and Northern England. It is, of course, true that this is the case, but in so doing the smiths were only reverting to an earlier trading pattern (Smith, 1959, Map 4).

The acceptance of Hodges' thesis led Savory (1958, 36) to state that now Ireland was economically isolated from southern England. This is not altogether so, for Ireland still maintained contacts, Class 5 swords probably had their origin there and there also appears to have been some contact with the carp's tongue group. There are four purse chapes (Class 3) and at least one sword bearing marked carp's tongue characteristics (No. 564). Socketed gouges may also be mentioned (Mac White, 1944 B, 164) and even perhaps Proudfoot's (1955,23-7) gold bracelets of lozenge section (Type 4) from Downpatrick Hill, although he favoured the alternative suggestion that Type 4 bracelets came from the Urnfield element in the British Late Bronze Age.

In fact it was Britain that was becoming isolated for as Savory (1958,34) has noted provincialism and regional variation becomes characteristic. New industrial, or perhaps, economic, provinces were established and the regional dissimilarities may, as Savory thinks, have been due to differences between the sources of the raw material available to the various groups. For instance, in a restricted area in south-eastern England the new sphere is characterised by carp's tongue swords and their associated objects. As Brewis (1922, 259) hinted, the raw material for their bronze working was imported in the form of scrap, from northern France. At the same time, and mainly on the northern fringe of the carp's tongue sword area, Clark (1940,62) has shown that a distinct type of hoard occurs. This is typified by the Stuntney hoard, Isle of Ely, and a integral part of which is a late type of narrow bladed palstave,

To the south-west, in the Bristol Channel area, another province is found and Savory (op. cit., 36) thinks that this may have relied on Cornish copper. Among its products is a characteristic type of socketed axe termed, on account of its limited distribution, the south Welsh axe. The form of these axes suggest that they were linked to the faceted

type in which they may have originated (Savory op. cit., 37) but Butler (1958, 235-6) has put forward the view that the Welsh axes may be derived instead from the Scandinavian Højby type. The boundary between the south Welsh and carp's tongue provinces is clear, yet such hoards as Lulworth (Dorset) and Mimnis Bay (Kent) suggest their contemporaneity (Savory, op. cit., 37). Away to the notth in Yorkshire, there was another province based on Weardale copper and also producing its characteristic socketed axe (Fox, 1933). An important group of hoards, Heathery Burn, Welby, Horsehope, and Parc-y-Merich, with their horse and chariot fittings, betoken contact with the late Urnfield cultures. This type of hoard was current in the 7th century B.C., as the Heathery Burn material shows no Hallstatt C influences, and the wing ornamented axe gives a correlation with the carp's tongue hoards. (Hawkes and Smith 1957, 155-6).

While the British industry was showing increased evidence for provincialism, Ireland was building up a brilliant industry of her own and was in the forefront with innovations and developments. Her geographical setting, astride the Atlantic sea-ways, contributed to this, for the old Atlantic trade route was re-established. The subsequent industry was, to a large extent, based on the technique of hammering bronze into large sheets. This in itself was a revolution, for it increased the products of the smiths considerably.

Some of the earliest influences came from Late Urnfield central Europe. These were the continental Kurd-Eimer forms of bucket whose origins and diffusion have been so adequately studied by Hawkes and Smith (1957, 134 ff). In this regard one of the most significant objects is the complete bucket from Dowris, Co. Offaly (Appendix A. Fig. 53). On account of its close similarity to Late Urnfield vessels Hawkes and Smith (op. cit., 142) consider it a product of that culture and suggest, on typological grounds, a date towards the end of the 8th century.

Around the same time another large vessel, also made

from sheet bronze, was introduced. This was the cauldron and in contrast to the bucket its home was the Orient. Its origin has also been examined in a comprehensive manner by Hawkes and Smith (op. cit., 160 ff) who have shown that the technique of fashioning large vessels from sheet bronze by means of hammering, originated in western Asia and more specifically in the Kingdom of Uratu(Ararat). Cauldrons showing features, such as ring handles riding free in staples, that later occur on Atlantic cauldrons were a speciality of thes craftsmen. From their centre of production in Armenia the bronze work spread westward. This movement seems to have started in the ninth century as the result of north Syria falling under the suzerainty of Uratu. The importation of the cauldrons soon led to their imitation in Greece, and these, termed dinoi, could have been the prototypes of the earliest Atlantic cauldrons of Class A. Hawkes and Smith (op. Cit., 170) have concluded that the cauldrons must have begun to reach the west before the middle of the eight century, for the Assyrian conquest of north Syria at that time resulted in the cessation of metal working there and its limitation within Armenia.

Hawkes and Smith (op. cit., 176 ff.) thought that the couldrons were carried westward as a result of Greek trade and then up through France although Leeds (1930, 27-8) favoured the Straits route. Professor Hawkes now thinks that the westward move was due to the activities of the Phoenecians and that the earliest cauldrons should have reached Ireland at about 750 as did the buckets (letter 18.4.1960)

The arrival of these two types led to the production of native forms which retained in shape and structure many of the features of their respective prototypes. But as Hawkes and Smith have so brilliantly demonstrated a certain amount of interchange of ideas and borrowing occurred. In the manufacture of cauldrons the spheroid body, the rim, and the handle forms of their Mediterranean prototypes were retained.

The body was built up, not in one piece but, by means of rivetted sheets. This together with the rolling of the rim edge around a wire is characteristic of the Kurd buckets. The body form was sometimes altered to a high shouldered and somewhat conoid shape and the neck corrugations may also be a further bucket borrowing. On the other hand the native buckets were always fashioned with ring handles in imitation of the cauldrons. Such handles were sometimes added to imported Kurd buckets (i.e. Derrymacash and'Leinster') to replace their ribbon handles. The multiple ribbed base plates seem to be a native contribution, but the high walled tub-shaped base is an original Kurd feature.

Hawkes and Smith have pointed out that the production of both native cauldrons and buckets, which were "an adoption and adaptation" of the originals embracing an interchange of characteristics, must have been contemporary and have immediately followed the first appearance in Ireland (around 750 B.C.) of those prototypes: this suggests a date of approximately 700 B.C.

In addition to the south and east the period at the end of the eighth and beginning of the seventh centuries also saw influences and types arrive from the north. Hencken (1951,57 ff) listed five Irish types, trumpets, gold dress fasteners (fibulae), trumpet-ended bracelets (often made of gold), Herzsprung shields and sunflower pins, which he thought were probably derived from the south Baltic area.

Also current was the penannular gold ornament of triangular section (e.g. Armstrong 1933, Pl. 18, 401-412) that is usually regarded as a hair or ear ornament. The ancestry of this ornament is not clear, prototypes in Portugal have been cited (Armstrong op. cit., 39), but in these islands Ireland was its home (Proudfoot, 1955, Fig. 5c) and British (Gray, 1925 141-4) and even French examples (Childe in Keef 1953, 205) can be looked upon as exports from Ireland orcopies of such. They are of immediate relevance on account of the synchronisms that they provide with other objects.

In Hencken's estimation the northern parallels began with the trumpets during Montelius III. It is however unlikely that Period III influences established the A trumpet series (Mac White 1945), for during that period imports from northern Europe, or of north European derivation, were sparse and took the form of the narrow Bishopsland axe, which at any rate came by way of southern England. If trumpets were arriving then they could be expected to have followed a similar route, but they are almost unknown in England." A late date seems easier to accept and this is supported by the dating evidence provided by the conical spikes of the B trumpets.

The immediate home of these spikes is Scandinavia but their place of origin is central Europe of Late Urnfield times. In the north, during the eight century, conical rivets appear on bronze 'amphorae' in Montelius V (Hawkes and Smith 1957, 186). This means as Hawkes and Smith have said, that the spikes reached Ireland at 700.

Perhaps more important from the chronological point of view is the fine concentric ornament that occurs on gold ornaments, principally gorget terminals and disks. Powell (1953, 172) considered that gorgets were the outcome of Scandinavian connections and are derived from the halskragen, but he suggests that the derivation occurred in Period III. Because of this, and on account of the apparent similarity between some of the elements of the gorget ornament, such as the rope pattern, Powell assigns gorgets to a Middle Bronge Age date. It is doubtful if this view can be accepted, for there is strong evidence in favour of a Late Bronze Age date. By means of the penannular 'earrings' Hawkes and Smith (1957, 157) have convincingly established that the concentric ornament was current contemporaneously with Late Urnfield derived objects as represented by buckets and Covesea (Type 2) bracelets, this fact is further confirmed by the French associations of such penannulars and Late Urnfield bronzes as

Jenšovice type cups (Hawkes and Smith op. cit., 157-9)

While the Irish fibulae are different from their alleged northern prototype they do, nevertheless, appear to owe something to them. The penannular bracelets with cupped terminals seems to be Irish versions of the Baltic trumpet-ended bracelet (Hencken, 1951, 60 Pl. 8.3). In Ireland it is not possible to establish a clear cut division between both varieties for as Hencken remarked they merge into one another and their occurrance together in such hoards as Coachford and Kilmoyly establishes their contemporaneity. They have also been found with other objects of the developed Late Bronze Age (Proudfoot, 1955, 23, Table 2). All these objects possessing cupped terminals, together with the small "dress fasteners" showing disc shaped ends, have been included by Proudfoot in his Type 3 bracelets.

Ireland has also produced a large number of bracelets with swollen terminals expanded evenly all round (Proudfoot Type I). The Lattoon hoard (Armstrong 1933, 47-9, Fig. 17) contained Type I and Type 3 bracelets as well as a sun disc. Both Type I and the rare (in Ireland) Type 4 bracelet of lozenge section occur together at Downpatrick (Proudfoot 1955, 2-4). In the Balmashanner hoard from Forfarshire (Anderson 1892, 182-8) among other objects were Type I and Type 2 (Covesea) bracelets together with an 'ear-ornament' and this, as we have seen links up with Heathery Burn. Further associations could be cited but this is sufficient to establish the general contemporaneity of these bracelet types and their appearance with other bronzes and sheet metal work and also with amber (Coachford, Banagher) in which there was now a well established trade (MacWhite 1944 A, 122-7).

Finally a word must be said about Herzsprung shields. These shields have a wide European distribution (Hencken 1950 Fig. 19) and since Sprockhoff defined the type in 1930 they have been the subject of a number of studies notably by Mac White (1947) and Hencken (1950). As the Irish shields are of organic material, Sprockhoff, in his original study,

maintained that they were the prototypes of the notched continental metal shields. This view can ~~be~~ no longer be entertained, but even so the origin and status of the Irish Hertzsprung shields is not satisfactorily established. Henchen (1951,58-9) favoured a Mediterranean origin, perhaps in Greek lands where similar types were in vogue largely during the eighth century. As both the shields with the U and V notches are found in Ireland, Hencken (1950,307), and later Jope (1951,62), were of the opinion that the V type came to this country from the Aegean, through Spain, and thence by the Atlantic trade route. Another movement north through central Europe caused the U type to develop in northern Germany and Scandinavia from whence some examples came to Ireland. If this is true it is an emphatic demonstration of how Ireland was a meeting place of the two traditions.

Hawkes and Smith (1957, 148-9, f.n.2, and 180) quoting a more recent paper by Sprockhoff picture the U indented shields emanating out of the Urnfield cultures and that the V shield as a peripheral variation not only in Ireland but also in Spain and independently in the eastern Mediterranean. They suggest that these shields arrived at the same time as the sheet bronze work, but wisely add that the problem does not yet seem to be solved. Until more satisfactory evidence is forthcoming Hencken's view has much to recommend it and is in keeping with the bucket and cauldron evidence. It now seems that the Baltic types arrived contemporaneously. To Henken's list we can now add the gold gorgets, Latoon type disks and perhaps boxes (Armstrong 1933, Frontispiece Nos. 485-8) and bullae (op. cit., Pl. 19, 448), as well as concentric ornament, conical spikes and most of the amber with an initial date of arrival at the beginning of the second phase of the Late Bronze Age. It should be remarked that the distribution of both gorgets and B trumpets seems limited, largely to the region of the Shannon estuary . This may suggest the Shannon as a point of entry.[12] Both contain

certain features in common, for example the spikes on the trumpets and the central projection on the discs of the gorgets. This in turn links each to the sunflower pin.

The cause of the arrival of these Nordic objects and types is hard to explain, for they reached Ireland direct and not through Britain. The few scattered examples in Scotland could easily have been dropped en route or re-exported from Ireland. There is of course evidence for contacts between Ireland and the North from the Early Bronze Age onwards, as decorated flat axes (Megaw and Hardy 1938, Fig. 7), halberds (O'Riordain 1937, Fig. 58), and lunulae (Coffey 1913, Fig. 54) indicate, but this sudden influx is puzzling. In an attempt to account for it Hodges (1956,49) suggested that Baltic peoples were visiting the Irish shores on fishing expeditions and perhaps bartered some of their belongings for provisions and shelter. This is not a satisfactory explanation. Mac White (1944A, 126) may have been nearer to the solution when he suggested that the arrival of amber in large quantities was due to Jutland opening up new markets after the decline of the central and western continental routes. This, as he hinted could easily explain the currency of Scandinavian fashions all of which, were of an ornamental nature, but the closure of the amber market may have taken place at an earlier date.

In addition to the augmentation there was also a change in form of the already existing weapon types, especially the swords and socketed axes. The sword that then came into use and remained current, Class 5, is a true naturalised version of the early intrusive swords but, STEMMING from the first generation Class 4 which now disappeared. The main socketed axe form is now bag-shaped. In Hodges' (1956,31) view bag-shaped axes are derived from faceted axes of octagonal section, faceted axes of hexagonal section mark the transition, but Butler (1958, 239) think that they are derived from the small Scandinavian axe of Montelius V. It would thus seem that nearly all the Irish socketed axe types, if not directly

derived from Nordic prototypes were at least inspired by them.

The period around 700, therfore, saw the establishment of a complete Late Bronze Age culture with its variety of bronze types and its distant connections. To understand the large group of Class 5 swords it is essential to have appreciated this background otherwise the large numbers are confusing. The fact that there are so many Class 5 weapons only shows that swords were keeping pace with the other developments and as bronze became more plentiful considerable numbers were fashioned. It must also be remembered that Class 5 swords remained in use for a long time. The plenthora of metal and the wealth of the period is also reIIected in the abundance of non-utilitarian objects. It may be that at that time Scandinavia only was able to satisfy the initial demand and that could account for the presence of instruments and ornaments originating in the North.

The types were soon to receive further augmentation in the form of B cauldrons (Hawkes and Smith 1957, 183 ff). In shape these are similar to A cauldrons, but the rim is everted and they probably acquired the conical rivets from following an earlier fashion. Hawkes and Smith have shown that the B cauldron prototypes are certain Greek painted vessels of the second quarter of the seventh century and their production here should have got under way by about 650. As Hawkes and Smith (op. cit., 184) have said this represents a second phase of Mediterranean influence.

About this time further changes are evident. In the first place B 1, cauldrons were replacing the A cauldrons and there is no evidence that the manufacture of either these or buckets continued (Hawkes and Smith op. cit.,183). Of equal importance and of far reaching effect were the rumblings of new continental movements, this time of a different nature and with a different cultural background - the Hallstatt Iron Age. The first arrivals in Ireland did not abandon the use of bronze, they continued to use it in the manufacture

of their swords and chapes, but their advent may well have hastened the swan-song of the Late Bronze Age.

The technique of iron working was probably initiated by the Hittites as early as the fifteenth century B.C. (Clark 1951, 199-200), but the secret was closely guarded until the dissolution of the Hittite empire two centuries later.

Iron-working was first established in Greece and the Aegean in the centuries that followed the collapse of Mycenae and north of the Alps in the ninth century B.C. (Fox, 1958, xxl) From there the westward advance of the Iron Age cultures commenced and already before 600 Hallstatt bronzes reached Britain (Hawkes, 1959, 177).

In Ireland the Hallstatt sword intrusion was by no means insignificant for a considerable number of weapons have survived and their presence influenced the native dlass 5 swords. There may well have been an actual movement of peoples, perhaps direct from the continent and NOT through England where the distribution of such swords is eastern. However, until a detailed study of the continental and British swords is published one cannot be certain of the manner in which Class 6 swords reached Ireland. Apart from maybe one exception (No. 509) all the Irish examples come at the end of development as envisaged by Cowen (Hawkes 1938, 186)

Professor Hawkes (1959, 177) has deduced that the bearers of the Halstatt swords came, at least as far as lowland England, with a knowledge of iron-working and their arrival brought the native bronze industry to an end. Hawkes remarked that bronze working continued in the Highland zone. This also applies to Ireland for not only were Class 5 swords being manufactured under Hallstatt influence, and therefore subsequent to the arrival of the Hallstatt swords, but as we shall see, a bronze industry continued on till at least the fifth century.

A significant object that should be noted at this juncture is the wooden sword from Cappagh, Co. Kerry (J.R.S.A.I.,

90(1960), 21, Fig.12). This appears to be a copy of an iron Hallstatt sword like that from Llyn Fawr (Fox 1939, Pl.64, Fig. 3). If this deduction is correct, it would imply that iron swords reached Ireland and as iron-working was not yet known a wooden copy had to suffice. There is also Coffey's (1906-7, 42-3) iron sword from the River Shannon near Athlone. Coffey maintained that this is an actual Hallstatt weapon, but as the object is in such a bad state of preservation it is difficult to establish its true nature and his supposition can only be accepted with reservation.

It seems that socketed axes decorated on the face with vertical ribs terminating in hemispherical pellets at the base, were also appearing at the period around 600. These are few in number (Hodges 1956, 31) but are important on account of their similarity to the Llyn Fawr axes (Fox 1939, 385). They have no recorded associations in Ireland, but in Britain, apart from Llyn Fawr, one may cite the Sompting hoard in Sussex. (Curwen 1948, 157-63) This hoard contained a near complete B 2 cauldron, sheets of bronze that may have been derived from other cauldrons, seventeen socketed axes, some of which were decorated with ribs and roundels and, what Curwen call, a "boss-like" object of sheet bronze. This has recently been interpreted by Hawkes and Smith (1957,189) as a Halstatt C 'phalera'. From these associations it seems that 'Llyn Fawr' axes are late and were current with the B 2 cauldrons. Such axes were cast in stone moulds as were the axes with raised chevrons connecting the pellets which Hodges (1954, 70) would assign to the same general horizon.

The Hallstatt warriors may have tried to impose themselves upon the old population, but it is also possible that they became absorbed and soon lost their identity, becoming just another element in the Late Bronze Age cultures just as the B 1 cauldron makers had done. For cauldron makers were now producing the B 2 class, in which, staples with exagerated flanges were held in place by means of a 'lug-and-loop' device instead of being cast on. Hawkes and Smith (1957, 189) date

these cauldrons to the latter years of Hallstatt C, that is between 600-550 B.C. or a little later.

This largely concludes the evidence for direct external contacts in the Irish Late Bronze Age. There may have been tentative Hallstatt D connections. Hawkes and Smith (1957, 198) believe that the wooden cauldron from Altertate, Co. Monaghan (Mahr, 1934) is an Irish version of the Hallstatt D type and they also cite the 'nut-moulded neck or arm-rings from Co. Antrim (Armstrong 1924, 124, Fig. 17). It is not clear if the bracelet with bulbous terminals that was found with two other bronze bracelets, a small bag-shaped axe and a small leaf-shaped spearhead at Kilmurry, Co. Kerry (Ó Ríordáin, 1946, 161, Pl. 14.7), belongs to this or an earlier Hallstatt period.

Granted that the Late Bronze Age cultures were still dominant at the time of the Hallstatt D imports this would only extend the period to the fifth century B.C. (Hawkes and Smith 1957, 197) and there is still a gap to be spanned between the fifth century and the establishment of the La Tène Iron Age. Raftery (1940, 272 ff) proposed an overlap period of more than three centuries (c.500-150 B.C.) between the end of the Bronze Age and the establishment of a full Iron Age, but there is the difficulty of assigning material to this 'transitional' phase now that recent research has established that the leading types used by Raftery, situlae (? buckets) and encrusted urns, had come and gone by 500. Furthermore, as we shall presently see, the evidence on which Knocknalappa crannog and the lower levels of Ballinderry II was assigned to a post 500 date can no longer be accepted.

One or two objects, like the socketed iron axe with loop from Lough Mourne crannog, Co. Down (Wakeman 1898, 241-2, Group 1:3) may have been manufactured at the bronze/iron transition period, but the context gives no indication of date. The Boho spearhead (Greenwell and Brewis 1909, Fig. 74) could be a degenerate Class V weapon manufactured after the establishment of the Iron Age culture for according to Evans

(1933, 200) its ornament is a "mixture of Hallstatt and La Tene elements". The amber necklace from Derrybrien, Co. Galway has been dated to as late as 150 B.C. (Prendergast and Mitchell, 1960, 64), but this must surely be a survival.

If Proudfoot's (1955,10-11) interpretations and comparisons of the structural sequences at Cathedral Hill, Downpatrick are correct it would seem that Phase II defences are similar to those of the timber faced banks of the early phases of some southern English hill-forts, such as Cissbury in Sussex, where they could date from as early as the fourth century B.C. There is,however, no definite evidence for an iron culture before the late third century and this is indicated by the scabbards and horse-bits (Jope 1954,91). Anyhow it appears that the Iron Age cultures were somewhat hesitant in establishing themselves and bronze still remained in use. This in itself is a witness to the durability and vigour of the Late Bronze establishment.

While Ireland was a leading manufacturing country, both for the home and export market, in the Late Bronze Age there is no recorded evidence for funerary practices[13] and the period is devoid of any but the crudest pottery, which is domestic and is usually termed 'flat rimmed' ware, The vessels are handmade and the texture is normally coarse, gritty, and hard fired. Some pots are bucket shaped, others have a short neck, but all lack ornament. Despite the name, the rim tops are not always flat, an internal bevel being of fairly frequent occurrence. Various authorities (e.g. Hencken 1942, 21 and references therin) have suggested that the presence of this pottery indicates an immigration from the continent, perhaps north-west Germany. Because of its similar shape it has also been considered a s a copy of British Iron Age A wares. The coarse pottery occurring at All Saints[INGS] Cross and Scarborough were also cited(Childe 1935, 170) and it was ~~also~~ regarded as the counterpart of this in peripheral areas. To explain the presence of flat-rimmed ware in Scotland Childe

(1940,211) invoked an immigration by Halstatt people into that country. At any rate the sum total has been to place a late date on its appearance, fifth century or even fourth.

The problem of this pottery is rendered difficult on account of its lack of what Piggott (1955 A, 57) called any real distinguishing features. It could be argued that flat-rimmed ware derives from the earlier cinerary urns or in Ireland a survival of such coarse wares as Class II at Lough Gur (O'Riordain 1954, 334, Fig. 16). It is, nevertheless, difficult to accept a direct evolution from the native pottery. I am inclined to support the intrusive view and in this connection the distribution is significant. As Hencken's (1942, Fig. 8) map makes clear in Britain the concentration is to the east, Yorkshire and the east of Scotland with a scatter to the west and to Ireland, and now that Hawkes and Smith (1957, 159-60, Fig. 6) have presented us with a secure date for the sherds from Heathery Burn, we have no longer to wait for the establishment of an Iron Age culture in England in order to being such pottery into being. This shows that in Britain, at any rate, 'flat-rimmed ware' was in existance by the seventh century and while not suggesting an invasion we can at least say that it is a new thing. Now, among the other new things that forms part of that deposit were Covesea (Type II) bracelets . Again we have bracelets and pottery in association at the type site itself (Benton 1931) while the Balmashanner hoard (Forfarshire), also containing Type II bracelets, was deposited within a 'Clay vase' (Anderson 1892, 182, 138). Unfortunately the nature of the fabric is not clear but it is tempting to think that it might have been a 'flat-rimmed' pot. Furthermore, when we compare Hencken's distribution map with Proudfoot's (1955, Fig. 5A) map of Class II bracelets we find that the bracelets, like the pottery, have a predominently eastern British distribution, suggesting that both may have formed part of a movement from Late Urnfield continental Europe. The pottery spread westward, but apparently the bracelets remained

confined to the east.[14]

Proudfoot (1955, 16-17) has pointed out that at this very period there were connections between Ireland and Scotland as is SHOWN by the occurrence of Type II bracelets togehter with bracelets of Type I, a predominantly Irish type, in the Balmashanner hoard. In Ireland, at Downpatrick Hill, the wearers of Type I bracelets may have used flat-rim pottery, but, unfortunately, it is not possible to establish if the hoards were deposited during Phase I in the structural history of the site; Proudfoot (op. cit., 32) favoured instead Phase III. Nevertheless, there is no reason for dating the undefended settlement (Phase I) at Downpatrick, or the gold hoards, to the transitional period from bronze to iron (ibid. 31) or even after 600. This likewise applies to the Late Bronze Age horizon at Ballinderry II and Knocknalappa crannog (Raftery, 1942A). Both sites were dated late, because 'flat-rimmed ware' was considered late. Hencken (op. cit., 24-7) rightly stressed that the Ballinderry finds have their best counterparts among the material from Heathery Burn and the early phase of Traprain Law. But at that time Heathery Burn was not securely dated, and everything combined led Hencken to suggest a date within the last four centuries B.C. Now that Hawkes and Smith have given a correct date to Heathery Burn, everything points to the conclusion that the date of Ballinderry, like Downpatrick, should be raised. To a large extent the same can be said for Knocknalappa, although the degenerate nature of the sword suggests a later date, but degeneration can be rapid an it is not necessary to postulate centuries.[15]

From this review it can at least be stated that 'flat-rimmed ware', whatever its origin reached Ireland in the seventh century. The pottery may have been one of the types reaching the country around 700 In form it could well owe something to another intrusive type, the bucket, as Hawkes and Smith (1957, 160) have hinted.

Having devoted so much space to the new arrivals it is

necessary to consider briefly the native achievement after the full establishment of the Late Bronze Age. In this regard possibly the greatest accomplishment was in sheet bronze working. The Irish-British buckets and Atlantic cauldrons testify the bronze smith's skill and the distribution (Hawkes and Smith 1957, Figs. 4 and 10) show that if the British vessels are not actual imports from Ireland at least the technique was introduced and disseminated by Irish smiths.

The native development of weapons and tools is also clear. Bag-shaped, axes may have emerged from a foreign prototype (p. 46 above) but in Ireland they are dominant and the British examples must be the result of Irish influence. Kinves of the Dungiven and Kells types, tanged chisels with wasted body (Raftery 1942, 128), some of the gold ornaments such as Classes I and III bracelets and penannular "ear-rings", Class II sunflower pins, disc-headed pins and also perhaps B trumpets appear to be the outcome of insular modification. These types were exported and their occurrence in Scotland led Childe (1935, 161) to state that "most of the new fashions in personal ornament which emerge in the Late Bronze Age are immediately inspired by Irish usage". This may also apply to the Scottish sword series. In Scotland, apart from a couple of exceptions, the swords are the counterparts of our Class 5. It could be suggested that the Scottish weapons are an extension of the northern English pieces and the eastern distribution (Coles and Livens 1957-8, Fig. 3) seems to add confirmation but late Ewart swords are absent from the border area (Coles and Livens op. cit., 186) which suggests that the English examples did not penetrate northwards.

As we have already noted (p. 22) there is no positive internal evidence to confirm that Class 5 swords were in use after the seventh century, but there is evidence that bronze cultures continued till at least the fifth century. The use of Class 5 swords must also have lasted for three or more centuries.

On that account it is odd that it is impossible to see more clearly within the class distinct sub-types or regional variations. As has been pointed out there are diversities, but these are not sufficiently wide in range to provide us with a chronological distinction. Of course, when we view Class 5 swords against their context we observe that the culture of the mature Late Bronse Age remained reasonably constant. There were incomings, but none of these brought a substitute for the basic armament of Class 5 swords, leaf-shaped pegged spearheads and socketed axes.

From the hey day of the Late Bronze Age in the seventh century we can constantly observe new arrivals. Not all had the same cultural background and while increasing the range and variety of the types, they were also setting the scene for the culture's final replacement. This appears to have been a gradual process and we can picture the growing apprehension of the bronze smiths finding themselves either unable to adjust themselves to the use of the new metal or unwanted. This may explain why a smith emigrated to the bleak and isolated Shetland Islands, where at a late date in the history of the settlement - phase six of the eight defined structural phases (Hamilton, 1956, 4), he set up a workshop in an abandoned dwelling and produced swords, axes, pins, gouges and other items for an impoverished and conservative community.

<u>General considerations</u>.

The appearance of swords and other new types always raises the problem of the manner of their arrival whether as the result of invasion by warrior bands, mass immigration, or just through "the peaceful penetration of trade"(Brewis 1922, 257). To account for the innovations, and to explain the cause of the break that divides the Late from the Middle Bronze Age many authorities (i.e. Crawford 1922) have postulated an invasion to explain it. Admittedly the principal types were imported and are not the result of native development, but it must be remembered that the Late Bronze Age was not established

at once, types and influences were trickling in during most of the period. Class I swords were probably the earliest and a century may have elapsed before the arrival of Classes 2 and 3. As we have seen the earliest swords in Britain are so few in number that they were obviously the result of trade and once they arrived, native smiths immediately began to copy them, at first not very satisfactorily, but the U and V swords are good native versions of the intrusive article. It is, of corse, strange that the bearers of half a doxen or so, swords, could so effectively destroy one culture, that previously had not been showing signs either of decadence or decline, and establish another. In Ireland the presence of Wilburton complex elements suggests the arrival of people with a warrior background, but despite this it is surprising how new techniques become accepted and adapted through influence or trade. A particular example of this is the beaten bronze work where Hawkes and Smith have shown that the earliest native vessels are the work of smiths imitating continentally trained craftsman, foreign smiths may never actually have set foot in Ireland, for they COULD be Irish who had been trained on the continent. However, smiths could have arrived as an adjunct to invading bands although the background to the arrival of the sheet bronze vessels suggests trade. The fact that trade played a big part in introducing new types is especially clear IN the case of the Breton axes of the sixth century (Hawkes 1959,177) These, as Dunning (1959, 53-4) has demonstrated, are simply objects of barter. The late Professor Childe (1935, 167) pointed out that the re-organisation of the metal trade could have been effected by the arrival of itinerant merchants, who were pictured by the same authority (1940,174) as travelling around the country "in veritable caravans collecting scrap metal ..... in exchange for new tools"

While the Late Bronze Age was a period of flux, the change may have been economical and technological not ethnical. If there was a movement of population it may have been more in

the nature of a drift rather than an intentional shift. At any rate industrial revolutions have a biological effect.

Chronology

Each worker (i.e. Mahr 1937, 379; Mac White, 1944 b 164-5; Hodges 1956,46) that has reviewed the Irish Late Bronze Age produced a new chronology and this will continue to happen until each type is studied in detail. It is not intended that this study should produce an elaborate chronology. What, however, is clear is that the Irish Late Bronze Age falls into two periods with a dividing line around 700. Principally the arrival of the sword was for long considered the dividing line between the Middle and the Late Bronze Ages and recent research has shown that his event occurred in England around 1,000 or at least within the preceeding century. This can be established on two grounds firstly against central European Urnfield chronology and secondly it was at the end of the second millennium B.C. that the Northern European M III influences so marked in the Southern Brittsh Late Bronze Age ceased.

While the primary swords did not reach Ireland nevertheless, we need not consider a long lapse before the arrival of Class I and the opening of our Late Bronze Age. Class 2 and 3 swords soon followed. Tentatively, it is possible to divide Phase 1 in two, 1a should occupy about the first century of the first millennium. It is really an incipient period and the bronze type were Class 1 swords, short rapiers and perhaps tanged knives and socketed axes, but it must be emphasised that the inclusion of the two MIDDLE types is based solely on typological grounds. Phase 1b is the period of sword types 2 to 4 and it seems that the Wilburton complex had then spread westward, This IS SHOWN not only by Class 2 and 4 swords but by some of the other types such as long tubular spear butts, lunate spearheads and especially by the Co. Roscommon hoard. If the Charleville hoard (Prendergast 1961) is authentic it shows that the industry

was developing native peculiarities such as funnel-mouthed faceted axes. Base-looped spearheads continue and socketed knives (Kish, Doyle, 1940) and sickles (Charleville) may have begun to make their appearance. Class V spearheads were also current (Youghal, Appendix A)

Not only did this augmentation of types continue, but it was accelerated to such an extent that the old industry was swallowed up and a new one established, this is Phase 2. This Phase was inaugurated as a result of the arrival of more new types ~~fr~~ FROM far distant lands. From central Europe came buckets and from the east Mediterranean cauldrons. The arrival of the prototypes of these large sheet bronze vessels has been dated independently to the halfcentury before 700 B.C. and the native versions of each were being produced by about 700. From the Baltic region at the same time came what Gordon Childe charmingly called in 1946 (P. 74) "luxury objects of parade" - bracelets, collars, pins, disks, AND TRUMPETS. CONICAL SPIKES AND CONCENTRIC ORNAMENT THAT IS OFTEN FOUND ON GORGETS, DISCS, fibulae, boxes, and bullae also came. Other gold types current were 'ring money' and triangular-sectioned penannular earrings. The sword form changes (Class 5), the plain leaf-shaped shearhead and what may be another new arrival, the bag-shaped axe, are dominant. Wood working, as testified by carpenters' tools like gouges and chisels, must have been widespread. Some of the other bronzes, as for instance Class II razors and knives, may have emerged during Phase I but it was in Phase II that they became common. The widespread occurrance of hoards which were practically non-existant in the first phase and in the Early and Middle Bronze Ages is a further witness to the abundance of bronze.

The composition of Phase II did not continue unaltered throughout its duration. Certainly the basic types, swords, spears and axes, continued but others became extinct and new ones arrived. Already by about 650 B.C. A cauldrons were being replaced by B cauldrons and around the same time Halstatt swords were introduced, but the presence of the hybrid 6A Class confirms the continued existance of Class 5.

Around 600 a new form of socketed axe with facial ribs terminating in roundels arrived and B2 cauldrons developed. By this time buckets ceased to exist. Later still, in the fifth century, there were some Hallstatt D connections like the Co. Antrim 'nut' - moulded ring and the Altertate cauldron.

Phase II can best be described as a period of mixed culture composed of types with diverse origins. It is possible to sub-divide the period and have a Phase IIa from c.700 to nearly 600 with all the initial types; Phase IIb, from around 600 to c.500, is characterised by the absence of buckets and cauldrons are now of the B2 form. Hallstatt swords and 'Llyn Fawr' axes were added to the armoury. Phase IIc has the Hallstatt D imports, but as yet such a phase lacks substance.

SUMMARY

It can now be postulated that the Irish Late Bronze Age was largely established as a result of influences from southern England. Furthermore there is nothing to suggest that a long time lag exists between the arrival of the new weapons in England and their extension here. Indeed, it seems that Ireland was in the forefront of developments and had an equally early beginning to her Late Bronze Age.

It appears that the earliest swords to reach Ireland were devised in the Thames estuary region about 1,000 B.C. by smiths trained in Middle Bronze Age techniques and were a copy of the intrusive Erbenheim and Hemikofen weapons. The type spread to Ireland and is termed Class I. Its arrival brought about the opening of the Late Bronze Age. Soon afterwards more faithful native versions emerged out of the same area and these are Classes 2 and 4. Class 3 may be a Class 1-2 hybrid. About 700 another new sword type appeared,

this truly naturalised and largely developed out of Class 4. Like its predecessors its place of origin may also be southern England. In Ireland Class 5 is the most common type and while there are slight variations the basic design remained constant. Already before 600 a new group with a different cultural background - the Hallstatt - made its debut but sub-Class 6A testifies that Class 5 remained in use and may have survived until superceded by weapons of the La Tène Iron Age.

CATALOGUE OF IRISH BRONZE SWORDS.

This catalogue contains a description of all bronze swords found in Ireland and still extent in museums and private collections. In a few instances where the object can not be traced, and if a good illustration exists a description based on this is included, but such is stated.

The swords are arranged according to classes and within each class according to county and townland in alphabetical order. Within their particular class unlocalised examples follow and these are placed in alphabetical order according to Museums and in numerical order of registration. Unprovinanced swords from private collections come at the end. Each description indicates where the object is illustrated and the number. At the bottom the dimensions, in millimetres, are given. These are, present overall length, length of hilt (this measurement is taken from a line from tip to tip of shoulder to pommel end), maximum width of shoulder, maximum width of blade, maximum thickness at that point, and weight. In order to avoid undue repetition the first two measurements are given in the ~~right~~ left hand column, the second two in the middle, and the last two in the right hand column. Immediately underneath the latter the present whereabouts of the sword is indicated followed by the Museum registration number and habitat. If any of these details cannot be ascertained the intended space is left blank. Finally if the sword has been published a bibliography is given.

Where the full name of the Museum is not given the following abbreviations are used:

Alnwick Cas.	Alnwick Castle, Northumberland.
Armagh Mus.	The County Museum, Armagh.
Armagh Pub. Lib.	The Public Library, Armagh.

Ash. Oxon.	The Ashmoleon Museum, Oxford.
B.M.	The British Museum, London.
C.P.M.	Cork Public Museum, Cork.
Limerick Mus.	The Museum, Art Gallery, and Library, Limerick.
M.M.B.	The Municipal Museum and Art Gallery, Belfast.
M.R.A.	Joint Museum of Roman Antiquities, Newcastle-upon-Tyne.
N.M.A.Scot.	The National Museum of Antiquities of Scotland, Edinburgh.
N.M.D.	The National Museum of Denmark, Copenhagen.
N.M.I.	The National Museum of Ireland, Dublin.
P.P.Farnham.	The Pitt-Rivers Museum, Farnham, Dorset.
P.R.Oxon.	The Pitt-Rivers Museum, Oxford.
Salisbury Mus.	The Salisbury, South Wilts., and Blackmore Museum, Salisbury, Wiltshire.
U.M.A.Cantab.	The University Museum of Archaeology and Ethnology, Cambridge.

CLASS I.

The handgrip is flangeless and rectangular and there are four rivet holes set in pairs. The shoulders are straight and short and project outwards at an acute angle. There are never any perforations present but about half the examples have a ricasso. In form the blade is slightly leafshaped and is of flat lozenge section.

COS. ANTRIM/DERRY RIVER BANN

No. 1 (Fig.11). The lower part of the blade is wanting, what survives has again been broken and the object is now in two

parts. Three of the perforations retain their rivets. They average 13mm. in length and are roughly circular in shape with a diameter of 4mm.

250	45	7
60	38	-

M.M.B. L.37: 1934.

COS. ANTRIM/DOWN RIVER BANN

No. 2 (Fig. 11). In good state of preservation. The surface of the blade is somewhat rough and a slight ridge runs parallel to the edges. The extreme tip is wanting.

517	50	7
59	39	17½ ozs.

M.M.B. 105: 1951.

COS. ANTRIM/DERRY R. BANN

No. 3 (Fig. 11). The outer casing of the two upper perforations has been broken off and the extreme tips of the shoulders are wanting. The surface of the blade is pitted.

467	-	6
60	34	14½ ozs.

M.M.B. 108: 1951

CO. DERRY. CUTS, COLERAINE.

No. 4 (Fig. 11). The handgrip has been damaged on each side at the pommel end, but it is still possible to discern two rivet holes in the edge of the fracture. On one side the blade has been well smoothened down, but the other is somewhat rough. It has been broken at two points (rejoined

by modern solder) and the edges are blunt and have suffered some damage.

457	48	8
64	32	11½ ozs.

N.M.I. W23 (C.C.7: 8)

CO. DONEGAL.

No. 5 (Fig. 11). Well preserved. The surface of the blade is reasonably smooth and largely free from patination. There is a ricasso.

615	52	7
72	36	18 ozs.

N.M.I. 1890: 1

CO. FERMANAGH. PORTORA

No. 6 (Fig. 11). The edges have been trimmed and hammered but otherwise the weapon received little treatment and the surface remains somewhat rough. On one face several blow holes occur near the point. The rivet-holes are slightly bevelled on each face, perhaps the result of drilling. Present whereabouts not known, description and illustration based on Hodges.

52	46	-
71	44	-

Bibliography:

Hodges, H.W.M. "Some Recent Finds of Bronze Implements," U.J.A., 20(1957), 64, fig. 1 No. 1.

CO. KILDARE PASSLANDS

No. 7 (Fig. 11). Well preserved. The surface is reasonably smooth and there is a ricasso present.

504 52 6

69 33 13 ozs.

N.M.I. 1940: 310 (c.24: 14)

CO. MAYO BALLINTOBER

No. 8 (Fig. 11). The surface of the blade is reasonably smooth. A very low ridge runs parallel to the edges which are drawn out from that point. There is a ricasso present.

504 55 8

69 37 16 ozs.

N.M.I. 1936: 1984 (Exhibited)

CO. MEATH BOHERMEEN

No. 9 (Fig. 11). It has not been possible to trace this weapon and the illustration is based on Wood-Martin. He states that the sword was found in a crannog at Bohermeen and that it was 19 inches (c.480 mm.) long and 1⅞ inches (c.47mm.) wide at the broadest part.

Hodges (1956, 51) incorrectly gave the find spot of this sword as Toome, Co. Antrim.

Bibliography:

Wood-Martin, W.G.: The Lake Dwellings of Ireland (London, 1886), 171, Pl. 37.

CO. OFFALY WALSH ISLAND

No. 10 (Fig. 11). In a good state of preservation. The edges of the rivet holes project outwards a little and there is a ricasso. The blade is reasonably smooth and its edges

are sharp.

430	54	8
64	36	12 ozs.

N.M.I. 1932: 6556 (c.5.22)

Bibliography:

Report N.M.I., 1931-2, p.12, Pl. 2 No. 3.

CO. TYRONE — STRABANE

No. 11 (Fig. 11). This sword has suffered considerable damage and is broken across just below the shoulder. The tip is wanting and the edges have been bluntened for their entire length. The outer casing of the holes and one side has been broken off. The shoulders too, have almost all become detached. The surface of the blade is smooth and bears a greenish patination. Due to the damaged edges the blade is now almost parallelsided.

Stated to have been found with some fragments of gold and piece of ring money at Strabane in 1879.

410	-	5
55	-	-

M.M.B. 477. 1937

CO. WESTMEATH — ATHLONE

No. 12 (Fig. 11). Well preserved, the edges of the blade have been drawn out slightly and there is a ricasso.

493	53	6
72	47	18 ozs.

N.M.I. W.42

RIVER SHANNON

No. 13 (Fig. 11). One of the holes still retains its rivet, 17mm. long. Part of the surface of the blade has been corroded and some small sir holes are present. It has been broken across at a point 140mm. from the tip, but was subsequently rejoined by modern solder. In places a low ridge runs parallel to the edges and there is a ricasso.

535	50	7
60	36	16½ ozs.

N.M.I. W.68(U.7:8)

IRELAND

No. 14 (Fig. 11). The sides of the handgrip have been damaged but nevertheless the remains of 4 rivet holes can be discerned. One shoulder juts out abruptly, but the other appears to have been cut down somewhat. The blade is dark in colour and the surface has not been smoothened down or treated very effectively.

475	47	6
66	35	12 ozs.

Armagh Pub. Library

IRELAND

No. 15 (Fig. 11). This sword has suffered some damage. The outer casing of one of the upper rivet holes has been broken off and the tip of one shoulder is detached. The blade, broken at two points, has been repaired by modern solder and it is difficult to say if the present tip is original. The blade swells gently and reaches a maximum width at about midpoint. At about two-thirds its way down the blade narrows to the extent that for the remainder of its length

it is almost parallel sided. The surface is somewhat rough.

472	-	7
65	35	-

M.M.B. 1911: 133A

CO. FERMANAGH LOUGH ERNE

No. 16 (Fig. 12). The lower portion of the blade of this sword is wanting. The edges of the surviving portion are blunt, part of the surface, and that of the hilt is corroded. Each of the 4 perforations have a headless rivet in position. The upper pair of rivets are 12mm. long and the lower pair 10½mm.

210	43	-
57	-	-

N.M.I. R.S.A.I. 155(A.7:8)

IRELAND

No. 17 (Fig. 12). This sword has suffered considerable damage having been broken in six different places. Five of the breaks have been rejoined by modern solder, but the tip is missing altogether. The blade has been well smoothened down and the edges are drawn out slightly.

475	50	7
63	47	-

N.M.I. W.41 (A.7:8)

IRELAND

No. 18 (Fig. 12). It would appear that portion of the sides of the handgrip at the shoulder end have been cut away, resulting in the shoulder having its present flat and straight top. Along the edge of some of the perforations there is a slight raising in the adjoining metal. The blade has been

well smoothened down and is of bright yellow bronze.

Hodges (U.J.A., 19(1956), 51 lists this sword as from Co. Cavan but Wilde does not mention a find place.

448	46	7
36	43	14 ozs.

N.M.I. W.43 (U.7:8)

Bibliography:

Wilde, William Catalogue, 444, Fig. 317: 43

IRELAND

No. 19 (Fig. 12). Fragment of a much damaged sword. The surviving portion consists of a short part of the hilt and blade. The blade is lozenge shaped in section, and, at the present tip it is 7mm. in maximum thickness and 24mm. in width. It widens out to a maximum width of 31mm. at the shoulder. Just above this point a slight thickening in the hilt takes place, but from there it gradually contracts, both in thickness and width, to the present pommel end. The hand-grip, is also lozenge shaped in section. This, and perhaps the shoulder too, retains evidence of rivet holes, but in the latter instance it may be due to damage.

The features that this fragment possesses shows that it belongs to Class I.

Present length 108mm. N.M.I. W.79 (U. 7: 11)

IRELAND

No. 20 (Fig. 12). Two of the rivet holes are situated at the extreme end and their outer casing is missing. The sides are bulged at the lower pair of perforations. A low ridge follows the outline of the edge and some slight incisions of the surface are present. There is a ricasso and the blade section is flat oval.

520	50	7
75	36	17 ozs.

N.M.I. S.A.1898: 113(U.7:6)

IRELAND

No. 21 (Fig. 12). The tip of one shoulder has been broken off. Underneath there is a ricasso.

547	52	7
73	39	20 ozs.

N.M.A.S., D.M.9

IRELAND

No. 22 (Fig. 12). The lower pair of perforations retain their headless rivets which are about 15mm. long and 3mm. in diameter. There is a slight suggestion of a ricasso. The surface of the blade is free from patination and is reasonably smooth. The edges have been drawn out.

488	50	6
73	35	13½ ozs.

N.M.A.S. D.M.13

IRELAND

No. 23 (Fig. 12). Portion of the handgrip of this sword is wanting. The surviving stump contains 2 perforations. One of the shoulder tips has been broken off. The surface of the blade is reasonably smooth and clean.

448	-	6
-	48	17¼ ozs.

N.M.A.S. D.M.14

CLASS 2.

These are large weapons having flanged handgrips that projects slightly to each side at the end. The grip normally reaches its maximum width at about midpoint but some have parallel sides. The majority of examples have a central slot, the remainder are riveted. The shoulders are always rounded and contain perforations. The blade is long and pointed and the leafshaped outline is not emphasised. The section is lozenge in shape.

CO. ANTRIM TOOME

No. 24 (Fig. 12). Fine weapon in good state of preservation. The handgrip is almost parallel sided and the centre is occupied by an elongated slot. The end projects slightly to each side. The shoulder originally contained a slot and small rivet hole on each side. On one side the tip and consequently the outer casing of the hole has been broken off. The blade edges are quite sharp.

Found during drainage work in the River Bann near Toome Castle.

672	-	8
102	38	23¾ ozs.

N.M.I. W.1

Bibliography:

Wilde, William Catalogue, 468. Fig. 335 (hilt only)

CO. CLARE COHY

No. 25 (Fig. 12). Most of the blade of this sword is wanting. The centre of the grip is occupied by a slot and a swelling out of the blade is carried up in the form of a narrow tongue to its base. The shoulders contain a total of 4 rivet holes and there is a slight ricasso underneath. The surviving portion of the blade is almost parallel sided, it is flat oval in section and the edges are drawn out slightly.

203	57	-
102	-	-

N.M.I. 1932: 6685(C.6:14)

CO. FERMANAGH BALLANAMALLARD

No. 26 (Fig. 12). The grip possesses strong flanges that are semi-circular or D shaped to the sides. They have been damaged on one side. There are 3 rivet holes present and at the end a slight projection to each side. The shoulders contain 8 perforations. Underneath there is a ricasso. The surface of the blade is reasonably smooth and the edges are sharp. For most of its length a slight groove, that starts at the bottom rivet hole on each shoulder, follows the outline of the edges.

540	57	7
103	35	19¼ ozs.

B.M. 64. 5-3. 1(1)

CO. MONAGHAN LISLEITRIM

No. 27 (Fig. 12). In good state of preservation. The handgrip terminates in a straight ended fish tail projection. There are 2 rivet holes present and these retain their rivets, 15mm. long and 4mm. in diameter. The rivets have slightly clenched heads. Between these the centre is occupied by an

elongated slot. The shoulder contains 6 perforations 4 of which have their rivets in position. These have clenched heads and average about 9mm. in length. There is a ricasso underneath. The hilt possesses bone handle plates. On one face this extends from the upper rivet hole down to about mid-point on the ricasso, on the obverse it extends from the top of the shoulder to the pommel end.

Most of the surface of the blade is covered with a darkish patination and some blow holes are present. Towards the tip the edges are bevelled. Found in the summer of 1865 in Lisleitrim Bog.

610	58	9
105	41	27½

N.M.I. S.A. 1913: 118

Bibliography:

Day, Robert — J.R.S.A.I., 10, (1868) 234

" " — J.C.H.A.S., 14, (1905), 80

Catalogue of the Day Collection (1913), 43, Pl. 15, lot. 310

Evans, John. The Ancient Bronze Implements ... of Great Britain & Ireland (1881), 295-6, Fig. 358-360

Raftery, Joseph, Prehistoric Ireland (1951), Fig. 174

CO. KILDARE — ATHY

No. 28 (Fig. 12). This sword is in an excellent state of preservation. The grip contains 3 perforations and the shoulders 4, 3 of which retain their rivets. These have clenched heads, and the upper pair average 15mm. in length and 5mm. in diameter. The lower example is 12½mm. long and of similar diameter. There is a ricasso underneath. The surface of the blade is reasonably smooth, it possesses a distinct midrib and slight ridge runs parallel to edges and towards the point the midrib is flanked by a shallow groove.

605	66	9
95	45	21 ozs.

N.M.I. R.240 (66.7.8)

CO. KILDARE BARROWFORD

No. 29 (Fig. 13). Only a stump of the handgrip survives. The shoulder contains 4 perforations and each of these retain its rivet. The pair at top are 15mm. long and the lower pair about 12mm. long. All average 5mm. in diameter and have obliquely cut heads. The sword lacks ricasso, but under the shoulder for about 25mm. the edges have not been sharpened.

The blade suffered some slight damage, perhaps at the time of finding. It has a distinct centre midribs and a ridge runs parallel to the edges, which are drawn out from that point and are quite sharp.

Found in the River Barrow during drainage operations.

527	59	8
-	37	-

Watts Collection

CO. ROSCOMMON.

No. 30 (Fig. 13. Pl. 12. 4) for description see p. 407

No. 31 (Fig. 13). The lowermost part of the blade is wanting and the edges of the surviving portion have suffered considerable damage. On the surface the blade shows a midrib flanked by a narrow groove on each side, which gives a sectional profile of a pointed oval. The centre of the grip is occupied by a slot. The shoulders contain a total of 6 perforations. There is a slight ricasso underneath.

According to Wilde an analysis showed that this sword contained 87.94 copper, 11.35 tin, and traces of lead, zinc, and sulphur.

305	60	-
91	-	-

N.M.I. W.94 (CC. 7: 8)

No. 32 (Fig. 13). In bad state of preservation, most of hilt and blade is wanting and the surface is corroded. There are the remains of 2 rivet holes in the shoulder and the blade is of flat lozenge section.

The lozenge sectioned blade and the apparent presence of a handgrip suggest that this is a Class 2 sword.

Length 189mm. Ash. Oxon. 1927: 2895

IRELAND

No. 33 (Fig. 13). Most of the handgrip of this sword is wanting. What survives possesses a thin web and slight flanges. These are the remains of a rivet hole or perhaps a slot at the fractured end. The shoulders contain a total of 4 perforations, 2 on each side. The blade for most of its length is parallel sided. The surface is somewhat rough and pitted. A low ridge runs parallel to the edges and the extreme tip is wanting. The damaged nature of this sword make classification difficult but on the strength of the shoulder convexity and the lozenge sectioned blade it is being assigned to Class 2.

515	50	6
-	32	-

M.M.B. 474: 1937

The following 9 fragments belong to either Class I. or Class 2 swords.

CO. ANTRIM BELFAST

No. 34 (Fig. 13). Towards the tip the edges are drawn out.

334 - 7½

- 39 -

U.M.A.C. W.R. 27: 619B

CO. ANTRIM BELFAST

No. 35 (Fig. 13). Portion of blade extending from about the narrowest part to tip. The surface bears a dark patination and in places there is an accretion of iron oxide. A slight ridge runs parallel to the edges which have suffered some damage.

430 - 6

- 46 -

U.M.A.C. W.R.27: 619A

CO. ANTRIM TULLY BALLYDONNELL

No. 36 (Fig. 13). The surface is quite rough.

313 - 7

- 34 -

M.M.B. 265: 1947

COS. ANTRIM/DERRY RIVER BANN

No. 37 (Fig. 13). Part of the surface is pitted. A small narrow groove runs parallel to the edges about 8mm. in. Towards the tip the edges have been drawn out.

247 - 11

- - -

M.M.B. L.34: 1934

COS. ANTRIM/DERRY LISLEA

No. 38 (Fig. 13). Towards the tip the edges have been drawn out.

Found in bed of River Bann at Reas Ford, Lislea.

482	-	8
-	43	-

M.M.B. 88. 1954

CO. TYRONE nr. DONAGHMORE.

No. 39 (Fig. 13). The surface is reasonably smooth and the edges are sharp and bevelled.

380	-	8
-	42	-

Armagh Mus. 24: 1942

IRELAND

No. 40 (Fig. 13). The upper part ~~of this~~ has suffered extreme damage and the sides have been hacked down.

312	-	6
-	~~6~~	-

M.M.B. 3890(6.6)A

IRELAND

No. 41 (Fig. 13). The surface is reasonably smooth and the edges are fairly sharp, but have suffered some damage. Towards the point they are slightly drawn out.

260	-	8
-	-	-

N.M.I. 1897: 49(U.7:8)

IRELAND

No. 42 (Fig. 13). The surface is slightly irregular and in places a very shallow groove runs parallel to the edges which are blunt

220 - -

- - -

N.M.A.S. D.M. 34

IRELAND

No. 43 (Fig. 13). This sword is in a very bad state of preservation. The upper portion of the handgrip is wanting as is the tip of the blade. The remaining part of the handgrip contains 2 rivet holes and is 24mm. in maximum width. It has thin flanges on both sides, and these run down the straight sided shoulders, but fade out about half way down. The web between these flanges is very thin, being only a little more than 1mm. in thickness. There are 4 rivet holes in the shoulder but the outer casing of one is broken off. The swelling of the blade continues up into this area. The edges of the blade, particularly on the sinister side, have suffered considerable damage. It is lozenge shaped in section and tends to taper towards the point. At a distance of 120mm. from the present tip, the blade is 20mm. in width and 6mm. in maximum thickness.

Present length: 312mm. N.M.I. 42(CC 7:11)

The lozenge sectioned blade and thin web are early features but the straight shoulders prevent us from assigning the weapon to Class II. It may be a derivative.

CLASS 3 AND 3A

The handgrip, usually flanged, reaches a maximum width at about midpoint and ends in a narrow right angled projection to each side. The shoulders project abruptly and are straight at the top and bottom. Both shoulder and grip is perforated but all lack a ricasso. The blade is only slightly leaf-shaped - some are of lozenge section while others are flat oval.

In handgrip and terminal form Nos. 51-54 are similar but they lack the pointed shoulder and the blade section is different. They, in some way, seem to be connected to Class 3 and on that account are being designated Class 3A.

COS. ARMAGH/MONAGHAN

No. 44 (Fig. 13). The handgrip contains low but stout flanges. The tip of the terminal on one side may have been broken off. In the centre there are 3 perforations. A slight swelling out of the base of the blade continues up to the lowermost one and from that point, 2 shallow incised lines run up the grip on each side of the holes. There are 3 rivet holes in one wing of the shoulder and 2 in the other, but the outer casing of the lower example, and consequently the tip of the shoulder has been broken off. The blade bears a greenish patination throughout, and the tip is wanting. The surface has not been effectively smoothened down and the edges are not very sharp. In section it is a pointed oval.

590	-	8
105	40	10 ozs.

Armagh Mus. 110: 1935.

CO. LONGFORD GRANARD

No. 45 (Fig. 13). The handgrip is plain and is almost parallel sided. There are 3 rivet holes present and 3 shallow grooves run parallel to each other, up the web. One of the terminal wings is wanting. The shoulders contain two perforations. There are tiny pits all over the surface of the blade, but it is smooth and free from patination and is of bright brass colour. The section of the blade is a very flat lozenge.

542	47	7
105	37	16 ozs.

N.M.I. 1959: 170 (B.19:4)

Bibliography:

National Museum of Ireland: Archaeological Acquisitions in the year 1959. J.R.S.A.I., 91(1961), 84-5.

CO. LONGFORD

No. 46 (Fig. 13). Small weapon. The handgrip tends to terminate in a squarish finial, but originally this may have been winged. There are 3 rivet holes in the web and 3 parallel grooves. The shoulders contain 2 perforations, but the outer casing of one, and consequently, the shoulder tip has been broken off. The blade is lozenge in section. What appears to be traces of wood grain, perhaps from the mould, are visible over the surface. The weapon is covered with a darkish patination.

398	-	6
85	32	19¼ ozs.

N.M.I. 1959:171(B.19:4)

Bibliography:

National Museum of Ireland: Archaeological Acquisitions in the year 1959. J.R.S.A.I., 91(1961), 85, Fig. 19.

IRELAND

No. 47 (Fig. 14). This is a strong and cumbersome weapon. The handgrip possesses distinct flanges and these continue down the shoulders. The centre is occupied by 5 rivet holes. The shoulder contains 6 perforations, but the outer casing of one, and consequently the extreme tip is missing. An elongated swelling extends up the shoulder as far as the lower perforation in the grip. The tip of the blade is wanting and the edges are blunt. The surface has been smoothened down somewhat and in section it can be described as lozenge-shaped.

550	51	12
104	40	-

N.M.I. 25.4.1939(C.24:6)

IRELAND

No. 48 (Fig. 14). This sword is in a good state of preservation, but apart from that it is an inelegant and unattractive looking object. The handgrip is flangeless and has 4 counter sunk rivet holes averaging 4mm. in diameter; the area between these is slightly hollowed. The grip is almost barrell shaped in outline and one of the terminal wings is wanting. The blade is flat and featureless, it has a pronounced leafshaped outline.

648	50	6
105	44	-

N.M.I. - (CC.7:11)

IRELAND

No. 49 (Fig. 14). The handgrip has slight flanges and the pommel½ end is wanting. There are 3 perforations in the centre and these are flanked on both sides by shallow grooves. A swelling out of the base of the blade extends up to the lower hole. The shoulders contain a total of 4 perforations, 2 on each side. The blade bears a greenish patination. In section it is flat oval and the edges have suffered some damage.

592	26	7
103	41	22 ozs.

Pub. Lib. Armagh.

No. 50 (Fig. 14). Well preserved. The grip is flanged and has 4 rivet holes. Whereabouts not known, description on illustration based on Day Catalogue.

629	47	-
101	40	-
		-

Bibliography:

Catalogue of the Day Collection (1913) 42, lot 304.
Pl. 15.

CO. DERRY BALTERAGH

No. 51 (Fig. 14). The grip contains low flanges that extend down the shoulder and the web is ridged. There are 3 rivet holes present and a depression at the pommel end may have been intended for a 4th. In places the surface of the blade contains slight pits and the edges have suffered extensive damage.

620	44	6
104	-	18 ozs.

B.M. W.G. 1227

CO. DERRY NEWTOWN LIMAVADY

No. 52 (Fig. 14). The blade has low flanges. One of the wings of the terminal has been broken off. There are 3 rivet holes present and there is ridging over the surface of the web. In the shoulder there are 6 perforations.

618	30	6
104	39	22 ozs.

Ash. Oxford. 1927: 2891.

Bibliography:

Evans, John. The Ancient Bronze Implements ..... of Great Britain & Ireland (1881), 291, Fig.354

IRELAND

No. 53 (Fig. 14). The handgrip has slight but strong flanges. There are 3 perforations present and a depression for a 4th. On each side of these a slight ridge occurs. The shoulder contains 3 rivet holes on each side, but the outer casing of the lowermost example on the sinister side has been broken off. The centre is occupied by a slight triangular shaped swelling that extends up to the lowermost perforation in the handgrip.

The blade bears a greenish patination and the edges have suffered some damage.

624	-	8
104	41	8½ ozs.

Pub. Lib. Armagh

IRELAND

No. 54 (Fig. 14). The handgrip possesses strong flanges and these continue, however, somewhat contracted, down the shoulders. The grip contains 3 rivet holes and on each side two slight channels occur. The swelling of the blade continues up to the lowermost hole. The shoulder contains

6 rivet holes. The surface of the blade is somewhat rough and the tip is wanting.

590	42	7
-	41	-

N.M.I. 1890: 32(CC.7:5)

CLASS 4

The grip is flanged and reaches its maximum width nearer the shoulder than the end. The grip normally terminates in a straight ended projection to each side and in more than half the examples the centre is occupied by a slot, the remainder have rivet holes. The shoulders are straight and very broad. Underneath there is a concave sided ricasso. The blade has a pronounced swelling and it is flat oval in section.

CO. ANTRIM CARNSTROAN

No. 55 (Fig. 14). The centre of the handgrip is occupied by a slot and the terminal top is rounded. The shoulder contains 6 rivet holes, some of which have a ridge of metal around the edges. The middle hole on the dexter side contains a roughly square sectioned rivet 14½mm. long. Across the shoulder, in a lunate shape, a slight thickening of the metal occurs.

The blade has been broken across at a point 297mm. from the tip. It is of flat lens section and the edges appear to be slightly drawn out.

Found during turf cutting at the foot of Slemish Mountain. In trying to straighten it, the finder broke it.

590	58	5
103	43	18½ ozs.

N.M.I. - (B.3:13/14)

Bibliography:

Knowles, W.J.: "Report on some recent Finds in Co. Antrim,"
J.R.S.A.I., 19(1889), 111

" " " "Some Undescribed Bronzes,"
U.J.A., 9(1903), 182-3, Fig. 10.

Catalogue of the Knowles Collection, (1927), lot 654

CO. CAVAN — BALLINAGH DISTRICT

No. 56 (Fig. 14). This sword has suffered some damage, the blade has been broken at two different places and the edges are serrated. The flanges continue down the shoulder. The centre is occupied by a slot. There are 4 perforations in the shoulder. The blade is of flat lens section. For most of its length a slight ridge runs parallel to the edge. It bears a blackish patination throughout and the surface is somewhat rough.

530	50	6
105	40	16 ozs.

N.M.I. 15-3-1939(C.14:12)

CO. CAVAN — EONISH

No. 57 (Fig. 14). This sword is in a good state of preservation. The flanges continue down the shoulders, gradually fading out about half way down. There are 2 rivet holes present, each with a lip of metal around the edge. There are 4 perforations in the shoulder. The surface of the blade is reasonably smooth, it is of flat pointed section with bevelled edges that are quite sharp.

590	65	7
104	45	23 ozs.

N.M.I. 1941 : 1043(C.28:24)

CO. CAVAN CLOGH OUGHTER CASTLE

No. 58 (Fig. 14). In a good state of preservation. The grip flanges continue down the shoulder gradually fading out at about the halfway stage. The centre is occupied by a long and irregularly shaped slot and the grip terminates in a hollowed right angled projection. The shoulders contain 4 rivet holes. The blade is of brownish yellow colour, its surface is reasonably smooth and its edges are sharp. It is flat oval in section and the edges are bevelled.

505	51	5
94	40	14 ozs.

N.M.I. 3-12-1937(C.28:3)

CO. CLARE NOOAN

No. 59 (Fig. 14). In a bad state of preservation, it is broken at three different places and the tip of the blade is wanting. The handgrip has been broken off at the point of mergence from the shoulder, but a new grip has been cast on. This has not been executed very satisfactorily and it is set somewhat to one side. The present grip is narrow and flanges gradually emerge out of the web. Towards the pommel end there is an apperture in the centre. The shoulder contained a slot on each side, but the outer casing of that on the sinister side has been torn off. Underneath the side of the blade has been damaged.

The blade is of flat oval section, it has bevelled edges which have been damaged.

Found in the spring of 1895 in a potatoe garden on the top of Keentlea, Nooan townland.

550	-	6
99	37	14 ozs.

N.M.I. 1942: 70(B.10:4)

<u>Bibliography</u>:

Macnamara, George U., "Inchiquin, Co. Clare," J.R.S.A.I., 31,(1901), 358,ff., No.10.
34 (1904) 358 ff No 10

CO. CORK YOUGHAL

No. 60 (Fig. 14). Pl. 14 No. 1. For description see p. 412

CO. CORK YOUGHAL

No. 61 (Fig. 15). Pl. 14 No. 2. For description see p. 412

CO. DONEGAL ARDS BEG

No. 62 (Fig. 15). This sword has suffered some damage. The pommel end of the handgrip is wanting while the surface of the blade is rough and pitted and the edges are gapped. There are the remains of a rivet hole at the fractured end of the grip and it possesses very slight flanges, really nothing more than a thickening of the edges. The shoulder contains 2 perforations. Underneath, the blade narrows rapidly giving a somewhat beaked like appearance to the shoulder tips. The leaf shaped blade is flat oval in section.

Found under 4 feet of peat in a bog at Ards Beg, Gortahork, Co. Donegal.

490	45	5
-	34	-

Rossnowlagh Museum.

CO. DONEGAL CATHLEENS FALLS

No. 63 (Fig. 15). In good state of preservation. There are 4 perforations in the handgrip, the pommel end is hollowed and has a narrow and pointed projections to each side. The shoulder contain 4 rivet holes, 2 on each side and underneath the blade cuts away rapidly giving a rounded beaked like effect to the shoulder tips. The blade is plain and featureless. It is lenticular in section.

Discovered during drainage operations at Cathleens Falls, Lough Erne.

545	52	7
102	42	-

Rossnowlagh Museum.

CO. FERMANAGH LOUGH ERNE

No. 64 (Fig. 15). Well preserved sword with 2 perforations in both shoulder and grip and low ridge running parallel to the edges.

Present whereabouts not known, illustration base on Day Catalogue Pl. 15 lot 300.

589	59	-
99	43	-

Bibliography:

Catalogue of the Day Collection (1913), 41 Pl. 15 lot 300

CO. FERMANAGH MAGUIRES BRIDGE

No. 65 (Fig. 15). The pommel end of the handgrip is missing. The surviving portion is flangeless and is only 3mm. thick. It contains 2 perforations and reaches its maximum width of 22mm. at the lower hole. The shoulder

contains 2 holes, but the outer casing of both has been broken away. The blade is of bright brown colour and its surface is smooth. It is of flat lens section and a slight ridge follows the outline of the edge.

546	47	5
-	43	-

N.M.I. 1873: 1(CC.7:6)

CO. GALWAY BALLINTOBER.

No. 66 (Fig. 15). This sword is in a good state of preservation. The handgrip possesses strong flanges and these continue down the shoulder gradually fading out near the tip. It was intended to have had an elongated apperture in the centre, but it has only been perforated through at both ends. The shoulder contains 4 rivet holes. The surface of the blade is smooth and the edges are bevelled. It is of flat lens section.

490	57	5
100	45	15 ozs.

N.M.I. 1945: 63(B.5:12)

CO. KILDARE CASTLEDERMOT

No. 67 (Fig. 15). Most of the handgrip is wanting and the portion that remains narrows as it approaches the shoulder. At the fractured end there are the remains of a rivet hole or, more likely, a slot. There are six rivet holes in the shoulder, the upper example on the left side has a pointed rivet in position.

Most of the surface of the blade is covered with a blackish patination resulting in a smooth effect. The edges, particularly towards the tip, appear to have been drawn out

slightly.

557	52	7
-	50	-

N.M.I. 1945: 304(B.5:14)

Bibliography:

Fitzgerald, Walter, "A 17th century Skillet and Bronze Sword at Kilkea Castle," J.K.A.S., 3(1899-1902) 265-7.

CO. LIMERICK — LOUGH GUR

No. 68 (Fig. 15). The pommel end of the handgrip is wanting and a thickening and roughening of the metal occurs at the point of mergence from the shoulder. A slot occupies the centre of the grip. The shoulder contains a total of 6 rivet holes. A slight ridge runs parallel to the blade edges and these have been drawn out from that point. They have suffered some damage.

562	54	6
-	48	-

N.M.I.? 1888: 11 (CC.7:5)

Bibliography:

O'Kelly, M.J., "A Survey of the Antiquities in the Barony of Small County, Co. Limerick," N.M.A.J., 4,(1944-5), 35.

CO. MONAGHAN — GLENISH

No. 69 (Fig. 15). Slight remains of darkish patination and on the hilt there is some green corrosion. There is a slot 25mm. long, in the centre of the grip and the shoulder contains 6 perforations, one of which retains a broken rivet. The blade has been broken but was neatly repaired. A ridge runs parallel to the edges.

Present whereabouts unknown. Illustration and description based on the B.A. Card Catalogue of Bronzes.

592	58	5
98	43	-

Bibliography:

Catalogue of the Knowles Collection (1924) 42, Pl. 4.

? CO. WESTMEATH RIVER SHANNON

No. 70 (Fig. 15). Well preserved but with dark patination covering the surface. The grip contains 2 perforations and there are 6 in the shoulder. Near the shoulder junction a spread of metal occurs on the grip but it does not appear to have been cast on. There is a distinct swelling in centre of the shoulder.

Stated to have been found in the bed of the River Shannon and as the sword was formerly in the Chapman Collection, Killua Castle, Co. Westmeath it is possible that it was found in that county. For a time it was deposited by Sir Benjamin Chapman in the Museum of the Royal Irish Academy and was indexed by Wilde and numbered 56 in the Catalogue.

568	56	6
98	49	-
		Swan Collection

Bibliography:

Wilde, W.E.: Catalogue of the Antiquities in the Museum of the Royal Irish Academy, (1861), 442, fig. 313

Wood-Martin, W.G.: Pagan Ireland, (1895), Fig. 193.

IRELAND

No. 71 (Fig. 15). The flanges rise to a height of 4mm. all round and extend down the shoulder, somewhat diminished, fading out near the tip, The centre is occupied by a slot. One of the terminal wings has been broken off. The shoulder contains 3 rivet holes on each side. The surface of the blade has not been smoothened down very effectively. There is a ridge running parallel to the edges but these have suffered considerable damage and are cut back to the outer edge of the ridge.

558	56	5
99	45	563.9 gms.

Alnwick Castle No. 391

IRELAND

No. 72 (Fig. 15). Most of the handgrip is wanting. The surviving stump contains distinct flanges and these extend down the straight sided shoulder. The latter contains a total of 4 rivet holes set in pairs on each side. The surface of the blade is reasonably smooth, the edges have suffered some damage and the tip is missing.

525	59	5
-	37	-

M.M.B. 1911: 1336 B

IRELAND

No. 73 (Fig. 15). The lower portion of the blade is wanting. The surface of the surviving part is smooth and the edges are bevelled. The flanges rise to a height of 2mm. and the terminal is rounded at the end. The grip possesses 3 rivet holes with irregular edges. It has been broken across at the bottom of the lower most of these. The shoulder has an elongated aperture on the dexter side and it

appears that it was intended to have a similar slot on the sinister side but there portion of the metal in the centre has not been broken away.

262	57	6
—	40	-

N.M.A.Scot. D.M.23

"IRELAND"

No. 74 (Fig. 15). The hilt and blade come from two different weapons and have been joined a short distance below the ricasso apparently with lead solder.

The handgrip is flanged and the terminal is rounded at the end. The centre is occupied by a slot, and there are 2 further slots, 1 on each wing, of the ~~sided~~ shoulder. The blade is plain, the surface is pitted and has a flattened midrib that is drawn out to the sides. A break about 170m. from the tip has been repaired by lead solder.

The sword is labelled as from Ireland. The hilt is that of a Class ~~4~~ 5 weapon. The blade portion is unusual. It could possibly have come from a Class ~~4~~ 5 sword.

550	56	5
102	33	-

P.R.Oxon. 2625: 1501

PROBABLY IRELAND

No. 75 (Fig. 15). In good state of preservation. In the centre of the grip there is an elongated slot. The shoulder contains 6 perforations, 2 of which retain rivet stumps. The blade is plain and is pointed oval in section.

467	44	6
98	33	13 ozs.

B.M. 66. 6-27. 114

This is probably a late and somewhat degenerate Class 4 weapon.

CO. ANTRIM CLOUGH

No. 76 (Fig. 16). In good preservation and bearing greenish patination. The surface is reasonably smooth but there are some small pits. The handgrip is almost parallel sided, It possesses strong flanges and the web between these is thin. There are 4 rivet holes present and at the end the grip extends to each side in very narrow projections. There are 4 perforations in the V shoulder and a slight ricasso underneath. This is unusual as the edges are milled. The blade is a pointed oval in section and the edges have been neatly drawn out.

533	47	8
91	39	-

Hunt Collection No. 93

This is an unusual weapon but good parallels can be found among Hemigkofen swords on the continent, especially a sword from Ertvelde (Brussels) (Cowen 1951, Pl. 12 No. 5). Like that from Ertvelde the Clough sword also has the flanges curling out to form an 'eared termination' and the arrangement of the rivet holes is also similar, but the most significant feature is the typical Hemigkofen ricasso consisting simply of a milled edge to the blade (Cowen Op. Cit. 196).

It is difficult to explain the presence of such a sword in Ireland. Cowen considers the Ertvelde sword as a "late form" so perhaps this sword got to Ireland some time after the arrival of the "earlier forms" in the Thames valley. But one should expect others and it is difficult to understand how one isolated sword got to the north of Ireland direct from the Continent if the Collectors bag is ruled out.

This sword is not included on the distribution map of Class 4 swords.

CO ARMAGH TYNAN ABBEY

No. 76A (Fig. 16). Well preserved, the grip is slotted and there are 6 perforations in the shoulders.

625	50	5
108	41	-

Private - Sir Norman Strong.

CLASS 5

These swords vary in detail and size. The grip reaches its maximum width a third of the way up from the shoulder and at the end it projects to each side to form a straight ended finial. The shoulders are always straight and a swelling occupies the centre. Both shoulder and grip contain rivet holes. The grip may or may not be flanged, the same applies to the presence of a ricasso. The blade is of medium leafshaped form. A number of examples have a surface that shows a rounded central swelling with a broad and shallow groove on each side and a ridge along the edges. The section can be elliptical or varying to a flat oval.

CO. ANTRIM BALLYMENA

No. 77 (Fig. 16). This sword has suffered some damage. The handgrip is flanged and these extend down the shoulder, but on one side the flange has almost all been broken off. There are 2 perforations present and a depression between these indicates that it was originally intended to have another. One of the terminal projections has been broken off. There are 4 rivet holes, 2 on each side, in the shoulder and between these the unperforated depression for another. A curved line extending across the shoulder from tip to tip indicates the lowermost extent of the handle. Underneath there is a ricasso.

Most of the surface of the blade is rough, but portion is quite smooth and bears a green patination. The edges have suffered considerable damage and the tip is wanting. The blade is lenticular in section and a ridge runs parallel to the edges which are drawn out from that point.

565	52	6
103	41	-

M.M.B. 467: 1937

Bibliography:

Catalogue of the Day Collection, (1913), 43, Pl. 15, No. 309

CO. ANTRIM BALLYMENA

No. 78 (Fig. 16). The blade has been much overcleaned, and the end of the broken handgrip trimmed down. Holes are pierced to take 4 rivets. 3 of these are of an unusually large size.

Whereabouts unknown, illustration based on Day Collection Catalogue.

583	58	-
-	42	-
		-

Bibliography:

Catalogue of the Day Collection, (1913), 42, Pl. 15 lot. 305

CO. ANTRIM BALLYMONEY

No. 79 (Fig. 16). The handgrip possesses slight flanges. There are 2 perforations present and a ridge runs up the web on each side of these. The shoulder contains 4 rivet holes and the unperforated depressions for 2 more which

would have made a total of 3 on each side. The blade has a pointed oval in section and has been broken near the tip.

480	48	5
98	32	13½ ozs.

M.M.B. 544: 1924

Bibliography:

Catalogue of the Knowles Collection, (1924), 42, No.656

CO. ANTRIM BALLYMONEY

No. 80 (Fig. 16). The handgrip is flanged and contains 3 rivet holes. There are 6 perforations in the shoulder, it has "beakes" and a ricasso underneath. The blade is elliptical in section and a ridge runs parallel to the edges. This weapon is well preserved. The surface is very smooth and the hilt is golden bronze in colour. On the blade there is a dark bluish green patina speckled with lighter colour.

Information from B.A. Card Catalogue of Bronzes.

482	48	7
96	36	-

In 1920 the sword was in the collection of W.C. Wells, Esq., Sadlebury, Harrow, Middlesex.

CO. ANTRIM BELFAST

No. 81 (Fig. 16). Only a stump of the handgrip survives. This possesses slight flanges. There are 2 rivet holes in the shoulder and a triangular shaped swelling emerging out of the base of the blade extends up to the fractured end. The blade has been broken at two points - at its widest and narrowest parts. It is lenticular in section and the edges have been drawn out.

Found in 1866 12 feet below the surface while excavating for new water supply on Antrim Road, Belfast.

491	48	5
-	39	-

M.M.B. 4023 (6.7)

CO. ANTRIM CLOUGH

No. 82 (Fig. 16). The surface of this sword is fairly smooth, in colour it is bright bronze with dark stains. A few small patches of light green patina occurs. The grip has low flanges. There are 3 rivet holes present and 4 in the shoulder. Underneath there is a ricasso. The blade is elliptical in section and the edges have been drawn out.

489	46.5	7
103	38.5	486.45 gms.

B.M. W.G. 1233

CO. ANTRIM CROSS KEYS

No. 83 (Fig. 16). The handgrip has been damaged. The pommel end is wanting and it has been broken a short distance above the point of mergence with the shoulder. There is a rivet hole present and the remains of another in the fractured end. The shoulder contains 4 perforations, but the outer casing of one, and consequently the tip of the shoulder has been broken off. There is a thin black patina over the hilt. The surface of the blade is pitted along the centre on each side. It has been cleaned and is now a dull golden bronze in colour. The centre is occupied by a rounded swelling that is flanked on each side by a broad and shallow groove and a ridge along the edges. The latter are very sharp. Near the tip there is a small hole that has been filled with bronze of a different colour to that in the blade.

Whereabouts unknown, information from B.A. Card Catalogue

of Bronzes.

473	42	6.5
-	36	-
		-

Bibliography:

Catalogue of the Knowles Collection, (1924), 42 No. 657

CO. ANTRIM CUSHENDALL

No. 84 (Fig. 16). Handgrip wanting. The shoulder contains 4 perforations. The blade has been broken at 2 places, but the uppermost break has been repaired. It is elliptical in section and in places a low ridge runs parallel to the edges which have suffered some damage.

The surface of this sword is smooth. It bears a fine green patination streaked with greenish brown stains, this has flaked off along the edges.

Whereabouts unknown, information from B.A. Card Catalogue of Bronzes.

377	43	6
-	32	-
		-

Bibliography:

Catalogue of the Knowles Collection, (1924), No. 658.

CO. ANTRIM STRANOCUM

No. 85 (Fig. 16). Darkish in colour and in reasonably good state of preservation. Towards the edges the grip thickens slightly. At the uppermost rivet hole it has been broken across but both pieces are now joined by lead solder. This hole is unusually large, indeed it may have been widened in more recent times and this may have caused the break. There are 2 large holes in the shoulder and the unperforated depression

for 4 more. The blade is elliptical in section and faint traces of a ridge can be discerned running parallel to the edges.

504	49	7
99	39	18⅛ ozs.

B.M. W.G. 1232

CO8. ANTRIM/DOWN — FORD ACROSS LAGAN BELOW 1st LOCK

No. 86 (Fig. 16). Only blade survives, the surface of this is slightly rough. In section it is a pointed oval and in places a low ridge can be discerned running parallel to the edges, which are quite sharp.

536	-	7
-	38	-

M.M.B. 3822 (6.2)

CO. ANTRIM — TOOME

No. 87 (Fig. 16). The handgrip possesses slight flanges. It contains 2 rivet holes but has been broken across at the lower example. There are 2 perforations in the shoulder and a ricasso underneath. The entire lower portion of the blade is wanting. It is of flat lens section. The surface is reasonably smooth and the edges are drawn out slightly.

420	51	5
105	44	-

N.M.I. 1935: 867(C.18:12)

CO. ANTRIM — BOG nr. TOOME

No. 88 (Fig. 16). Apart from the fact that the handgrip has been broken off at the point of mergence from the shoulder, this sword is in a good state of preservation. The grip is flanged and contains 2 rivet holes, each with its headless

rivet 19mm. long in place. The swelling of the blade continues up the shoulder area, but on reaching the handgrip it bifurcates and extends up the grip in the form of two raised ridges running each side of the rivet perforations. The 'fish tail' terminal has been cast on.

The straight sided shoulder has 2 rivet holes each of which has a headless rivet averaging 11mm. in length and 5mm. in diameter in position. Underneath the shoulder there are deep ricasso notches. The blade is heavy and is grooved and bevelled.

This sword when found is said to have been in a wooden sheath that was broken up by the turf diggers.

524	47	9
—	44	-

N.M.I. 1903; 14

CO. ANTRIM TOOME BAR

No. 89 (Fig. 16). Most of the handgrip of this sword is wanting, the surviving portion has distinct flanges which continue down the shoulders but fade out near the point. At the fractured end traces of a rivet hole are discernable. The shoulder contains a total of 6 rivet holes and the metal has been thinned down in the area which they occupy. There is a well formed ricasso underneath. The blade has a pointed oval section and a slight ridge follows its outline. The surface is quite smooth and has a brownish-grey colour. In places tiny air holes are present.

510	54	6
-	45	-

N.M.I. W.10 (CC. 7: 5)

CO. ANTRIM TOOME BAR

No. 90 (Fig. 17). This sword is in an excellent state of preservation. It has been well smoothened down and the

material used (? sand) has left very slight incisions over the surface. The blade is of light brown colour but the hilt is dark, perhaps due to the presence of a handle. The handgrip has very slight flanges. There are 2 perforations for rivets and two more in the shoulder. Underneath the edges have been somewhat bluntened giving a ricasso effect. The blade is of flat lens section, but is otherwise featureless.

602	53	6
-	43	20½ ozs.

N.M.I. W. 4 (CC. 7: 5)

COS. ANTRIM/DOWN — R. BANN SOUTH OF TOOME RLY. BRIDGE

No. 91 (Fig. 17). In good state of preservation. The handgrip is plain, it possesses 3 rivet holes. A short distance in from the edges two low and narrow parallel ridges run up portion of the grip. The shoulder contains 6 perforations, 3 on each side. There is a ricasso underneath. The blade is flat oval in section and the edges have been drawn out.

629	52	5
100	46	26½ ozs.

M.M.B. L4: 1932

Bibliography:

Lawlor, H.C.: "Objects of Archaeological Interest in the Lough Neagh and River Bann Drainage Scheme" J.R.S.A.I., 62(1932), 209, Pl. 6 No. 1.

COS. ANTRIM/DERRY — TOOME

No. 92 (Fig. 17). In excellent state of preservation, the surface is smooth and appears to have received the maximum post casting treatment. The handgrip is flanged and these extend down the shoulders. A very low ridge runs along the web parallel to the flanges. There are 2 perforations present each of which contain a rivet 18mm. long and 4mm. in diameter.

These have very slightly clenched heads. The shoulder contains 2 perforations which retain rivets 15mm. long and 5mm. in diameter in position. There is a ricasso present. The blade is flat oval in section and a slight ridge runs parallel to the edges which are drawn out, especially towards the tip, from that point.

560	47	5
100	38	18½ ozs.

M.M.B. 464: 1937

COS. ANTRIM/DERRY — RIVER BANN BETWEEN TOOME WEIR & RLY. BRIDGE

No. 93 (Fig. 17). The upper part of the hilt from shoulder tip to tip and the lower part of the blade is wanting. There are the remains of 2 perforations at the broken end and a ricasso underneath. At the fracture the blade is lenticular in section and the edges have been drawn out.

Found during Bann drainage between Toome Weir and Railway Bridge. It may show Hallstatt influences.

185	49	5
-	31	-

M.M.B. 212: 1955

COS. ANTRIM/DERRY — R. BANN AT SOMERSTE

No. 94 (Fig. 17). This sword is in a bad state of preservation. Most of the handgrip, one shoulder, and portion of the blade has been broken off. It would appear that the handgrip possessed slight flanges and there are the remains of a perforation at the fractured end. The surviving shoulder contain a rivet hole and the unperforated depression for 2 more. There is a ricasso underneath. The blade is of lenticular section.

476	-	-
-	-	-

B.M.A.G. L25: 1936

COS. ANTRIM/DERRY RIVER BANN

No. 95 (Fig. 17). The handgrip is flanged, or more particularly a gradual thickening of the web towards the edge. There are 2 perforations present, but the upper is in the shape of a figure of 8 and may have been 2 holes with the dividing strip broken resulting in a somewhat slot like effect. A triangular shaped swelling out of the base of the blade extends up to the lower hole, there it bifurcates into 2 raised ridges that continue up the grip. The shoulder contains 2 perforations and there is a ricasso underneath. The shoulder tips are slightly rounded. The blade is bent. A ridge runs parallel to the edges which have suffered some damage.

458	41	6
100	33	13 ozs.

Dep. of Archaeology, Q.U.B.

COS. ANTRIM/DERRY RIVER BANN

No. 96 (Fig. 17). The handgrip has been cast on at the junction with the shoulder. While flangeless in the strict sense of the word nevertheless, a slight thickening from centre of web to the edges occurs. There are 2 rivet holes present. The shoulder contains 2 perforations and originally these may have been a very slight ricasso underneath. In outline the blade widens slightly, but this feature isn't very marked. It is pointed oval in section.

465	45	7
98	32	13¾ ozs.

M.M.B. L.35: 1934

COS. ANTRIM/DERRY RIVER BANN

No. 97 (Fig. 17). The handgrip is flanged. There are 2 perforations present, and these are flanked on each side by a raised ridge. In the centre of the terminal there is a small perforation. The shoulder contains 2 perforations and there

is a ricasso. The blade is lenticular in section and a slight ridge runs parallel to the edges which are drawn out towards the tip.

545	44	8
102	37	20¾ ozs.

M.M.B. L.36: 1934

COS. ANTRIM/DOWN RIVER BANN

No. 98 (Fig. 17). The handgrip has been cast on at the point of junction with the shoulder. It is plain and contains 2 perforations as does the shoulder. There is a slight ricasso underneath. The blade widens but slightly, the surface is smooth and the section is flat oval with the edges, which are sharp, drawn out.

429	38	6
99	31	13 ozs.

M.M.B. 103: 1951

COS. ANTRIM/DERRY RIVER BANN

No. 99 (Fig. 17). In good state of preservation. The handgrip has slight flanges, or more particularly a thickening of the edges. There are 3 perforations present and the end of the terminal is slightly rounded. The shoulder contains 4 rivet holes, the lower example on each side being the larger. The blade is flat oval in section and a very slight ridge runs parallel to the edges, these have suffered some slight damage and the extreme tip is wanting.

600	51	5
105	35	17½ ozs.

M.M.B. 107: 1951

COS. ANTRIM/DERRY R. RANN

No. 100 (Fig. 17). In reasonably good state of preservation. The handgrip contains 3 perforations and is broken across at the uppermost of these. It thickens a little towards the sides. There are 6 rivet holes in the shoulder. The surface of the blade is dark in colour and it is slightly irregular. It is pointed oval in section and a slight ridge runs parallel to the edges.

623	50	5
103	40	21 ozs.

P.R. Farnham

CO. ANTRIM

No. 101 (Fig. 17). The hilt of this sword has suffered considerable damage. The handgrip and portion of the shoulder, across from tip to tip, has been cut off. A short and narrow stump has been left and the remains of a rivet hole are present in the fractured end. Underneath there is a slight ricasso. The surface of the blade has been thoroughly cleaned and the original smooth bronze surface is showing up. In section the blade is a pointed oval and the edges are bevelled and drawn out.

529	48	5.5
-	43	-

N.M.A. Sect., D.M.42

CO. ANTRIM.

No. 102 (Fig. 17). Almost the whole of the hilt has been cut away from a point flust with the tips of the shoulders. All that now remains is a narrow stump 14mm. wide and 49mm. long. There are the remains of a hole at the fractured end and another near the base, but the latter may have been caused at the same time as the mutilation. The blade has been well cleaned and is in an excellent state of preservation. It is

flat oval in section and the edges are bevelled and drawn out. There is a ricasso.

563	48	5
-	41	-

N.M.A.Scot., D.M.43

CO. ARMAGH BALLYMACANAB

No. 103 (Fig. 17). The handgrip is flangeless and it contains 2 perforations. There are 2 more in the shoulder and the depression for a 3rd. The edges of the blade cut away rapidly underneath the shoulder, but there does not appear to be a ricasso present. The blade is a flat, or perhaps a pointed, oval in section. A slight ridge runs parallel to the edges and these have suffered some damage. The blade has been broken across at a point 194mm. from the tip. It has been repaired, but this is obviously modern.

475	42	6
98	32	12½ ozs.

N.M.I. W.54 (CC.7:7)

CO. ARMAGH MULLYLEGGAN

No. 104 (Fig. 17). There are 2 rivet holes in the handgrip, the lower of which retains its rivet 35mm. long. The grip was broken at about midpoint and the upper plain half has been cast on. There is a spread of metal at the base of the original grip and it has low flanges. The shoulder contains 2 holes and the depression for 2 more. There is a slight ricasso underneath. The hilt still retains its handle plates on each side. These are of bone. The blade has been broken, but was repaired by lead solder. The surface is smooth and in places bears a blackish patination. It is lenticular in section and a slight ridge runs parallel to the edges. These have suffered slight damage.

508	42	6
103	31	16 ozs.

N.M.I. 1959: 172(B.19:4)

Bibliography:

Evans, John, The Ancient Bronze Implements ... of Great Britain and Ireland (1881), 296, Fig., 361-2.

Graves, Rev. James, J.R.S.A.I., 12(1872-3), 257

CO. ARMAGH

No. 105 (Fig. 18). This sword has suffered considerable damage. The handgrip has been broken off at the point of mergence from the shoulder, but has been repaired in recent times by means of 2 rivets and solder. Both ends now overlap thus shortening the grip. The grip has slight flanges and in the centre there are 3 perforations. The shoulder contains 2 rivet holes and there is a ricasso underneath. The blade has been broken across at about its present mid-point, but has again been repaired by riveting together the overlapped ends. At present the blade has almost parallel sides, it, however, appears that the lower portion of the blade is not part of the original as in section it shows a broad flattened midrib, the sides of which are drawn out to form the edges. On the other hand the upper hilt part gives in section a flattened oval with a ridge running parallel to the edges. For the whole length of the blade the edges have suffered some damage.

445	50	6
-	30	-

Armagh Mus. 176: 1935

CO. ARMAGH

No. 106 (Fig. 18). The handgrip possesses low but stout flanges and there are 2 rivet holes in the centre. The join of the mould is clearly visible on the sides. There are 2 perforations in the shoulders and a ricasso underneath. The centre is occupied by a triangular shaped tongue that extends up to the lowermost perforation in the grip. The blade has been broken across a short distance below the ricasso. It has been repaired by overlapping both ends and riveting them

together. However, it would appear that portion of the blade is wanting altogether, and indeed the lowermost part may not originally have belonged to the sword at all. This portion assumes a leafshaped form, it is flat oval in section and the surface is reasonably smooth. The edges are quite blunt and are slightly bevelled towards the tip.

462	53	6
98	39	-

Armagh Mus. 177: 1935

CO. CARLOW nr. CARLOW

No. 107 (Fig. 18). Portion of hilt and blade. The surviving part of the handgrip contains a rivet hole, with stump in place, and there are the remains of another at the fractured end. There are 4 perforations in the shoulder, 3 of these contain portionsof their rivets, and a ricasso underneath.

The Museum register state that this sword was "found with many others in the River Barrow near Carlow."

194	44	7
-	-	-

B.M. 47. 1-13.1

CO. CARLOW BALLON HILL

No. 108 (Fig. 18). Handgrip entirely wanting. The shoulder contains 4 perforations. One of these retains a rivet stump. There is a slight ricasso underneath. The blade is a pointed oval in section and a ridge runs parallel to the edges. These have suffered some damage. The blade has been broken across at a point 122mm. from the tip, apparently, in fairly recent times. The surface is reasonably

smooth and it bears a greenish patination.

375	47	6
-	33	-

N.M.I. 1928: 454 (C.4:3)

Bibliography:

Mahr, Adolf; "Recent Acquisitions of Archaeological Finds made by the National Museum, Dublin" J.R.S.A.I., 60(1930), 74.

CO. CARLOW GRAIGUE

No. 109 (Fig. 18). Of this sword only the lower portion of a much damaged blade survives. The fractured end is bent round in hook like fashion and the edges are considerably gapped. It is flat oval in section and most of its surface bears a bluish green colour.

Present length 244 N.M.I. 1930: 519(C.3:14)

CO. CAVAN ARDLON

No. 110 (Fig. 18). The surface of the blade is somewhat uneven, but nevertheless, it is reasonably smooth and is largely free from patination. It shows a rounded central swelling, this is flanked on each side by a narrow groove and a ridge along the edges. Near the tip a small round hole in the blade has been filled. There are 4 perforations in the shoulder, but the tip of that on the dexter side, and consequently the outer casing of the holes, has been broken off. The handgrip is obscured by a large bone handle. This is held in place by 2 rivets and is not original. As far as can be determined the grip is flangeless, it reaches its maximum width about two-thirds its way down and terminates

in a straight ended projection to each side.

326	-	6
98	32	-

N.M.I. 1930: 127(C.42:6)

CO. CAVAN BALLYCONNELL

No. 111 (Fig. 18). This small sword has suffered some damage. The blade has been broken across at the narrowist part and the pommel end of the hilt is wanting. A spread of metal across the surface near the fracture suggests that the broken piece was affixed but again became detached. The handgrip has very slight flanges, it contains a rivet hole and traces of another are visible at the broken end. The swelling out of the base of the blade continues up to the lowermost hole, it then bifurcates and extends up the grip in the form of two raised ridges. The shoulder contains 2 perforations, but the outer casing of one has been ripped away. The surface of the blade is reasonably smooth. It is elliptical in section and in places a slight ridge can be discerned running parallel to the edges.

488	40	6
-	26	-

N.M.I. 1929: 1520(C.2:25)

CO. CAVAN CLOGH OUGHTER CASTLE

No. 112 (Fig. 18). This sword is in a good state of preservation and its surface is largely free from patination or accretion of any kind. The handgrip possesses stout flanges and these continue down the shoulder for a short distance. There are 2 rivet holes present. The shoulders are very slightly rounded at the tips. They contain 2 holes and the unperforated depressions for 2 more. There is a

ricasso underneath. The blade is elliptical in section and a ridge runs parallel to the edges which are reasonably sharp.

464	40	7
98	31	15 ozs.

N.M.I. 10-12-1937(C.28:6)

CO. CAVAN LOUGH OUGHTER

No. 113 (Fig. 18). This is a very find specimen of bronze sword and except for the fact that the extreme tip is wanting it is in an excellent state of preservation. The surface has been very well polished throughout, it is bright brown in colour and the edges are quite sharp. The handgrip possesses strong flanges and these also project outwards slightly. There are 3 rivet holes present, the middle example retaining a rivet, 17mm. long and 3.5mm. in diameter, in position. Two ridges run parallel to the flanges. The shoulders are very slightly hollowed. They contain 3 rivet holes and the unperforated depression for a 4th. Underneath there is a well formed ricasso. The blade shows a flattened rounded midrib, flanked by a broad and shallow channell, and a ridge running parallel to the edges.

510	51	9
99	38	20 ozs.

N.M.I. 1933: 587(C.8:23)

Bibliography:

Report N.M.I. 1932-3, p.14, Pl. 3 No. 1.

CO. CAVAN CROSSDONEY

No. 114 (Fig. 18). Most of the hilt of this sword is wanting. Traces of 2 rivet holes are discernible just above the shoulder tip, and there is a very slight ricasso underneath. The blade is of flat lens section and it is

featureless. Its surface is reasonably smooth and is largely covered by a blackish patination.

540	48	6
-	38	18 ozs.

N.M.I. 1933: 5074(C.8:23)

Bibliography:

Report N.M.I., 1932-3, p.14. Pl.3 No.4

CO. CAVAN KILDALLAN

No. 115 (Fig. 18). This sword is in a good state of preservation. The hilt has slight flanges or more specifically a thickening towards the edge, a feature that is more noticable on one side than the other. These continue down the shoulder for a short distance. The handgrip contains 2 rivet perforations and a depression for a third that has not been fully bored. The shoulder contains 2 rivet holes and the unperforated depression for a further 2. There is a very slight ricasso underneath. The blade is flat oval in section and a slight ridge follows the edge about 4mm. in. Most of the surface is covered with a darkish patination and this gives a smooth surface, but in parts it tends to flake away revealing a rougher surface and some slight air holes are present.

600	50	7
100	42	24 ozs.

N.M.I. R.1570 (CC.7:5)

Bibliography:

Wilde, William R., P.R.I.A., 8,(1861-4), 329

CO. CAVAN KILMORE BOG

No. 116 (Fig. 18). Lower portion of blade. It is in a very bad state of preservation and has suffered considerable damage. It is bent to such an extent that it assumes in section an S shaped profile.

290 - 8

- 41 -

N.M.I. R.1688(CC.7:11)

CO. CAVAN LISADERG

No. 117 (Fig. 18). Blade fragment. The fracture faces are not patinated like the rest of the surface. There is a central thickening that narrows out towards the edges which are gapped and have a narrow bevel. The surface is somewhat rough and uneven.

140 - 6

- 40 -

N.M.I. P.1955: 2(B.12:4)

CO. CAVAN SLANORE

No. 118 (Fig. 18). The handgrip is plain and contains 3 perforations. It had been broken across between the 2 upper holes and the present pommel end has been cast on. There are 2 holes in the shoulder and a ricasso underneath. The blade shows a rounded midrib and a ridge towards the edges.

480 42 8

100 33 13½ ozs.

N.M.I. 1936: 1971(C.19:2)

CO. CAVAN SNAKEEL & CORDALEA

No. 119 (Fig. 18). This sword is in an excellent state of preservation. The handgrip possesses strong flanges and contains 2 perforations, the uppermost of which has a stout round sectioned rivet, with slightly clenched heads, 16mm. long and 4mm. in diameter, in position. The shoulder tips tend to be slightly rounded. There are 2 perforations present and these have a very slight lip of metal around their edges. Underneath there is a ricasso. The blade is flat oval in section. It has been well smoothened down and a slight ridge runs parallel to the edges which are quite sharp.

575	46	7
99	37	20 ozs.

N.M.I. 5-7-1938(C.13:21)

CO. CAVAN ABBEY TRINITY ISLAND

No. 120 (Fig. 18). Lower portion of blade. It is flat oval in section and the edges are bevelled. The surface has not been smoothened down very effectively. The fragment is badly bent.

334	-	6
-	33	-

N.M.I. 1937: 2852(C.28:3)

CO. CAVAN

No. 121 (Fig. 18). In good state of preservation. The handgrip contains 2 perforations and has strong but shallow flanges and these continue down the shoulder. The latter has 4 perforations and there is a distinct ricasso underneath. The blade has a smooth surface and is a pointed oval in

section. A slight ridge runs parallel to the edges.

480	44	6
99	39	16 ozs.

N.M.I. W.44 (CC.7:6)

CO. CAVAN

No. 122 (Fig. 18). Apart from a stump, the entire handgrip is wanting. What survives possesses low flanges and the remains of a rivet hole at the fractured end. There are 2 perforations in the shoulder and a ricasso underneath. The surface of the hilt has been well smoothened down to a point running straight across at the bottom of the ricasso. Portion of the adjoining blade is quite rough. The blade is pointed oval in section. A slight ridge runs parallel to the edges which are drawn out from that point. These have suffered considerable damage and are gapped.

530	50	7
-	41	-

N.M.I. 140/49 Acq.6-9-1949

CO. CLARE BOOLYBRIEN

No. 123 (Fig. 19). Pl. 4 No. 5. For description see p. 317

CO. CLARE KILLALOE

No. 124 (Fig. 19). The unfinished appearance of the handgrip suggests that this portion of the sword received very little treatment after having being taken out of the mould. In places it possesses strong but low flanges and contains a solitary rivet hole. The shoulder tends to have

rounded tips and there are 2 rivet holes. There is a small perforation above the example on the right hand side, while on the other side 2 small holes occupy a somewhat similar position. Underneath there is a ricasso. The blade is elliptical in section. A slight ridge follows the outline of the edge. The surface is reasonably smooth, but nevertheless did not receive a final polishing.

486	41	10
100	34	17 ozs.

N.M.I. 1934: 72(C.12:13)

CO. CORK — CARRIGANINE

No. 125 (Fig. 19). This is a long sword. At the edges of the handgrip a slight thickening of the web occurs and there are 3 rivet holes. The shoulder contains a total of 5 holes and the unperforated depression for a 6th. There is a ricasso underneath. The blade edges have suffered considerable damage and are gapped and bluntened for practically the whole of its length. It is flat oval in section and a slight ridge runs parallel to the edges. A large portion of the surface of one of its faces is reasonably smooth and bears a greenish patination, but the other face is covered by an accretion and is quite rough in appearance. This may be the result of it having been deposited in (?) water.

635	51	7
102	45	27 ozs.

N.M.I. 1934: 11121(C.12:20)

CO. CORK — nr. CORK

No. 126 (Fig. 19). Most of the handgrip is wanting and the shoulder tips have been damaged; the latter contains 4 perforations. The blade is darkish in colour and shows a flattened central swelling that is flanked on each side by a

shallow groove and a ridge towards the edges. These are bevelled and towards the tip have been drawn out. The blade has been broken across at a point 251m. from the tip, but has been repaired by leddsolder.

474	-	6
-	32	-

B.M. 49: 3-1. 46

CO. CORK nr. CORK

No. 127 (Fig. 19). The handgrip has been cast on just above the shoulder, but the job is technically perfect. The grip is flangeless and contains 2 rivet holes, the uppermost one having the rivet still in position. Between these there is a depression which may be an intended rivet hole, or a hole that subsequently got filled up. Two parallel ridges run up the grip on each side of the rivet holes. The shoulder contains 2 rivet holes, underneath is a slight ricasso. The blade is plain, its surface is somewhat rough, and its edges are slightly damaged. It is flat oval in section and is broken at the narrowist part.

540	44	8
99	31	15 ozs.

N.M.I. W.28(CC.7:11)

CO. CORK KINSALE

No. 128 (Fig. 19). Only stump of the flanged handgrip, damaged shoulder and portion of blade survives.

Length 136mm. Swan Collection

CO. CORK MEADSTONE

No. 129 (Fig. 19). Most of the handgrip is wanting. The surviving portion possesses slight flanges and there are the remains of a rivet hole at the fractured end. The shoulder contains a total of 6 perforations, 3 on each side. Those on the right side and the lower example on the left contain rivets, between the rivets on that side there is an accretion, but it is difficult to say whether this is the remains of a handle or an accumulation of ironoxide. The surface of the blade, especially the lower half, contains deep pits and the edges have suffered considerable damage. The blade has a plain flat oval section.

473	48	6
-	-	-

M.M.B. 465. 1937

Bibliography:

Catalogue of the Day Collection (1913), 42, lot 306

CO. CORK TOOREEN MORE WEST

No. 130 (Fig. 19). This sword is in a bad state of preservation. Its surface is pitted and the edges are blunt and damaged. The blade is bent at the tip and again slightly at the narrowist part while most of the handgrip is wanting. The shoulder contains a total of 6 rivet holes, but the outer casing of some of these has been ripped away. There appears to be a slight ricasso, or rather perhaps, a bluntening of the edges underneath. The blade shows a broad rounded midrib flanked by a shallow channell and perhaps, a slight ridge towards the edge.

490	-	7
-	36	-

N.M.I. 1932: 4(C.5:7)

Bibliography:

Report N.M.I., 1931-2, p.13, Pl.2 No. 5

CO. CORK

No. 131 (Fig. 19). The grip is flanged, it was intended to have 5 holes but only one has been pierced and this retains a rivet stump. On each side two raised ridges occur. It was also intended to have 4 perforations in the shoulder but only the lower example in each wing has been bored and these have rivets. The blade has a ridge running parallel to the edges. Whereabouts unknown, illustration and description based on Day Collection Catalogue.

465	45	-
98	39	-
		-

Bibliography:

Catalogue of the Day Collection (1913) 42, Pl. 14 lot 303

CO. CORK

No. 132 (Fig. 19). Only blade survives. This is almost parallel sided and is a pointed oval in section. The blade has been broken in two places, (these breaks have subsequently been mended) and the tip is wanting. Over the surface a brownish black patination occurs.

Destroyed during World War II. Illustration from B.A. Card Catalogue.

375	-	7
-	34	318.93 gms.

Liverpool Museum 2.10.90.207

CO. DERRY AGIVEY

No. 133 (Fig. 19). The handgrip has been cast on at the junction with the shoulder. This is plain and contains 2 rivet holes but has been broken across at the uppermost of these and the pommel end is now wanting. There are 3

perforations in the shoulder, but one of these has almost been filled as a result of the repair to the handgrip. Underneath there is a ricasso. The blade is elliptical in section and a ridge runs parallel to the edges.

Found at Agivey Ford, Aghadoey.

520	48	6
-	38	-

Swan Collection

CO. DERRY nr. COLERAINE

No. 134 (Fig. 19). In bad state of preservation, the pommel end of the handgrip is wanting and the surface of the blade bears an accretion of iron oxide. The surviving portion of the grip contains a perforation and there are the remains of another at the fractured end. The shoulder contains a total of 6 perforations, 3 on each side, 5 of these contain rivet stumps. There is a ricasso. The blade has been broken across at about its narrowist part. In section it is flat oval and in places the edges appear to be drawn out.

Found in the River Bann at the "Cuts."

570	51	5
-	44	-

M.M.B. L.15. 1939

CO. DERRY FAUGHAN

No. 135 (Fig. 19). In bad state of preservation. The pommel end of the handgrip and the tip of the blade is wanting. The blade has also been broken at about its narrowest part and the edges, especially on the dexter side, have been badly damaged. The grip is flanged and contains 3 perforations. On each side of these a ridge occurs. From the top of the shoulder converging to the bottom of the lowermost perforation in the grip there are two raised bands.

There are 4 holes, one retaining its rivet, in the shoulder. From tip to tip a line showing in patina indicates base of hilt plates. Found near mouth of River Faughan.

483	48	-
-	-	-

Beatty Collection

DERRY/ANTRIM PORTGLENONE

No. 136 (Fig.19). Only part of the hilt and blade of this sword survives. The remaining stump of the handgrip is flangeless and portion of a rivet hole remains at the fractured end. The shoulder contains 2 perforations, but the outer casing of the example on the right side, and consequently the tip of the shoulder, is wanting. There is a ricasso on the left side. The surviving portion of the blade is featureless and is elliptical in section.

Present length 230mm. N.M.I. 1929: 1534 (c.3:1)

CO. DERRY?

No. 137 (Fig. 19). Only stump of handgrip survives. The shoulder has been badly damaged and it contains the remains of 6 rivet holes. The surface of the blade is reasonably smooth and over a large part of the surface bears a blackish patination. In section the blade is lenticular and in places a slight ridge runs parallel to the edges. The extreme tip is wanting.

548	-	5
-	40	-

Ash. Oxon. 1927: 2893

CO. DERRY

No. 138 (Fig. 19). Only a stump of the handgrip survives. This contains the remains of a rivet hole at the fractured

end. The shoulder contains 2 perforations and there is a ricasso. The surface of the blade is smooth and bears a thick green patination that has been filed off in places. The blade has been broken at about the widest part, but has been repaired, perhaps in modern times. As the ends do not match evenly it would appear that a piece is missing. The blade is elliptical in section and a ridge runs parallel to the edges which have suffered some damage.

Whereabouts unknown, description based on B.A. Card Catalogue of Bronzes.

496	54	6.5
-	39	-
		-

Bibliography:

Catalogue of the Knowles Collection (1924), 42, lot 655.

CO. DONEGAL ARDARA

No. 139 (Fig. 19). The handgrip is wanting. In the shoulder there are 6 rivet holes and underneath there is a ricasso. The blade is flat oval in section. The edges have been drawn out for a width of about 4mm. The surface is smooth and in places slight incisions are visible.

530	52	7
-	45	-

N.M.I. 1900: 45(CC.7:5)

CO. DONEGAL ARDS BEG

No. 140 (Fig. 20). Well preserved. The handgrip is flanged and there are 2 rivet holes present. The shoulder contains 2 perforations and there is a well formed ricasso underneath. The surface of the blade is reasonably smooth. In section it flat oval and a slight ridge runs parallel to the edges which have been drawn out from that point.

578	51	6
100	39	17 ozs.

Bibliography:

Report N.M.I., 1934-5 p.22, Pl. 3 No.3.

CO. DONEGAL BUNCRANA

No. 141 (Fig. 20). In good state of preservation. The surface of the blade is smooth, it is free from patination and is a dull bronze in colour. The handgrip is flanged and these extend down the shoulder. Its surface is dark in colour, there are 2 holes present and the lower of these contains a rivet stump. The shoulder possesses 2 perforations and there is a ricasso. The blade shows a rounded central swelling with broad shallow hollow on each side and ridge along the edges which are dented and wavy.

537	50	8
106	39	559 gms.

Salisbury Mus. B.521

CO. DONEGAL BUNCRANA

No. 142 (Fig. 20). In excellent state of preservation, the surface is smooth and free from patination. A thickening of the edge of the grip occurs. It contains 2 rivet holes and the unperforated depression for another. There are 4 holes in the shoulder and 2 slight dimples that may have been intended for 2 more. There is a ricasso. The blade is elliptical in section and the edges have been drawn out.

624	53	7
106	45	640.25 gms.

Salisbury Mus. B.709

CO. DONEGAL BURT CASTLE

No. 143 (Fig. 20). The plain handgrip possesses 3 rivet holes, the shoulder 2 and the unperforated depression for 2 more. The blade has been broken at two places. In section it is plain convex.

554	44	5
104	37	18¼ ozs.

M.M.B. 351 : 1924

CO. DONEGAL CARRAN

No. 144 (Fig. 20). Pl. 2 No. 2. For description see p. 321

No. 145 (Fig. 20). Pl. 2 No. 1. For description see p. 321

CO. DONEGAL INNISHOWEN

No. 146 (Fig. 20). In good state of preservation. Strictly speaking the handgrip does not possess flanges, but nevertheless, a slight thickening of the edges does occur. There are 3 countersunk perforations present, and a total of 4 in the shoulder, 2 on each side. There is a slight ricasso. The blade is flat oval in section, it has been broken across at about the narrowest part under the hilt, but was repaired in modern times. The surface is quite smooth and a slight ridge runs parallel to the edges. On the surface of the upper quarter of the blade there are some slight ridges, these

may be the result of differential colling of the metal.

598	51	5
105	41	21¾

M.M.B. 4024(6.65)

CO. DONEGAL LACKAGH

No. 147 (Fig. 20). This sword has suffered some damage. The handgrip was broken off at the point of mergence from the shoulder, a new one was cast on but this has now lost its pommel end. The grip has very slight flanges, there is a rivet hole present, and two low ridges that run up the grip converge at that point. There are 2 perforations in the shoulder and a ricasso underneath. The plain blade is of flat lens section.

535	51	6
-	39	-

N.M.I. 1941 : 331(C.24:21)

Bibliography:

Morris, H.: "Some Features of Irish Bronze Swords," C.L.A.J., 4(1916-20), 20, Fig. p.321, B

CO. DONEGAL LETTERKENNY

No. 148 (Fig. 20). Large lower portion of blade. From a width of 19mm. at the broken (hilt) end it widens to its maximum width 420mm. 160mm. from the point, from there it tapers to the tip. The blade is of flat oval section and is featureless, portion of its surface is covered with a dark patina. Near the point it is reasonably smooth but tends to roughen towards the broken end.

From the Museum Register it appears that part of the sword is now missing. In a descriptive note in the Register

the weapon is referred to as "Bronze sword ..... broken across near handle, the latter a rude elongation of blade, length 20½ inches."

390	-	5
-	420	-

N.M.I. 1880: 25(CC.7:11)

CO. DONEGAL MOOLAGH

No. 149 (Fig. 20). Pl. 10 No.1. For description see p.

CO. DONEGAL

No. 150 (Fig. 20). A very slight thickening at the edge of handgrip occurs. There are 3 rivet holes present and one of the projections of the terminal is wanting. The shoulder contains 6 perforations. The blade is plain and is elliptical in section. It is dark in colour and the surface has not been smoothened down very effectively. The blade has been broken at 2 places but has been repaired by lead solder.

487	49	7
104	35	448.5 gms.

Salisbury Mus. B.707

CO. DOWN BALLYCROGHAN

No. 151 (Fig. 20). Pl. 1 No.1. For description see p. 309

No. 152 (Fig. 20). Pl. 1 No.3. For description see p. 309

No. 153 (Fig. 20). Pl. 1 No.2. For description see p. 309

CO. DOWN BANBRIDGE

No. 154 (Fig. 20). The handgrip is plain, it contains 2 perforations and just above the uppermost of these the pommel end has been cast on. The shoulder contains 2 rivet holes. The surface of the blade is dull bronze in colour and there are some traces of light green patina present. It shows a central rounded swelling with a shallow groove on each side and a ridge along the edges which are bevelled.

542	49	8
98	39	536.56 gms.

B.M. W.G. 1230

CO. DOWN DROMARA

No. 155 (Fig. 21). Lower portion of blade. It is in good condition and has a smooth surface. In section the blade pertains to a flattened and pointed oval, and a slight ridge follows its outline about 5mm. in from the edge.

340	-	6
-	42	-

N.M.I. 1876: 75(CC.7:11)

CO. DOWN KILCO PARISH

No. 156 (Fig. 21). The handgrip is wanting and the swelling in the centre of the shoulder has been filed down. At that point a total of 5 small perforations occur. This may be the result of modern interference. The shoulder contains a total of 4 perforations, 2 on each side, but the outer casing of the bottom example on the left side has been broken off. The blade is plain and featureless, it is of plain convex section.

540	-	5
-	39	-

M.M.B. 469. 1937

CO. DOWN SCRABO

No. 157 (Fig. 21). Handgrip wanting. The shoulder contain 2 rivet holes but the outer casing of that on the right side and consequently the shoulder tip has been broken off. The remains of 2 further perforations are visible at the fractured end. There is a ricasso. The blade's surface shows a rounded midrib flanked by a shallow groove and a ridge towards the edges which are bevelled from that point.

Found in a railway cutting near Scrabo in 1874.

566 - 8

- 35 -

M.M.B. 466. 1937

Bibliography:

Catalogue of the Day Collection (1913), 42, Pl. 15, lot 307.

CO. DOWN SKETTERICK ISLAND
STRANGFORD LOUGH

No. 158 (Fig. 21). Pommel end of handgrip wanting. What survives has slight flanges and contains 2 perforations, the upper of which has a spread of metal around the edge. The shoulder contains 2 perforations and a curve running across from tip to tip indicates the base of the handle. It would appear that the handle was in position before the blade was finally smoothened down as the area that was covered by the plates is slightly higher than the adjoining surface outside it. The blade is lenticular in section and a slight ridge runs parallel to the edge.

544 46 6

- 36 -

M.M.B. 581. 1934

CO. DOWN SLIEVENALARGY

No. 159 (Fig. 21). This sword has suffered some damage. One of the wings of the terminal is missing and the plain handgrip has been cast on just above the shoulder. This has not been executed very neatly and a spread of metal covers the surrounding portions. The grip contains a counter sunk rivet hole. On the right side the shoulder is damaged but traces of a rivet hole and perhaps the depression for another ~~is~~ are visible. The left side contains 2 rivet holes and what may be the depression for a 3rd. This has got partly filled up as a result of the repair. Due to damage it is not possible to say if this sword possessed a ricasso, but the contrary seems to be the case. The blade is of flat oval section. A slight ridge runs parallel to the edge which has been bluntened in places. The surface is somewhat rough and there are air holes present in the bronze. The tip is wanting.

580	-	5.5
102	41	-

N.M.I. 1916: 23(CC.7:5)

CO. DOWN

No. 160 (Fig. 21). The handgrip is bent slightly, it contains 2 perforations and shallow flanges that extend down the shoulder. The grip swells from both ends and reaches a maximum width of 25mm. at the bottom hole. The straight sided shoulder contains 4 rivet holes, 2 on each side. Running across the shoulder there is evidence for the base of the handle. There appears to have been a slight ricasso. The blade has been broken at two points at its narrowest part underneath the shoulder, but was repaired rather crudely by modern solder. The blade is lenticular in section and a ridge runs parallel to the edges which are bevelled.

605	51	7
112	45	27½ ozs.

M.M.B. 1911: 39

CO. DUBLIN CLONTARF

No. 161 (Fig. 21). In good state of preservation. The handgrip is plain and contains 3 rivet holes. There are 6 perforations in the shoulder and a ricasso underneath. The surface of the blade is smooth, it is of flat oval section and a low ridge runs parallel to the edges.

588 51 5
109 40 25 ozs.

P.R. Farnham

CO. FERMANAGH BOA ISLAND

No. 162 (Fig. 21). Pl. 3 No. 1. For description see p. 311

CO. FERMANAGH DRUMCRAMPH

No. 163 (Fig. 21). This sword has suffered some damage. The handgrip was broken off at the junction with the shoulder, but was subsequently repaired by the casting on process. This work was not executed with great skill and there are some air holes present in the metal. The present grip is plain and flangeless and the pommel end is missing. It contains a rivet hole and the remains of another are visible at the fractured end. There are 2 perforations in the shoulder and a scarcely distinguishable ricasso underneath. The blade is of flat oval section. Most of its surface is covered by a thick and black patination, which gives a smooth effect, but in places this tends to flake away revealing a much rougher under surface. The edges appear to have been bevelled and the extreme tip is wanting.

Museum Register states that the sword was found with several other swords.

573 47 7
- 40 -

N.M.I. 1878: 27(B.3:13/14)

CO. FERMANAGH nr. ENNISKILLEN

No. 164 (Fig.21~~f~~). Lower two thirds of blade. The surface bears a grey green patina. In section the blade is flat oval and towards the fractured end the edges are bevelled. A short distance below this end the blade has been broken, apparently in recent times. The extreme tip is wanting.

433	-	4
-	37	-

N.M.D. OA. VII. j 50

CO. FERMANAGH ENNISKILLEN

No. 165 (Fig.21~~b~~). This is a heavy weapon and except for one of the wings of the terminal being missing it is in a good state of preservation. The handgrip possesses strong flanges 2.5mm. thick, it contains 2 perforations and a depression for a third that has not been fully bored. The swelling of the blade continues up to the lowermost hole. The shoulder contains 4 rivet holes and there is a deep ricasso notch underneath. The blade is of flat oval section and a distinct ridge runs parallel to the edge.

644	54	7
100	46	30 ozs.

N.M.I. 1900: 44(CC.7:5)

~~CO. FERMANAGH nr. ENNISKILLEN~~

~~No. 166 (Fig. 21). There are 3 perforations in the handgrip and it possesses slight flanges. The pommel end has been broken off. The shoulder contains 6 rivet holes. Underneath the blade cuts away but the weapon does not appear to have had a ricasso. The blade has suffered some damage and the edges bear a distinct bevel. Said to have been found in a cairn near Enniskillen.~~

~~608 57 6~~

~~- 41 -~~

~~Limerick Museum No. 126~~

CO. FERMANAGH nr. ENNISKILLEN

No. 166 (Fig. 21). There are 3 perforations in the handgrip and it possesses slight flanges. The pommel end has been broken off. The shoulder contains 6 rivet holes. Underneath the blade cuts away but the weapon does not appear to have had a ricasso. The blade has suffered some damage and the edges bear a distinct bevel.

Said to have been found in a cairn near Enniskillen.

608	57	6
-	41	-

Limerick Museum No.126

Bibliography:

Herbert, Robert: "The City of Limerick Public Library and Museum," N.M.A.J., 2(1940-1), 84

CO. FERMANAGH L. ERNE

No. 167 (Fig. 21). There are slight flanges on the handgrip and in the centre 3 rivet holes. There are 6 perforations in the shoulder, which possesses slight "beakes," and a ricasso underneath. The surface of the blade is smooth and is golden bronze in colour with traces of light green patina. It is elliptical in section and the edges have been drawn out.

Not examined, illustration and description based on B.A. Card Catalogue of Bronzes.

486	49	7
99	36.5	524.48 gms.

Herts. Co. Mus. 149

CO. FERMANAGH LOUGH ERNE

No. 168 (Fig. 21). Most of the handgrip and portion of the shoulders have been broken off. Apart from a very slight thickening of the edges the surviving portion of the grip is flangeless. There is a rivet hole at the fractured end. It would appear that the shoulders were straight sided and there is evidence that they contained at least 4 perforations, 2 on each side, but the outer casing of these, with the exception of the uppermost on the left side, which contains a round sectioned rivet 11mm. long, has been broken off.

The blade's surface is quite smooth. It has been broken at 3 different points but was subsequently repaired, but whether this repair took place in antiquity it is difficult to say. The edges have been damaged and the tip is wanting. The blade is flat oval in section and in places a slight ridge can be discerned running parallel to the edges.

491	-	6
-	36	-

M.M.B. 470: 1937

CO. FERMANAGH LOUGH ERNE

No. 169 (Fig. 21). In good condition. The handgrip possesses distinct flanges and 3 rivet holes. The terminal has been cast on. There are 6 perforations in the shoulder and a ricasso underneath. A short distance in from the base of the ricasso two tiny holes occur, but these appear to be the result of modern interference. The blade is plain and featureless and its surface is smooth.

604	51	6
100	40	-

Limerick Museum No.127

Bibliography:

Herbert, Robert: "The City of Limerick Public Library and Museum," N.M.A.J., 2(1940-1), 84.

CO. FERMANAGH LOUGH ERNE

No. 170 (Fig. 22). In reasonably good state of preservation but in places an accretion of iron oxide or verdigris covers the surface. The pommel end of the handgrip is wanting. There were 4 rivet holes in the shoulder and 2 in the handgrip but these have now become filled up. The central swelling of the blade continues up to the shoulder top where it bifurcates and extends up the grip in the form of two slightly raised ribs. The blade is flat oval in section and in places a slight ridge can be discerned running parallel to the edges.

540	47	6
-	41	-

Mus. Co. Louth Arch. Soc.
Dundalk No. 36.

Bibliography:

Catalogue of the Day Sale, (1913) No. 300 p.41 Pl. 15

Day, Robert: "Some Prehistoric Remains from Lough Erne" U.J.A., 2(1895-6), 55 Fig. 5.

" " : "Bronze Spearheads" J.C.H.A.S., 10(1901),123

Mc Kenna, J.E.: Devenish, its History, Antiquities, and Traditions (1897), 112 (middle sword)

CO. FERMANAGH LOUGH ERNE

No. 171 (Fig. 22). Flanged grip with 3 perforations, 6 holes in the shoulder and the lower extent of the hilt plates are indicated. Blade elliptical in section with drawn out cutting edges and ricasso.

484	45	6
103	36	-

Hunt Collection No. 92

CO. FERMANAGH — INNISLEAGUES ISLAND, UPPER LOUGH ERNE

No. 172 (Fig. 22). The pommel end of the handgrip is wanting. There is a rivet hole present and the remains of another at the fractured end. The grip contains narrow flanges that extend down the shoulders. The latter contains 2 perforations and there is a ricasso. The surface of the blade bears a patination. It is lenticular in section and a slight ridge runs parallel to the edges which have suffered some damage.

Found with No. 173 on the shore of Inisleague Island, Upper Lough Erne in 1933.

530	52	5
-	38	-

M.M.B. 505: 1935

Bibliography:

Lowry-Corry, Lady Dorothy and Davies, Oliver: "Recent Finds in Fermanagh," U.J.A., 1,(1938), 204

CO. FERMANAGH — INNISLEAGUES ISLAND, UPPER LOUGH ERNE

No. 173 (Fig. 22). Over most of its surface this sword bears an accretion of iron oxide. The handgrip possesses slight flanges. There are 2 perforations present and on each side of these a low ridge extends up the length of the web. The shoulder contains 2 rivet holes and there is evidence for a slight ricasso. The blade has a plain convex section and the edges are now quite blunt.

545	49	6
104	37	18 ozs.

M.M.B. 505: 1935

Bibliography:

As for No. 172.

CO. FERMANAGH MAGUIRES BRIDGE

No. 174 (Fig. 22). Only a stump of the handgrip survives, and the sides of this have been cut away. The shoulder contains 4 rivet holes, the lowermost example on each side being the larger. On one side traces of what appears to be the outline of the handle are tentatively visible. There is a slight ricasso. The blade is leafshaped and is of flat lens section. Traces of a slight ridge running parallel to the edge are discernable in places. The blade has a bright brown colour.

540	50	5
-	35	-

N.M.I. 1873: 2(CC.7:5)

CO. FERMANAGH PORTORA FORD, LOUGH ERNE

No. 175 (Fig. 22). The handgrip is flanged and there are 3 rivet holes present. The uppermost of these contains a rivet c.18mm. long. There are 4 perforations in the shoulder, but the upper pair have not been thoroughly bored. There is a ricasso. The blade only widens very slightly. It is flat oval in section and in places a slight ridge can be discerned running parallel to the edges.

444	46	6
105	30	14½ ozs.

M.M.B. 187: 1913

Bibliography:

Day, Robert: "Some Prehistoric Remains from Lough Erne" U.J.A., 2,(1895-6), 54-5

" " : "Bronze Spearheads" J.C.H.A.S., 10,(1901),123

Catalogue of the Day Collection (1913), 41, Pl. 14, No. 301

Mc Kenna, J.E.: Devenish, its History, Antiquities and Traditions (1897), 112

CO. FERMANAGH PORTORA, LOUGH ERNE

No. 176 (Fig. 22). The entire lower portion of the blade is missing, what survives is pointed oval in section. The handgrip is flangeless but the edges project outwards slightly. There are 2 perforations present and a swelling out of the base of the blade extends up to the lower of these, it there bifurcates and continues to the upper hole in the form of two low parallel ridges. There are 2 rivet holes in the shoulder.

202	41	8
100	37	-

Bibliography:

Catalogue of the Day Collection (1913), 42, No. 3064

Day, Robert: "Some Prehistoric Remains from Lough Erne," U.J.A., 2(1895-6), 54-5.

CO. FERMANAGH TEMPO

No. 177 (Fig. 22 Pl. 13 No. 2). For description see p. 410

No. 178 (Fig. 22 Pl. 13 No. 1). For description see p. 410

CO. GALWAY AHASCRAGH

No. 179 (Fig. 22). Plain handgrip with pommel end wanting. In the fracture there are the remains of a rivet hole. There are 2 perforations in the shoulder and a ricasso underneath. The blade has been broken at about the narrowest part and the tip is missing. Over most of the surface there is a blackish patination. The centre is occupied by a rounded swelling with a groove on each side and a ridge along the edges. The latter are dented.

Found on Clonbrock estate 1850-60 and given to owner's father by Lord Clonbrock,

Not examined, description and illustration based on B.A. Card Catalogue of Bronzes.

445	43	7
-	34	-

Private - Miss Evelyn Portal, Freemantle, Over-Wallop, Hampshire in the 1920's.

Bibliography:

Dillon, L. Gerald, J.R.S.A.I., 16(1884), 19

Redington, Matilda: "The Archaeological Section of the Galway Exhibition." J.G.A.H.S., 5(1907-8), 185.

CO. GALWAY AUGHANUIRE

No. 180 (Fig. 22). A slight thickening of the edge of the grip occurs. It contains 2 perforations and there are 2 further holes in the shoulder. The blade is bent slightly from middle to point. The surface is smooth, but there are some small pits. It is dark brown in colour with traces of blackish patination. In section the blade is elliptical with low ridge running parallel to the edges.

Found in 1909 on the surface of the bed of Lough Corrib near the Castle of Aughanuire.

Not examined, description and illustration based on B.A. Card Catalogue of Bronzes.

447	42	7
92	26.5	368.55 gms.

Herts Co. Mus. 147

Bibliography:

J.G.A.H.S., 6,(1909-10), 57

CO. GALWAY AUGHANURE

No. 181 (Fig. 22). The handgrip has been cast on at the junction with the shoulder. It contains slight flanges and there are 2 rivet holes present. The shoulders tend to have a slight rounded aspect and they contain a rivet hole on each wing. The blade is flat oval in section. The edge on the right side has been bevelled but that on the left side appears to have been ground back a little and this now gives the blade a somewhat lopsided appearance. The extreme tip also appears to have been filed off.

Found in 1909 on the bed of Lough Corrib near the Castle of Aughanure.

445	43	6
100	33	-

Hunt Collection No. 91

GALWAY BROOK LODGE

No. 182 (Fig. 22). Portion of blade. It is of flat oval section and a distinct ridge runs parallel to the edges 6mm. in. It widens from 29mm. to 35mm. In the centre of the blade at the widest end there is a perforation which appears to be modern.

Wilde (Catalogue, 475) states that this sword was found "with No. 85 (No.183) under about three feet of alluvion deposit resting on limestone gravel in drainage cut through Brook Lodge Demesne, Killeoran, Co. Galway, in 1851."

Present Length 98mm. N.M.I. W.76(CC.7:11)

CO. GALWAY BROOK LODGE

No. 183 (Fig. 22). Portion of blade. It is flat oval in section and a slight ridge runs parallel to the edges which have suffered some damage. The surface is smooth and has a yellowish colour throughout. This fragment narrows from a maximum width of 35mm. to 24mm. There is a

perforation near the broader end, possibly modern.

Present length 180mm. N.M.I. W.85 (CC.7:11)

CO. GALWAY BULLAUN

No. 184 (Fig. 22). The hilt has been broken at the point where the handgrip emerges out of the shoulder, but otherwise the weapon is in a good state of preservation. The handgrip has low but wide flanges, which also extend out slightly and it contains 3 rivet holes. There are 4 perforations in the shoulder and a ricasso underneath. The surface of the blade is reasonably smooth, it is flat oval in section and a distinct ridge runs parallel to the edges.

555	48	8
102	41	20 ozs.

N.M.I. 1931: 205(C.4:22)

Bibliography:

Report N.M.I., 1930-1, p.13, Pl. 3 No. 2

CO. GALWAY CARROWMORE

No. 185 (Fig. 22). In good state of preservation. The handgrip possesses very slight flanges. There are 2 perforations present and on each side of these a raised ridge runsup the grip. The shoulder contains 4 rivet holes and there is a ricasso underneath. The blade is of flat oval section, its surface has not been smoothened down very effectively, a ridge runs parallel to the edges.

507	43	6.5
103	35	14½ ozs.

N.M.I. P. 1954: 26(B.12:3)

CO. GALWAY LOUGH CORRIB

No. 186 (Fig. 22). In excellent state of preservation. The handgrip possesses distinct flanges and 3 rivet holes. The shoulders contain 6 perforations. Underneath there is a straight sided ricasso and the shoulder tips project outwards giving a slight beaked effect. A low ridge runs parallel to the edges of the blade which are bevelled.

480	50	6
100	39	-

Hunt Collection No. 94

CO. GALWAY DERRYOOBER EAST

No. 187 (Fig. 23). This sword is in an extremely bad state of preservation and is now in three parts. The pommel end of the hilt is wanting as is the extreme tip of the blade. Most of the surface is rough as a result of accretion on blade and hilt. This consists of submerged leaves of monocotyledonous water plants derived from the surrounding material in which it had lain. Near one of the rivets on the grip was a fragment of the wooden handleplate identified as ash (Fraxinus). It would appear that the handgrip possessed slight flanges and the surviving portion contains 2 large rivets each 24mm. long. The shoulder has 2 perforations, each with a badly preserved rivet in position. The blade is of flat oval section. In places a slight ridge running parallel to the edges can be discerned. There is a ricasso.

Found in 1952 about 1 foot below the surface of a cut away bog at Derryoober East

525	48	6.5
-	38	-

N.M.I. P.1952: 12(B.10:3)

Bibliography:

Hartnett, P.J.: Recent Finds from Connaught.
J.G.A.H.S., 25(1952), 25-6 Fig.2 No.28

GALWAY KEELOGUE FORD

No. 188 (Fig. 23). This sword is in a perfect state of preservation. The handgrip has slight flanges, and contains 3 rivet holes. The terminal end is hollowed. The shoulder contains 2 perforations and there is a well formed ricasso. The blade is flat oval in section and a slight ridge follows the outline of the blade about 4mm. in from the edge.

507	46	6
102	40	-

N.M.I. W. 18(CC.7:9)

CO. GALWAY KEELOGUE FORD

No. 189 (Fig. 23). In a good state of preservation. The handgrip possesses distinct flanges 2mm. high and 3 perforations for rivets. The shoulders contain 4 rivet holes and there is a ricasso. The blade is a pointed oval in section. It is slightly bent at the point and the extreme tip is missing.

480	46	7
100	36	16 ozs.

N.M.I. W.46 (CC.7:7)

GALWAY KEELOGUE FORD

No. 190 (Fig. 23). Fine specimen, the handgrip has slight flanges and contains 3 rivet holes. It is widest at about middle rivet hole and from there, two raised ridges run down, on each side of the perforations to the shoulder. The portion of the handgrip from just above the mid-rivet hole to the end has been cast on. The shoulder contains two perforations and there is a ricasso underneath. The surface of the blade is rough and it is grooved and bevelled.

500	46	6
98	39	-

N.M.I. W.47(CC.7:9)

CO. GALWAY MEELICK

No. 191 (Fig. 23). The handgrip is plain and appears to have been cast on at the shoulder junction. It contains a rivet hole and the unperforated depression for 2 more. The shoulder contains 2 perforations, the tips are somewhat rounded and there is a ricasso. In section the blade is lenticular and the edges have been drawn out.

540	44	7
100	38.5	-

B.M. 54. 7-14. 281

CO. GALWAY RIVER SUCK

No. 192 (Fig. 23). This sword is in an excellent state of preservation, it has been well cleaned and bears a bright brown colour throughout. The handgrip is flangeless, and contains 3 perforations. From underneath the terminal it gradually widens to its junction with the shoulder. The latter contains 2 rivet holes and there is a well formed ricasso. The blade is a pointed oval in section and a ridge runs parallel to the edge. The edges are sharp, that on the dexter side as it approaches the tip curves in slightly, thus giving the point a sort of tongue like effect. The surface is very smooth.

465	42	6.5
101	38	13 ozs.

N.M.I. 1903: 234(CC.7:5)

CO. GALWAY

No. 193 (Fig. 23). Upper portion of handgrip wanting. The surviving stump is flanged and there are the remains of a rivet hole in the fractured end. There are 2 holes in the shoulder and the unperforated depression for 2 more. The blade has been broken across at about midpoint. It is a pointed oval in section and a very slight ridge runs

parallel to the edges.

Not examined, description and illustration based on B.A. Card Catalogue of Bronzes.

387	42	6
-	36	-

Glastonbury Mus. (Braxton Coll. 596)

CO. KERRY AGHADOE

No. 194 (Fig. 23). This is a strong weapon in excellent state of preservation and the surface is free from accretion or patination of any kind. The grip is flanged and contains 3 perforations. There are 5 holes in the shoulder and the depression for a 6th. Underneath there is a ricasso. The blade is elliptical in section and a slight ridge runs parallel to the edges. These have suffered slight damage.

637	50	6
107	44	26¾ ozs.

B.M. (No. Reg. No.)

Bibliography:

Kemble, John M., Horae Ferales (1863), 162 Pl. 9, No.7

CO. KERRY AUGHRIM

No. 195 (Fig. 23). This sword is in two parts - having been broken across at approximately the narrowest part of the blade, but as the fractured ends of these do not fit evenly together it seems that there is a portion of the blade, perhaps 30mm. missing altogether, suggesting that the object was originally approximately 480mm. in length. The fact that both are parts of the same weapon cannot be doubted as each has the same bright brown colour and a surface that is reasonably well smoothened down but, nevertheless, containing tiny pits. The handgrip possesses strong flanges, which continue down the shoulder gradually fading out near

the tip. It contains 2 perforations and the depression for a third. The shoulder contains 2 holes and depressions for 2 more; there is a ricasso. The edges of the blade portion below this have been bluntened. The lower detached portion of the blade is leafshaped. It is flat oval in section and a slight ridge runs parallel to the edge.

450	42	7.5
102	36	-

N.M.I. 1934: 564(C.11:11)

Bibliography:

Report N.M.I., 1933-4, p.14, Pl. 5 No. 5

CO. KERRY VALENTIA ISLAND

No. 196 (Fig. 23). The pommel end of the handgrip is wanting. The latter contains 2 rivet holes and portion of a 3rd is visible at the fractured end. The grip is flangeless but nevertheless, a slight thickening does occur at the edges. The shoulder has a total of 5 rivet perforations and depressions for another that has not been fully bored. The blade is bright brown in colour, its surface is rough and contains small air holes, particularly in the region of the shoulder. In section the blade is flat lenticular, a slight ridge follows the outline of the edges which have suffered some damage.

592	50	6
-	41	-

N.M.I. 1893: 40(CC.7:5)

CO. KERRY

No. 197 (Fig. 23). Practically all the grip of this sword is wanting. All that now survives is a narrow stump that extends out of the base of the blade for a distance of 37mm. The shoulder has been damaged, there are the remains of a rivet hole on the dexter side and underneath the edges

are blunt. At this point extending across the blade is a lunate shaped dark narrow stain which may indicate the top of a scabbard, or the base of a wooden handle which the weapon possessed when Wilde described it in 1861. The blade is flat oval in section and a ridge runs parallel to the edge.

580	-	7
-	40	-

N.M.I. W.73(CC.7:6)

CO. KILDARE "ATHY"

No. 198 (Fig. 23). The blade is elliptical in section and a ridge runs parallel to the edges. These have been damaged. The handgrip and most of the shoulder is wanting but from Wilde's description it appears that the hilt was more perfect when he saw it and contained 7 perforations.

495	-	5
-	34	-

N.M.I. W.7 (CC.7:6)

CO. KILDARE BARROWFORD

No. 199 (Fig. 23). The handgrip and top of the shoulder is wanting. There were 4 rivet holes in the shoulder but the outer casing of 3 of these has been broken off. Underneath the lower perforation on the sinister side there is a small hole containing a rivet stump of bronze. There are shallow grooves at the fractured end perhaps, a deliberate roughening to receive a new handgrip. There is a slight ricasso. The surface of the blade is smooth and it is largely free from patination. It is flat oval in section and a ridge runs parallel to the edges.

533	42	5
-	32	-

N.M.I. 1928: 699(C.1.5)

CO. KILDARE KILKEA

No. 200 (Fig. 23). The handgrip has been cast on at the junction with the shoulder, it is plain and flangeless, but one side a slight thickening of the edges occurs and there is a rivet hole. The shoulder contains 2 perforations and there is a ricasso. The blade is flat oval in section and a slight ridge runs parallel to the edges which have suffered some damage. The blade has been broken across at a point 170mm. from the tip, but has been rejoined possibly in modern times. Just above this a crack runs across the blade.

448	43	7
102	34	14 ozs.

N.M.I. 1945: 305(B.5:14)

Bibliography:

Fitzgerald, Walter, "Antiquities at Kilkea Castle"
J.K.A.S., 3(1899-1902), 196, Fig. 4.

CO. KILDARE

No. 201 (Fig. 23). The handgrip has been cast on at the point of mergence with the shoulder. This is plain and almost parallel sided. It contains a rivet hole and a small terminal. There are 3 perforations in the rounded shoulder and the casting on of the grip may have filled up another. The shoulder tips are rounded and there is a slight ricasso. The surface of the blade is dull bronze in colour and there are faint traces of a green patina. The blade is lenticular in section and a slight ridge runs parallel to the edges.

482	40	7
102	34	456.85 gms.

B.M. 76. 12-14.13

LAOIS KILDRINAGH FORD

No. 202 (Fig. 23). This sword is in a reasonably good state of preservation. The handgrip contains 2 rivet holes and the unperforated depressions for 2 more. The uppermost perforation is of somewhat irregular shape and its edges are gapped. Near the pommel end there is a slight protrusion rising out of the plate, which looks like a cut down rivet held fast, but as it is not visible on the other side it would appear more likely that this was a pin inserted to hold the mould steady during the casting process. There are slight flanges on one side only and these run down the shoulders. At the end the handgrip projects slightly on both sides and there is a shallow cleft in the centre. It was intended to have 6 rivet holes, 3 on each side, in the shoulder but in each case only the bottom example has been fully bored. The blade is ~~of~~ flat oval in section. It possesses ricasso notches and their depth is continued round the blade in the form of a slight raised ridge.

Found at Kildrinagh Ford, with Nos. 203, 204, 205 and other objects resting on the hard gravel bed of the old river with about one foot of loose material over them. Wilde states that when found the rivets were in the handle.

598	51	5
104	40	18½ ozs.

N.M.I. W.5 (CC.7.10)

Bibliography:

Wilde, William. Catalogue, 444-5. Fig. 318, No.5.

CO. LAOIS KILDRINAGH FORD

No. 203 (Fig. 24). The handgrip possesses strong flanges and 3 rivet holes. At the junction with the shoulder the grip has been cast on and the repair has left a spread of metal over the surface. There are 2 rivet perforations in the shoulder and a ricasso underneath. The blade is flat

oval in section and a distinct but flattened ridge nearly 2mm. wide runs parallel to the edges 5mm. in. On each side of the ridge there appears to be a slight groove.

455	42	5.5
105	34	11 ozs.

N.M.I. W.48(CC.7:7)

CO. LAOIS KILDRINAGH FORD

No. 204 (Fig. 24). In good state of preservation. The handgrip has slight but strong flanges and contains 2 perforations. There are 2 rivet holes in the shoulder and a ricasso underneath. In section the blade is flat oval and a ridge runs parallel to the edges about 5mm. in. On each side of this ridge it is slightly grooved.

465	40	6
100	32	12 ozs.

N.M.I. W.49(CC.7:7)

CO. LAOIS KILDRINAGH FORD

No. 205 (Fig. 24). The handgrip possesses very slight flanges, it contains a rivet hole and the depression for another. Two raised ridges run up on each side of these. The grip has been repaired just at the point of mergence from the shoulder, this has left a spread of metal over the surface of the base and has partly filled up one of the perforations and covered the lower portion of the ridges. Perhaps as a means of strengthening the repair the smith who executed the work provided in the mould for a pair of ribs on each side, these now run up the grip to the rivet hole where they almost converge. The shoulder possessed 4 rivet holes, but the spread of metal, consequent to the repair, almost filled up one of these. Underneath there is a ricasso. The blade is elliptical in section. A ridge

runs parallel to the edges which have suffered some damage.

490	43	7
99	36	-

N.M.I. W.50 (CC.7:6)

CO. LAOIS LEA

No. 206 (Fig. 24). This sword is in a good state of preservation. The handgrip was cast on at the junction with the shoulder. The present grip is somewhat different in colour to the remainder of the sword suggesting that an entirely new piece was affixed. From scars on the adjoining surface it would appear that the smith who repaired the weapon first roughened the surface in order to give a greater hold to the new grip. The latter is flangeless, it contains 2 perforations and on each side of these 2 slight ridges occur. There are 2 rivet holes in the shoulder and a well formed ricasso underneath. The blade is of flat oval section. Its surface is reasonably smooth and in places a dark patination occurs. A slight ridge runs parallel to the edges for part of the length of the blade.

483	45	6.5
101	33	14 ozs.

N.M.I. 1930: 529(C.3:18)

Bibliography:

Report N.M.I., 1930-1, p.13, Pl. 2 No.1

LAOIS O'MOORES FOREST

No. 207 (Fig. 24). This sword is in two parts, one (A) contains the hilt and stump of blade underneath; the other (B) the tip end of the blade, but as neither portion of the blade fits it appears that the middle piece is

missing, but it may also be that these are parts of two different swords. Due to a weakness in the original design the hilt broke off at the base of the shoulder. It would seem that a new hilt was cast on. This was not a successful operation as next the handgrip become detached just at the point of mergence from the shoulder. The break here was repaired, not very neatly and air holes in the metal are present. There are slight flanges, and 2 rivet holes in the handgrip. There are also 2 perforations in the shoulder and a ricasso underneath. Below this only a short portion of the blade survives. The unattached fragment is elliptical in section and a ridge runs parallel to the edges. The tip is wanting.

A Length 153mm.
" of hilt 99mm.
Max. width of shoulder 46mm.

B Length 205mm.
Max. width 31mm.
Max. thickness at that point 6mm.

N.M.I. 4: 1916 (CC.7:11)

Possibly LAOIS

No. 208 (Fig. 24). The plain handgrip contains 3 perforations. There are 2 further holes in the shoulder. One of these contains its rivet 14mm. long. The surface of the blade is reasonably smooth and it bears a greyish patination. It shows a central rounded swelling, flanked on each side by a shallow groove and a ridge along the edges. The tip is turned up slightly.

480 44 6
98 38 17 ozs.

N.M.I. 1936: 1647(C.14:15)

CO. LEITRIM nr. BALLINAMORE

No. 209 (Fig. 24). The handgrip is plain and there is a rivet hole present. The shoulder contains 2 perforations and there is a ricasso. The surface of the blade is smooth and is largely free from patination. It is a pointed oval in section and a low ridge runs parallel to the edges.

Found in Willfield Lake.

440	45	6
102	33	8¼ ozs.

N.M.I. 1959: 174(B.19:4)

CO. LEITRIM BALLYDUFF

No. 210 (Fig. 24). In good condition. The handgrip contains slight flanges and there are 2 perforations for rivets. There is a slight roughening of the surface at the lower hole, perhaps it was this that led Wilde to state the grip is 'welded', but this does not appear to be so. There are 2 perforations in the shoulder and the not fully perforated depressions for 2 more. Underneath there is a ricasso. The blade is flat oval in section and in places a slight ridge running parallel to the edges can be discerned.

Found in a rock crevice in the Yellow River near Ballyduff Bridge.

462	40	6
99	31	14 ozs.

N.M.I. W.52(CC.7:7)

CO. LEITRIM CARRICK-ON-SHANNON

No. 211 (Fig. 24). This sword is in a good state of preservation, its surface is smooth and has a brownish colour throughout. The handgrip is plain, and it contains 2 rivet holes. There are 2 perforations in the shoulder and

a ricasso underneath. The blade is flat oval in section and a slight ridge runs parallel to the edges which are quite sharp.

515	42	7
103	37	17½ ozs.

N.M.I. W.19(CC.7:6)

CO. LEITRIM CARRICK-ON-SHANNON

No. 212 (Fig. 24). In an excellent state of preservation. The handgrip possesses low, but broad flanges, which also extend outwards slightly, there are 2 rivet holes present and 2 more at the junction between grip and shoulder. The latter contains 2 perforations and there is a ricasso. The blade has been well polished and it is bright brown in colour. A ridge runs parallel to the edges which are quite sharp. Its section can be described as a flattened oval.

515	46	7.5
—	34	17 ozs.

N.M.I. 1933: 248(C.8:23)

Bibliography:

Report N.M.I., 1932-3 p.15, Pl. 3, No. 2.

CO. LEITRIM CLOONCUMBER

No. 213 (Fig. 24). Both the pommel end of the hilt and the tip of the blade are wanting. The surviving portion of the handgrip narrows from the fractured end to the shoulder junction. It has slight flanges and the remains of a rivet hole is visible at the end. A swelling out of the base of the blade continues up but bifurcates at the approach to the rivet hole. The shoulder contains 4 perforations. Underneath there is a slight indentation in the sides giving a ricasso effect. The blade tends to assume a slight leafshaped form, but this is not very pronounced. It is elliptical in section, but otherwise is

plain and featureless.

Found two feet deep in hard clay and gravel during drainage operation in the Black River

390	36	6.5
-	24	-

N.M.I. W.29(CC.7:7)

CO. LEITRIM DERRINTOBER

No. 214 (Fig. 24). In good state of preservation. The handgrip possesses stout flanges that continue down the shoulders for a short distance, they also spread out slightly. There are 3 small rivet holes in the centre of the grip, and 3 more arranged in a triangular shape in the terminal, but whether these are original or not it is difficult to say. A swelling out of the blade continues up to the base of the grip, it then bifurcates and extends up the grip, on each side of the perforations, in the form of 2 raised ridges. There are 2 rivet holes in the shoulder and the unperforated depressions for 2 more. Underneath there is a distinct ricasso. The surface of the blade is reasonably smooth. It is a pointed oval in section and a slight ridge runs parallel to the edges.

545	50	7
109	39	21 ozs.

N.M.I. 1937: 6(C.21:1)

CO. LEITRIM ROSHARRY

No. 215 (Fig. 24). This is a perfect weapon and is in an excellent state of preservation. The handgrip has extremely thin and slight flanges and it terminates in a large hollowed projection. There are 2 rivet holes present and a low ridge runs on each side of these. The shoulder contains 2 perforations, but a circular roughening of the

surface indicates that it was the intention of the artificer to have 4 more holes. There is a ricasso and on the side of the grip the join of the mould is clearly visible. The blade is of pointed oval section, its surface is smooth but the edges are not particularly sharp. It shows a flattened midrib flanked by a broad and shallow channel and a ridge running parallel to the edge.

644	52	8
104	47	31 ozs.

N.M.I. L.1936:1(C.19:17/18)

Bibliography:

Catalogue of the Knowles Collection (1924), 41-2, Pl.4

CO. LEITRIM

No. 216 (Fig. 24). There are 2 perforations, each containing a rivet averaging 17m. in length in the grip. In the shoulder there are two further holes and a ricasso underneath. The surface of the blade is smooth and there is some dark brown patina. The centre is occupied by a rounded swelling, flanked on each side by a groove and a ridge along the edges. These have suffered some damage. Not examined, illustration and description based on B.A. Card Catalogue of Bronzes.

564	49	7
105	36	601.83 gms.

Private - W.C. Wells, Esq.,
Sudbury, Harrow, Middlesex.

CO. LIMERICK KNOCKLONG

No. 217 (Fig. 24). Only a stump of the handgrip survives. This has low flanges and the remains of a rivet hole. There are 2 perforations in shoulder and very slight ricasso underneath. The surface of the blade is rough. It shows

a central rounded swelling flanked on each side by a broad shallow groove and a ridge along the edges.

402	46	7
-	35	-

P.R.Oxon. 2628: 1504

CO. LIMERICK LOUGH GUR

No. 218 (Fig. 25). The grip thickens slightly towards the edges and there are two rivet holes present. The shoulder contains 4 perforations each of which retains a rivet averaging 10mm. long by 2.5mm. in diameter. Over most of the surface of the blade there is a greyish patination, but large portions of this have flaked off revealing a rougher surface underneath. Near the tip the blade is bent, it has been broken at 2 points but these have been joined by means of leddsolder. In section the blade is elliptical and in places a slight ridge can be discerned running parallel to the edges. There is a ricasso.

430	47	9
96	32	334.75 gms.

Salisbury Mus. B.595

CO. LIMERICK SHANAGOLDEN

No. 219 (Fig. 25). Most of the handgrip and lower portion of the blade is wanting. The surviving stump of the grip possesses low, but broad, flanges and at the fractured end there is a slight depression which may be the remains of a rivet hole. On both sides the mould joint is clearly visible. The shoulder contains 2 perforations and there is a ricasso. It would appear that the blade was originally leafshaped in plan. It is elliptical in section and a ridge runs parallel to the edges which have been

damaged.

Found in a marsh or sandpit with other bronzes but not necessarily a hoard.

210	41	6
-	30	-

N.M.I. 1929: 1715(C.8:21)

CO. LIMERICK (? IN SHANNON)

No. 220 (Fig. 25). The handgrip has been broken at the lower rivet hole, it has slight flanges which continue down the shoulder for a short distance. There are 3 rivet holes placed in a central position in the grip and another in the terminal. A central swelling out of the base of the blade continues up to the bottom perforation, it then bifurcates and runs up on each side of the holes in the form of 2 raised ridges. The shoulders contain 4 rivet holes, the lowermost one on the sinister side has a rivet, that has been cut obliquely at both ends, in position, while on the other shoulder the opposite example contains a stump. There is a ricasso. The blade is of flat oval section. A slight ridge follows its outline and from there, in places, the edges have been drawn out.

540	50	5
108	39	17 ozs.

N.M.I. W. 13(CC.7:6)

CO. LIMERICK

No. 221 (Fig. 25). This sword possesses a very narrow handgrip, only having a maximum width of 17mm. which it attains at about mid-point. Here it has been broken off, but was again re-joined, or more likely an entirely new piece was cast on. This portion is slightly thicker than the old and ends in a squarish finial. The grip contains

2 perforations. The shoulder has 2 rivet holes, but the outer casing of the example on the dexter side has been broken off. Above these there are the depressions for 2 more perforations. Running across the shoulder from tip to tip is a straight mark on the surface which may indicate the top of a scabbard of the base of the handle. The blade is flat oval in section and a very shallow ridge runs parallel to the edges, these have been drawn out.

496	43	7.5
105	32	17 ozs.

N.M.I. W.71(CC.7:6)

CO. LONGFORD nr. BALLYMAHON

No. 222 (Fig. 25). This sword has suffered considerable damage. The edges are gapped, the tip is slightly bent, and the handgrip has been cast on at the point of mergence from the shoulder. The present grip is plain and it contains 2 perforations. The shoulders tend to assume a rounded form, they contain 2 rivet holes and the unperforated depression for a 3rd on the sinister side. There is a ricasso. The blade is flat oval in section and a ridge runs parallel to the cdges. One surface is quite smooth, but the other is rippled, this may be the result of differential cooling.

520	38	8
99	37	17½ ozs.

N.M.I. 1937: 2574(C.21:1)

CO. LONGFORD KILLASHEE

No. 223 (Fig. 25). In good state of preservation. The handgrip is flanged. There are 2 rivet holes present and between these the unperforated depression for a 3rd. The shoulder has slight "beakes," it contains 2 perforations and there is a well formed ricasso underneath. The blade has

a rounded central swelling, on each side of this there is a shallow groove and a ridge towards the edges which are sharp.

516	47	8
103	38	20 ozs.

B.M./W.G. 1231

MEATH/LOUTH DROGHEDA

No. 224 (Fig. 25). Only shoulder and portion of blade survives. It is in a bad state of preservation and over parts of the surface there is an accretion of rust. The edges have been badly damaged and towards the fractured end the blade has been bent slightly. The shoulder contains 4 perforations.

185	46	-
-	-	-

B.M. 55, 12-20, 20

CO. MAYO BALLINA

No. 225 (Fig. 25). Lower part of almost parallel sided blade. It is elliptical in section and the edges are slightly indented. Over the surface there is a smooth black patina with ochre patches.

293	-	8
-	28	-

P.R. Farnham

CO. MAYO BALLINA

No. 226 (Fig. 25). In good condition. The handgrip contains 2 perforations and there is a thickening towards the edges. There are 2 rivet holes in the shoulder and a ricasso underneath. The surface of the blade is smooth,

it is of flat lens section and the edges are drawn out.

557	45	4
103	35	18 ozs.

P.R. Farnham

CO. MAYO BALLINA

No. 227 (Fig. 25). Small sword with plain handgrip containing 4 perforations. The shoulder contains 4 further rivet holes and there is a ricasso. A line across the shoulder indicates the base of the haft plates. The surface of the blade is smooth and almost free from patination. It is flat oval in section and a slight ridge runs parallel to the edges.

459	42	5
103	27	13½ ozs.

P.R. Farnham

CO. MAYO BALLYARRIS

No. 228 (Fig. 25). Slight flanges on handgrip and 1 perforation. At about mid-point, and extending in each direction, there is a spread of metal that may indicate a cast on. The shoulder contains 6 perforations but the upper pair have been partially filled with the molten metal. The surface of the blade is smooth, it is dark brown in colour with golden bronze showing in places. In section it is elliptical and a ridge runs parallel to the edges.

An attached label states that this sword was found on 17th June? 1890 in the bog of Annies about 16 feet below the surface. It had a wooden handle with knobs and hand-guard apparently of metal. This crumbled away when touched. Whereabouts unknown, description and illustration based on B.A. Card Catalogue of Bronzes.

621	48.5	8
102	36	-

~~Longth 621~~
~~" of hilt~~
~~Max. width of shoulder~~
~~48.5m.~~
~~" " of blade 36m.~~

Formerly inthe possession of Sir Lucas White-King late of Roebuck Hall, Co. Dublin. Sold by auction at Sothebys 9-11-1921. Lot 151

CO. MAYO CLOONCONNACK

No. 229 (Fig. 25). The handgrip is plain, there are 2 rivet holes present and between these a depression for a third. There are two small perforations in the terminal, but whether these are original or not it is difficult to say. The shoulder contains a total of 6 rivet holes, it is rounded slightly at the tips and underneath there is a scarcely distinguishable ricasso or perhaps more specifically a bluntening of the edges. The blade is of flat oval section, its surface is reasonably smooth and it is covered with a blackish patination. The edges have suffered considerable damage and are now quite blunt. A slight ridge follows the outline of the blade.

628	49	6
104	39	23 ozs.

N.M.I. 1944: 259(B.1:4)

CO. MAYO HOG ISLAND

No. 230 (Fig. 25). This short sword is in a good state of preservation. The handgrip is flangeless, but a gradual and slight thickening of the web, from centre to edge, does occur. The grip contains 3 perforations; in the shoulder there are 4, arranged in pairs on each side, and the unperforated depression for 2 more. There is a slight ricasso. The blade is flat oval in section. Portion of the surface bears a slight corrosion and it shows on each

side of the central swelling a very slight channel and a barely distinguishable ridge towards the edge.

Found in the wall of an old castle on Hog Island, Lough Mask.

468	43	6
100	34	12 ozs.

N.M.I. 1883: 37(CC.7:7)

CO. MAYO KILLALA

No. 231 (Fig. 25). In good condition. The handgrip contains slight flanges or more specifically a thickening of the edges which continue down the shoulders particularly on the dexter side, there are 3 perforations and a further 4 in the shoulder. There is a ricasso. The blade is of flat lens section and the surface has not been smoothened down very effectively. A slight ridge follows the outline of the edges, these have been drawn out towards the point.

473	45	6
105	38	14 ozs.

N.M.I. W.51(CC.7:7)

CO. MAYO NEWPORT

No. 232 (Fig. 25). Pl. 11 No. 4. For description see p. 405.

CO. MAYO SWINFORD/FOXFORD DISTRICT

No. 233 (Fig. 25). The surface of the grip presents a somewhat unfinished appearance. It contains low flanges, there are 2 rivet holes present and on each side of these a ridge runs up the length of the grip. The shoulders have rounded tips and 2 rivet holes together with the unperforated depressions for 2 more. There is a ricasso. The surface of the blade has been reasonably well smoothened

down and shows a rounded flattened midrib the sides of which have been drawn out to form the edges. The extreme tip is wanting.

457	44	7
99	31	15 ozs.

N.M.I. 15-6-1939

CO. MAYO WESTPORT

No. 234 (Fig. 25). The pommel end of the handgrip is wanting. What survives is flanged and these extend down the shoulders. There is a rivet hole present and the remains of another at the fractured end. The shoulder contains 4 perforations and there is a ricasso. The blade is golden bronze in colour. Its surface shows a narrow rounded central swelling and a ridge running parallel to the edges. The latter have been dented in three or four places. Found in a bog in 1854.

Not examined, illustration and description based on B.A. Card Catalogue of Bronzes.

603	48	7
-	43	-

Mus. and Art Gallery Salford.

CO. MAYO

No. 235 (Fig. 26). Most of the handgrip is wanting. What survives has slight flanges and there are the remains of a rivet hole in the fracture. The tips of the shoulders have been broken off. They appear to have possessed a total of 4 perforations. The blade is almost parallel sided. It is plain and featureless and the edges are blunt. It has been broken at 2 points, but is now joined by lead solder.

370	-	6
-	30	-

N.M.I. 1959: 624(B.20.3)

CO. MEATH ADDANSTOWN

No. 236 (Fig. 26). Lower portion of blade. The edges are bevelled and there is a rounded central thickening. The fractured surface is rather jagged and the break may be an ancient one (perhaps at a repair) as is suggested by the fact that the colour is not fresh but uniformly patinated with the rest of the blade. Slight traces of verdigris are present, and the cutting edges are blunt and battered in places.

Found in gravel 12" under the bed of a stream, during drainage operations.

320	-	7
-	37	-

N.M.I. P.1951 : 121(B.10:3)

CO. MEATH BALLYHOE

No. 237 (Fig. 26). In a good state of preservation. The handgrip is flanged, there are 3 perforations present and on each side of these a slight ridge occurs. The shoulder contains 4 perforations and there is a ricasso. The surface of the blade is pitted giving a rough and uneven effect. In section the blade pertains to a flat oval and a ridge runs parallel to the edge.

495	48	6.5
100	37	15 ozs.

N.M.I. 1931 : 307(C.4:21)

Bibliography:

Report N.M.I., 1930-1, p.13, Pl. 3, No. 4.

CO. MEATH TARA

No. 238 (Fig. 26). Damaged, the handgrip is wanting, the blade has been broken at two places and the edges are very blunt. The surface is covered with a thick green

coloured patination. The blade assumes a somewhat pointed oval section. There are the remains of a rivet hole in the shoulder and perhaps vestiges of a ricasso underneath.

373	40	5
-	33	-

Swan Collection

CO. MONAGHAN — CARGAGHOGE

No. 239 (Fig. 26). Fragment of blade of approximately oval section. The edges are bevelled on the length of both sides but have suffered much damage. The surface bears a thick patination.

105	-	7
-	-	-

N.M.I. 1956: 287(B.4:4)

CO. MONAGHAN — LISDUFF

No. 240 (Fig. 26). In good state of preservation. The surface is smooth and free from patination. The handgrip possesses strong and distinct flanges that continue down the shoulder. There are 2 rivet holes present and 2 more in the shoulder that has a ricasso underneath. The blade is a pointed oval in section and the edges have been neatly drawn out.

Found in 1866 in Tussy Bog, Lisduff, 14 feet below the surface.

560	56	5
101	45	15½ ozs.

N.M.I. 1959: 137(B.19:4)

CO. OFFALY — BALLYKILLEN

No. 241 (Fig. 26). The handgrip possesses strong and distinct flanges. There is a thin oval piece of wood with the convex face decorated with 7 raised ridges attached to

the terminal. The Register states that this is the boss of the hilt-pommel which was found with the object, but this is rather doubtful. There are 3 rivet holes in the shoulder and 6 in the grip. A curved line running across from tip to tip indicates the limit of the haft plate. Underneath there is a ricasso. The blade has a rounded central swelling flanked on each side by a groove and a ridge along the edges.

458	50	7
98	35	17 ozs.

U.M.A. Cantab. M.C.99.186

CO. OFFALY — COOLDARRAGH

No. 242A(Fig. 26). Two fragments of a sword blade. The lower portion is 122mm. long and widens from 22m. to 30m. where it is 6mm. in maximum thickness. Its surface is slightly rough and the edges have been drawn out.

No. 242B (Fig. 26). The upper portion is 140mm. long. At the fracture it is elliptical, in section it is 31mm. wide and 8mm. thick. The surface is smooth, and the edges have been drawn out, these have suffered some damage.

N.M.I. 1933: 760-1 (C.8:26)

CO. OFFALY — DOWRIS (? BIRR)

No. 243 (Fig. 26). Fig. 51 No. 4. For description see p. 330

CO. OFFALY — DOWRIS

No. 244 (Fig. 26). Fig. 51 No. 1. For description see p. 329

CO. OFFALY — DOWRIS

No. 245 (Fig. 26). Fig. 51, No. 5. For description see p. 331

CO. OFFALY DOWRIS

No. 246 (Fig. 26). Fig. 51, No. 2. For description see p. 330

CO. OFFALY DOWRIS

No. 247 (Fig. 26). Fig. 51, No. 3. For description see p. 330

CO. OFFALY BALLYLIN

No. 248 (Fig. 26). Portion of sword blade that narrows from a maximum width of 34mm. to 28mm. Its surface is not particularly smooth and the edges are blunt. It has a greenish patina throughout and is a pointed oval in section. At the wide end it is bent slightly.

Present length. 270mm. N.M.I. 1935: 168 (C.13:7)

nr. ARDCARNE CHURCH CO. ROSCOMMON

No. 249 (Fig. 26). Perfect, the handgrip is flangeless, but a slight thickening at one edge does occur. There is a rivet perforation present. The shoulder contains 4 rivet holes, these are set in pairs on each side quite close to each other. There is a ricasso. The blade is elliptical in section, but with the part next the edge drawn out.

This sword is a bright golden colour. Most of the surface is rough, but it is difficult to say if this is the result of an unsatisfactory smoothening done by the maker or of subsequent corrosion.

545	45	6
102	32	15 ozs.

N.M.I. W. 58 (CC.7:6)

CO. ROSCOMMON nr. BOYLE

No. 250 (Fig. 26). The handgrip has been cast on. The present grip is narrow, it thickens slightly towards the edges, and there are 3 perforations present. The upper of these is in the shape of the figure eight and is 18m. long. The shoulder contains 2 holes and there is a ricasso. There are tiny pits and the remains of a very slight black patina over the surface of the blade. It shows a rounded central swelling flanked on each side by a shallow groove and a ridge along the edges.
Not examined, illustration and description based on B.A. Card Catalogue of Bronzes.

463.5	44	7
102	35.5	-

Property of M. Feuardent
Sold at Sothebys 14.12.1925
lot 270

Bibliography:

Catalogue of the Day Collection (1913) 42, Pl. 14, lot 302

CO. ROSCOMMON CLOONADDRA

No. 251 (Fig. 27). This sword is in perfect condition. The handgrip has slight flanges and one rivet hole. There are 2 large perforations, with somewhat jagged edges, in the shoulder and underneath, a ricasso. The surface of the blade is reasonably smooth and shows a rounded midrib flanked by a broad and shallow channel and a slight ridge towards the edge.

440	45	8
100	37	16 ozs.

N.M.I. 1931: 319(C.4:21)

Bibliography:

Report N.M.I., 1931-2, p.13, Pl.2, No.4

CO. ROSCOMMON KILBRIDE SHOAL

No. 252 (Fig. 27). The grip is flanged, it contains 3 rivet holes and on each side of these two parallel ridges run down its length. The shoulders are straight-sided and each wing contains 2 perforations and a depression for another that has not been bored. Underneath the edge is bluntened giving a ricasso effect. The blade is of flat oval section. The edges are drawn out and portions of the surface bears a deposit of iron oxide. At the narrowest part the blade has been broken across.

488	50	6
101	34	14 ozs.

N.M.I. W.89 (CC.7:11)

CO. ROSCOMMON KNOCKADOO

No. 253 (Fig. 27). Pl. 7, No.2.

No. 254 (Fig. 27). Pl. 7, No.1.

For description of both see p. 395-6

CO. ROSCOMMON LOUGH GARA (INCH ISLAND)

No. 255 (Fig. 27). In good state of preservation. The handgrip is flanged, there are 2 rivet holes present and these are flanked on each side by a ridge. The shoulder contains 2 holes and there is a ricasso. The surface of the blade is reasonably smooth. It is flat oval in section and a ridge runs parallel to the edges.

525	42	6.5
99	36	15 ozs.

N.M.I. E.20: 581(Exhibited)

CO. ROSCOMMON NADNAVEIGH

No. 256 (Fig. 27). In good state of preservation. The handgrip is flanged, there are 2 rivet holes present and a raised ridge runs on each side of these. The shoulder contains 2 perforations, which have bevelled edges. Underneath the sides are cut away giving a ricasso like effect. The blade has received some polishing. It is flat oval in section and the edges have been drawn out.

593	48	6
105	37	18½ ozs.

N.M.I. 1933: 6(C.7:2)

CO. SLIGO FORTLAND

No. 257 (Fig. 27). Only a stump of the handgrip survives. The shoulder contains 4 perforations and there is a ricasso. The blade shows a rounded central swelling flanked on each side by a shallow groove and a ridge along the edges.

Not examined, illustration and description based on B.A. Card Catalogue of Bronzes.

503	50	8
-	40	-

Mus. of Phil. & Literary Soc. Leeds

CO. SLIGO RATHCARRICK

No. 258 (Fig. 27). The handgrip has been cast on at the junction with the shoulder. This is plain and narrow, it contains 2 perforations and the pommel end is wanting. There are 2 holes in the shoulder. In section the blade is a pointed oval, the extreme tip is wanting.

588	46	5
-	37	-

N.M.I. 1959: 182(B.19:5)

CO. TIPPERARY CLONMEL

No. 259 (Fig. 27). The grip possesses low flanges, there are 2 rivet holes present and on each side a ridge runs parallel to the flanges. There are 4 perforations in the shoulder and there is evidence for a very slight ricasso underneath. The surface of the blade is rough and it is dark in colour. The edges are blunt and the extreme tip is wanting. In section the blade is elliptical.

455	47	7
99	35	-

B.M. OA. 125

CO. TIPPERARY CLONMEL

No. 260 (Fig. 27). Only a stump of the handgrip survives. This is flanged and these continue down the shoulders fading out near the tip. The shoulders contain 4 rivet holes and there is a well formed ricasso. The blade is bright brown in colour, it is reasonably smooth and a slight ridge runs parallel to the edge. In section it pertains to a flattened oval.

402	46	7
-	38	-

N.M.I. 1934: 48(C.5:23)

CO. TIPPERARY LATTERA

No. 261 (Fig. 27). Pl. 9, No. 3.

No. 262 (Fig. 27). Pl. 9, No. 1.

No. 263 (Fig. 27). Pl. 9, No. 2.

For description see p. 401-2

CO. TIPPERARY DERRYHOGAN

No. 264 (Fig. 27). Pl. 6, No. 1

No. 265 (Fig. 27). Pl. 6, No. 2

For descriptions see p. 322

CO. TYRONE ALTENMULLEN

No. 266 (Fig. 28). In good state of preservation and has smooth well treated surface. Handgrip is plain and possesses 3 perforations. The shoulder contains 4 holes and depressions for 2 more. The blade is elliptical in section and a ridge runs parallel to the edges.

625	48	6
105	40	21¼ ozs.

B.M. W.G. 1229

CO. TYRONE CARNTEEL

No. 267 (Fig. 28). The upper half of the handgrip may have been cast on. The grip contains 2 large perforations and there are 2 further holes in the shoulder and the depressions for 2 more. A curved line running across the shoulder indicates the base of the hilt plates. There is a ricasso underneath. The surface of the blade shows a clean golden bronze with a few green patches and dark stains. It is lenticular in section and a low ridge runs parallel to the edges which have been drawn out from that point.

626	54	6
108	24	723 gms.

B.M. W.G. 1228

CO. TYRONE COOKSTOWN

No. 268 (Fig. 28). From under terminal, the grip widens to point of mergence with the shoulder. There is a rivet hole present and it was intended to have another. On each side of these a ridge that joins up at both ends occurs. The shoulder contains 2 perforations. The blade is plain and featureless and is a pointed oval in section.

447	43	5
101	27	11¼ ozs.

B.M. W.G. 1234

CO. TYRONE nr. EDERNAGH

No. 269 (Fig. 28). Handgrip plain with pommel end wanting. There is a hole present and the remains of another at the fractured end. The shoulder contains 2 perforations and the depressions for 4 more. There is a ricasso. The blade is elliptical in section and a slight ridge runs parallel to the edges. Thinking that the object was gold the finder broke the blade across about 315m. from the tip. This break has been repaired by lead solder. In the neighbourhood of the repair the edges have been damaged. The surface is smooth but there are some tiny air holes present.

Found in a bog 2 miles south east of Edernagh.

562	50	7
-	41	-

B.M. 43. 12-26. 1

CO. TYRONE FURNISH

No. 270 (Fig. 28). The handgrip possesses scarcely noticable flanges that extend down the shoulder. There are 3 perforations present. The shoulder contains 4 rivet holes, 2 on each side and a ricasso. In places the

surface of the blade is rough. It is flat oval in section and a ridge runs parallel to the edges.

Stated to have been found on a plank floor of a crannog.

622	50	6
112	51	28½ ozs.

M.M.B. 852. 1926

CO. TYRONE RELAGH

No. 271 (Fig. 28). This is a very fine specimen and is in an excellent state of preservation. On one face the handgrip possesses very low but broad flanges which also projects outwards slightly. There are 2 perforations present and the terminal is hollowed. The straight-sided shoulder contains 4 rivet holes and a ricasso. The blade is of flat oval section and a low ridge runs parallel to the edges. The latter are quite sharp and the surface has been well smoothened down.

619	47	8
105	43	28 ozs.

N.M.I. 6.2.1938 A(C.28:9)

CO. TYRONE RELAGH

No. 272 (Fig. 28). This is a very magnificent specimen of bronze sword and is in a complete and excellent state of preservation. Apart from a very slight thickening of the edges the handgrip is plain. It contains 3 holes, the edges of which are bevelled. The middle example has its rivet, 4mm. in diameter and 17mm. long, in position. The shoulder contains 4 holes, also with bevelled edges and the unperforated depressions for 2 more. The holes on the right side still contain their rivets. These have been cut off obliquely at both ends; they are 4mm. in diameter and the upper example is 15mm. long, the lower

12.5mm. There is a ricasso. The blade is of flat oval section. After having been taken out of the mould it was well treated and is now quite smooth. The surface shows a low flat midrib flanked by a shallow channel and a distinct ridge towards the edges. The latter are sharp and are drawn out towards the point.

617	52	7
108	46	29 ozs.

N.M.I. 16.2.1938 (B) (C.28:9)

CO. TYRONE — RELAGH

No. 273 (Fig. 28). Very fine specimen and in an excellent state of preservation. The handgrip is plain, it contains 2 large perforations with bevelled edges. The shoulder has 4 rivet holes and 2 unperforated depressions. There is a ricasso. The surface of the blade has been well smoothened down. It is flat oval in section and a slight ridge runs parallel to the edges which are quite sharp. These have been drawn out in places especially at the narrowest part and at the tip.

624	54	8.5
108	45	31 ozs.

N.M.I. 16.2.1938 C (C.28:9)

CO. WATERFORD — KNOCKMOAN

No. 274 (Fig. 28). Pl. 8 No. 7. For description see p. 400

CO. WESTMEATH — BALLYHEALY or BALLINURE

No. 275 (Fig. 28). This sword is in a good state of preservation. The handgrip has strong flanges that gradually emerge out of the web and there are two perforations present. The shoulder contains 2 rivet holes and there is a ricasso. The blade has been well smoothened down and the edges are sharp, it has a blackish patina and is elliptical in section

with a ridge running parallel to the edges.

455	44	7
99	35	15 ozs.

N.M.I. 25.11.1938 (C.13:21)

CO.WESTMEATH BISHOPSTOWN

No. 276 (Fig. 28). Only a pointed stump of the handgrip survives and the tips of the shoulders have also been broken off. The shoulders may have contained a total of 6 rivet holes, 3 on each side, but only traces of the upper pair now survive. The blade is lenticular in section. An accretion of verdigris covers part of its surface.

Stated to have been found in a rath at Bishopstown in 1843.

414	47	7
-	33	-

M.M.B. 472. 1937

CO. WESTMEATH BRACKLIN

No. 277 (Fig. 28). Lower part of blade bearing a dark patination, but on one side most of this has been scraped off rather crudely. The edges were neatly drawn out but have been damaged.

356	-	5
-	38	-

N.M.I. 1959: 31(B.17:4)

CO. WESTMEATH CARRICKOBREEN

No. 278 (Fig. 28). This sword has suffered considerable damage. The blade is broken across at the narrowest part and the tips of the shoulders are now bent in. The hand-grip has also been broken across, a new portion was cast on but the result was unsatisfactory. The surviving

portion of the old grip has slight flanges and the smith who repaired the weapon notched these in order to give a hold to the new piece. This portion of the work may have been sound enough, but when the craftsman ran in the metal, he probably allowed it to cool too much, or did not construct his mould properly resulting in an imperfect joint which has allowed both pieces to come from each other. The new grip was flat and featureless, its pommel end is now wanting. There are 2 unperforated depressions for rivets present. In the shoulders there are 2 rivet holes, but the lower example on each side have their outer casings ~~far~~ torn away. The blade is narrow, its surface has received some polishing, but numerous tiny pits are still present. In section the blade is flat oval and the edges have been drawn out slightly. When found the blade was bent but it broke on being straightened out by the finder.

434 - 6

\- 25 -

N.M.I. P.1948: 85(B.5:15)

CO. WESTMEATH CRADDERSTOWN

No. 279 (Fig. 28). Thehandgrip has strong and pronounced flanges which continue down the shoulder, and there are 2 rivet holes present. The shoulder contains 3 perforations and the unperforated depression for a 4th. One of the holes retains its rivet. There is a ricasso. The blade has suffered considerable damage. The tip and the adjoining part of the blade is wanting. The surviving portion is broken at two places, at the narrowest part and again where it approaches its maximum thickness. The blade is elliptical in section.

492 54 6

105 34 -

N.M.I. R.2134(CC.7:11)

CO. WESTMEATH

LOUGH ENNEL
nr. LADIES TOWN

No. 280 (Fig. 28). This short sword is in a good state of preservation. The handgrip is flanged and these slope up gradually from the web. There are 2 perforations present. The shoulder swelling at the lower hole and then extends in the form of raised ridges up the grip on each side of the perforations, but converges again at the base of the terminal. The shoulder contains 2 rivet holes and there is a very short and slight ricasso. The blade is flat oval in section. The surface is smooth and shows a gentle swelling in the centre flanked by a very shallow groove and a slight bevel towards the edge.

415	40	5
92	33	12 ozs.

N.M.I. 1881: 181(CC.7:7)

? CO. WESTMEATH

No. 281 (Fig. 29). This sword is broken in three parts but is otherwise in a fairly good condition. The handgrip contains 3 rivet holes and slight flanges, not much more than 1mm. in height, these continue down along the shoulders but fade out towards the tip. The web between the flanges is very thin, about 2mm. but from just past the uppermost rivet hole it thickens abruptly and reaches a maximum thickness of 6mm. The hilt may have possessed a pommel spur. In the shoulder there are 4 rivet holes, averaging 4mm. in diameter, and 2 further examples which are not fully perforated. In shape the blade assumes a marked leafshaped outline and flat oval in section. The upper portion has a somewhat rough surface and the edges are slightly serrated, but towards the point, it becomes sharp and a slight ridge runs parallel to the edges which appear to be ground.

468	48	7
105	40	-

N.M.I. R.2303(CC.7:9)

? CO. WESTMEATH

No. 282 (Fig. 29). This swors has suffered considerable damage and at present it is in two parts. The pommel end of the handgrip is missing. The surviving portion is flanged and these continue down the sides of the shoulders. It contains a rivet hole and portion of another is present in the fractured end. There are 6 rivet holes, each averaging 4mm. in diameter, in the shoulder. From the bottom perforation the shoulder swelling appears to have bifurcated and to have carried on up the handgrip in two very slight ridges. The blade has been broken in five different places and in section assumes the form of a central swelling of flattened oval shape. Towards the edges this is drawn out.

576	46	7
-	39	-

N.M.I. R.2222 (CC.7:11)

IRELAND

No. 283 (Fig. 29). The handgrip has slight flanges and one of the terminal wings has now been damaged. There are 2 rivet holes in the centre and on each side of these two raised ridges run up the length of the grip. The shoulder has two perforations but the outer casing of that on the sinister side has been broken off. There is a ricasso. At its narrowest part the blade has been broken at two points. These have been rejoined, apparently in modern times, and the adjoining surface is quite dark. It is difficult to say if the lower portion is at all part of the original, this is flat oval in section and a slight ridge runs parallel to the edges which have suffered some damage. The tip is wanting.

538	45	5
99	39	536.5 gms.

Alnwick Castle No. 389.

IRELAND

No. 284 (Fig. 29). Only a stump of the handgrip survives. This is 19mm. in width at the fractured end where the remains of a rivet hole can be discerned. The shoulder contains a total of 6 perforations, 3 on each side and there is a slight ricasso. The centre is occupied by a swelling which gives a midrib effect. This gradually narrows towards the fracture. The blade has been broken across at about midpoint but has been repaired obviously in modern times. The surface is dark in colour and shows a rounded midrib flanked by a very shallow groove and a ridge towards the edges which are drawn out from that point. It is flat oval in section.

467	45	7
-	34	531.25 gms.

Alnwick Castle No.390

IRELAND

No. 285 (Fig. 29). The handgrip has been broken off at the junction with the shoulder, but a new grip was cast on not in a very neat manner. This is flangeless, it contains 2 perforations and the pommel end is wanting. The shoulder is slightly rounded at the tips. It has 2 rivet holes. The blade is almost parallel sided. It is elliptical in section and there is slight evidence for a ridge along the edges; the tip has been broken off. A short distance below the shoulder the blade was broken but has been repaired.

450	41	5
-	24	382.5 gms.

Alnwick Castle No.392

IRELAND

No. 286 (Fig. 29). The handgrip has slight flanges, it contains 2 perforations (the upper has a stump of a rivet in position) and between these there is a depression for a 3rd. The shoulder contains 2 rivet holes and the unperforated depressions for 4 more. The surface of the blade is rough. It has been broken across at two points but subsequently remended. The tip has also been broken off and is now missing altogether. In section the blade pertains to a pointed oval. It would appear that a ridge ran parallel to the edges, but the latter are now damaged and in places filed down.

495	43	7.5
	38	483.6 gms.

Alnwick Castle No.393

IRELAND

No. 287 (Fig. 29). In good state of preservation. The handgrip possesses slight flanges that extend down the shoulder and there are 2 perforations in the centre. The shoulder contains 2 rivet holes and there is a ricasso. The surface of the blade is smooth and it shows a rounded midrib flanked by a ridge that is drawn out to form the edges.

497	47	8
104	40	22 ozs.

Pub. Lib. Armagh

IRELAND

No. 288 (Fig. 29). In good state of preservation and free from patination or accretion of any kind. The handgrip has very slight flanges, the pommel end was broken off but has been cast on just above the upper perforation. There are 2 rivet holes in the centre and the unperforated depression for a 3rd. The shoulders contain a total of

4 perforations and a ricasso. The surface of the blade has been well smoothened down, and shows a rounded midrib that is flanked on each side by a ridge. The edges are bevelled and are quite sharp.

448	47	8
100	37	16 ozs.

Pub. Lib. Armagh

IRELAND

No. 289 (Fig. 29). The handgrip has been broken off at the junction with the shoulder and what appears to have been an entirely new grip was cast on, but at the lower perforation this again broke which resulted in the casting on of the pommel end at that point. The "composite" grip contains 2 rivet holes, it is flangeless and its surface is quite rough. One of the terminal wings has been broken off. The shoulder contains 2 perforations. The surface of the blade is quite smooth. In places there is slight evidence for bevelling of the edges. In section the blade is flat oval and it appears that the extreme tip is wanting.

595	49	7
108	37	22 ozs.

Pub. Lib. Armagh

IRELAND

No. 290 (Fig. 29). A large part of the blade of this sword is wanting. The surviving portion is flat oval in section and the edges are bevelled. There are patches of verdigris on the surface but it is, nevertheless, reasonably smooth. The handgrip was broken off at the point of mergence from the shoulder, but a new piece was cast on. This is plain and flangeless and its surface is somewhat rough. There are 2 rivet holes present and the unperforated depression for a 3rd. The shoulder

contains 2 perforations and it is possible that the casting on of the handgrip filled 2 more. Underneath there is a ricasso.

210	52	7
101	34	-

Pub. Lib. Armagh

IRELAND

No. 291 (Fig. 29). Part of lower middle portion of blade. Its surface is smooth and the edges are bevelled. In section it is flat oval.

Length 156mm. Pub. Lib. Armagh.

IRELAND

No. 292 (Fig. 29). The entire lower portion of the blade is wanting. It would appear that a slight ridge ran parallel to the edges but these have suffered some damage and are quite blunt. The surface is smooth and in section the blade is a pointed oval. The handgrip has slight flanges, it contains 2 large rivet holes and a ridge extends up the grip on each side of these. The shoulder has a rivet perforation on each side, but the outer casing of that on the right side has been broken off. There is a slight ricasso.

375	49	-
102	-	-

Pub. Lib. Armagh.

IRELAND

No. 293 (Fig. 29). Part of what appears to be the upper portion of leafshaped blade. From a width of 27mm. it widens to 35mm. Its surface is smooth and it is flat oval in section. The edges are bevelled.

Length 98mm. Pub. Lib. Armagh.

IRELAND

No. 294 (Fig. 29). Tip of blade. From a width of 34mm. it narrows into a point. In section it is flat oval and the bevelled edges have suffered some damage.

Length 110mm. Pub. Lib. Armagh

IRELAND

No. 295 (Fig. 29). Tip of blade, it is yellowish in colour and is quite smooth. From a width of 46mm. the fragment tapers to a point which is slightly bent. In section it is flat oval and the edges are slightly bevelled.

Length 140mm. Armagh Mus. 29. 1955

IRELAND

No. 296 (Fig. 29). Most of the blade of this sword is wanting. What survives is flat oval in section, it is darkish in colour and a slight ridge runs parallel to the edges which are drawn out. The handgrip possesses slight flanges and contains 3 perforations. The shoulder is straight sided and possesses a total of 4 rivet holes, 2 on each side. The centre is occupied by a slight swelling and there is a ricasso.

240	51	7
105	34	-

Armagh Mus. 30: 1955

IRELAND

No. 297 (Fig. 29). Lower portion of what would appear to have been an almost parallel sided blade. Its edges are blunt but the surface is reasonably smooth.

Present length 158mm. Armagh Mus. 175: 1935

IRELAND

No. 298 (Fig. 29). The handgrip is flanged and there are 2 rivet holes present. The shoulder contains 2 perforations. The tips are slightly beaked and there is a ricasso. The blade has been broken at two points, but has been repaired, perhaps in modern times. A somewhat irregular groove runs parallel to the edges about 6mm. in. In section the blade is lenticular.

425	49	5
96	28	12 ozs.

M.M.B. 1510 (A)

IRELAND

No. 299 (Fig. 29). In good state of preservation. The handgrip possesses slight flanges, there are 2 rivet holes present and between these the unperforated depression for a 3rd. The shoulder swelling bifurcates at the lower hole and continues, parallel to the flanges, up the web. The shoulder contains 2 rivet holes and the unperforated depression for 2 more. There is a ricasso. The blade is elliptical in section. Its surface is smooth and shows a rounded midrib with a low ridge running parallel to the edges.

439	44	9
104	32	16½ ozs.

M.M.B. 1510 B.

IRELAND

No. 300 (Fig. 30). The handgrip has been broken across a short distance above the point of mergence with the shoulder, but has been repaired by modern lead solder. The grip has slight flanges and a rivet hole, but the remains of another can be discerned at the repair. Below that point

a central swelling that extends up the shoulder bifurcates and continues up the grip in the form of 2 ridges. There are 2 rivet holes in the shoulder and a ricasso. The blade is a pointed oval in section. Its surface is somewhat rough and a low ridge can be discerned running parallel to the edges 6mm. in. The blade was broken at two parts but has been repaired by soldering.

430	40	5
100	38	9½ ozs.

M.M.B. 1510 A

IRELAND

No. 301 (Fig. 30). This sword possesses a modern handle and the hilt has been cut in on each side from the tips of the shoulders in order to receive it. The surface of the blade is quite smooth and hard. It is lenticular in section and the edges have been drawn out. The extreme tip is wanting. There is a ricasso.

473 (from shoulder tip to point)	48	7
-	42	-

M.M.B. 6.64

IRELAND

No. 302 (Fig. 30). Lower portion of blade pointed oval in section. The edges have been damaged and are now blunt. The tip has been ground down slightly.

388	-	8
-	38	-

M.M.B. 3884 (6.9)

IRELAND

No. 303 (Fig. 30). Blade, somewhat leafshaped in outline. There is an accretion of iron oxide over portion

of the surface and the tip is wanting. The blade is elliptical in section and it appears that the edges are drawn out.

333	-	7
-	29	-

M.M.B. 3890(6.10) B

IRELAND

No. 304 (Fig. 30). Lower portion of blade that has been cut clean off. It is elliptical in section and a low ridge runs parallel to the edges. The extreme tip is wanting.

237	-	7
-	26	-

M.M.B. 3890 (6.15) D

IRELAND nr. THE SHANNON

No. 305 (Fig. 30). The handgrip possesses very slight flanges. It contains 3 perforations, but the space between these has been sunk down considerably, almost forming a slot, on one side. The shoulder contains 4 perforations, 2 on each side, and the unperforated depressions for 2 more. The blade widens, but very slightly and reaches its maximum width about two-thirds its way down. In section the blade is lenticular and the edges have been drawn out.

526	45	5
101	29	16 ozs.

M.M.B. 1911: 37

IRELAND

No. 306 (Fig. 30). The pommel end of the handgrip is wanting. What survives is flanged, it contains a rivet

hole and the remains of another at the broken end. There are 2 perforations in the shoulder and a ricasso underneath. A large portion of the blade is rough and pitted, but the remainder is smooth and yellowish in colour. The surface shows a rounded midrib the base of which rises abruptly for about 2mm. From that point the edges are bevelled.

491	45	7
-	46	-

M.M.B. 1911: 38

IRELAND

No. 307 (Fig. 30). The handgrip is flanged and contains 2 perforations. There are 2 rivet holes in the shoulder and a ricasso underneath. The lower part of the blade is wanting. In section the surviving portion is lenticular and the edges have been drawn out.

260	46	5
100	28	-

M.M.B. 1911: 133 C

IRELAND

No. 308 (Fig. 30). The handgrip and part of the shoulder has been broken off. The intact part of the shoulder contains a rivet hole while on the fractured side there are the remains of 3 perforations. The lower part of the blade is wanting. The surviving fragment is bent, it is lenticular in section and there is some evidence for a slight ridge running parallel to the edges.

260	-	5
-	30	-

M.M.B. 1911: 133 D.

IRELAND

No. 309 (Fig. 30). Portion of handle and blade. The handgrip has been cast on. What survives is plain, it contains 1 perforation and there are the remains of another at the fractured end which is 18mm. wide. The shoulders have been damaged, it would appear that they were straight-sided and contained 2 perforations. The stump of the blade is elliptical in section and the edges are drawn out.

100 - 6
- 20 -

M.M.B. 1911: 133 E

IRELAND

No. 310 (Fig. 30). Lower part of blade. Its surface is reasonably smooth, but there are some slight waves which may have indicated differential cooling. The fragment is elliptical in section and a slight ridge runs parallel to the edges which have suffered some damage. The extreme tip is wanting.

213 - 7
- 32 -

M.M.B. 1911: 133

IRELAND

No. 311 (Fig. 30). Lower portion of blade, the extreme tip of which is wanting. It is flat oval in section and a low ridge runs parallel to the edges which have suffered considerable damage. Towards the tip the edges have been drawn out.

200 - 7
- 34 -

M.M.B. 1911: 133 G

IRELAND

No. 312 (Fig. 30). Handgrip wanting. The shoulder contains 4 rivet holes, 2 on each side. The blade has been broken across just below its narrowish part underneath the shoulder but has been repaired by modern solder. A low ridge can be discerned running parallel to the edges which in places have suffered slight damage.

525	45	4
-	37	-

M.M.B. 1911: 166A(B.12)

IRELAND

No. 313 (Fig. 30). The handgrip is wanting and the shoulders are rounded. They contain 2 perforations and there are the remains of another at the fractured end. The blade is plain, it is lenticular in section and the extreme tip is wanting. The genuineness of this object may be open to question.

400	36	6
-	33	-

M.M.B. 1911: 166 B

IRELAND

No. 314 (Fig. 30). Lower portion of blade and almost whole of hilt missing. The surface of what survives is rough and in places bears an accretion of iron oxide. In the remaining part of the shoulder there are the remains of a rivet perforation. In section the blade is plain convex and the edges are quite blunt.

375	-	4
-	35	-

M.M.B. 1911: 166C(991:161)

IRELAND

No. 315 (Fig. 30). The handgrip is wanting. There are 2 perforations in the shoulder and the centre is occupied by a swelling. The blade is flat oval in section.

466	47	5
-	37	-

M.M.B. 1911: 166 D (B.13)

IRELAND

No. 316 (Fig. 30). The handgrip is wanting. The shoulders have also been damaged, they would appear to have been straight-sided and contained a total of 4 perforations, 2 on each side. The blade is plain, its surface is somewhat irregular and in places pitted. It has been broken across at the narrowest part below the shoulder but has been repaired by leddsolder. The blade is slightly leaf-shaped in outline and in section is lenticular.

393	32	7
-	28	-

M.M.B. 1911: 166E

IRELAND

No. 317 (Fig. 30). Almost the whole of the blade of this sword is wanting and the broken end has been sharpened to a point to give a dagger effect to the weapon. The handgrip is flanged, there are 2 perforations present and between these the unperforated depression for another. There are 2 holes in the shoulder and a ricasso underneath.

164	36	-
94	-	-

M.M.B. 1911: 170

IRELAND

No. 318 (Fig. 30). The lower part of the blade is missing. What survives is lenticular in section and is featureless. The plain handgrip contains a total of 6 perforations. One of the terminal "wings" has now been broken off. There are 5 rivet holes in the shoulder, one side contains 3, but one of these is out of line and may be a later addition. A line running across the shoulder indicates the base of the handle.

276	47	5
99	28	-

M.M.B. 102: 1906

IRELAND

No. 319 (Fig. 31). The plain handgrip contains 3 perforations, there are 4 in the shoulder and a ricasso underneath. The blade is flat oval in section, its surface is reasonably smooth and shows a flattish midrib that is flanked on each side by a shallow groove and a ridge along the edges. The latter have been drawn out from that point and are now slightly damaged.

510	48	6
102	38	17 ozs.

M.M.B. 104: 1906

IRELAND

No. 320 (Fig. 31). The handgrip possesses very slight flanges. There are 3 rivet holes present and on each side of these a ridge runs up the length of the web. The shoulder contains 3 rivet holes and the unperforated depression for a 4th. There is a ricasso. Slight traces of the handle extent can be discerned running across the shoulder. Only a very slight widening of the blade occurs. It is elliptical in section and in places a very low ridge

runs parallel to the edges which are drawn out from that point. These have suffered some damage and the blade has been broken at about the narrowest part below the shoulder.

490	44	6
105	29	14¾ ozs.

M.M.B. 476: 1937

IRELAND

No. 321 (Fig. 31). The pommel end of the handgrip is wanting. The surviving portion contains very slight flanges that extend down the shoulder. There is a counter sunk rivet hole present and the remains of another at the fractured end. The shoulder contains 2 perforations. Underneath on the left side there is evidence for a very slight ricasso. The surface of the blade is reasonably smooth, it is flat oval in section and a slight ridge runs parallel to the edges.

494	47	5
-	33	-

M.M.B. 468. 1937

IRELAND

No. 322 (Fig. 31). In good state of preservation. The handgrip is plain and possesses 2 rivet holes. The shoulders are slightly rounded at the tips and a curve running across the shoulder indicates the base of the handle. They contain 2 rivet holes and the unperforated depressions for 2 more. There is a ricasso. The blade is elliptical in section and shows a rounded midrib, the side of which have been drawn out to form the edges.

473	42	7.5
96	39	16¾

M.M.B. 471: 1937 A

IRELAND

No. 323 (Fig. 31). The handgrip is missing. The shoulder contains 4 rivet holes, 2 on each side, but the outer casing of all has been broken off. There is evidence for a slight ricasso. The surface of the blade is smooth and is brownish in colour. It is elliptical in section and a slight ridge runs parallel to the edge.

483	43	6
-	36	-

M.M.B. 473: 1937

IRELAND

No. 324 (Fig. 31). The hilt of this sword has suffered considerable damage. The handgrip is wanting and the shoulder has been cut in from the sides to form a tang 30mm. long by about 19mm. broad. There is a ricasso present. The blade is lenticular in section and its edges have been drawn out.

508	-	6
-	40	-

M.M.B. 475: 1937 B

IRELAND

No. 325 (Fig. 31). About the middle portion of blade. The surface is smooth and bears a green patination. The fragment is lenticular in section and the edges are bevelled.

282	-	7
-	39	-

M.M.B. 195: 1951

IRELAND

No. 326 (Fig. 31). Only the shoulder and the adjoining parts of the handgrip and blade survives. The grip, which has been cast on at the point of junction with the ~~blade~~ SHOULDER, has slight flanges and there are the remains of a rivet hole at the fractured end. There are 4 perforations in the shoulder, but their outer casings have been broken off and the casting on of the grip may have filled in 2 upper holes. Underneath, there is a slight bluntening of the sides and what survives of the blade is flat oval in section. Thewhole of the surface is rough and is dark in colour.

90	52	-
-	-	-

M.M.B. 195: 1951 A

IRELAND

No. 327 (Fig. 31). Only a stump of the blade survives and at the broken end this has been cut back on each side to form a tang. A low ridge runs parallel to the edges. The handgrip is flanged and these extend down the shoulders. There are 2 perforations present and between these there is a hollow. The shoulder contains 2 rivet holes and there is a ricasso. Along the sides of the hilt the mould join is clearly visible.

172	45	-
99	-	-

M.M.B. 210: 1955

? IRELAND

No. 328 (Fig. 31). Half of handgrip and half of blade is missing. The grip is plain and contains a rivet hole and the remains of another at the fractured end. There are 4 perforations in the shoulder. Over the surface of

of the blade there is a dark green patination and a ridge runs parallel to the edges.

298	42	5
-	32	-

Bristol Mus. E.175

? IRELAND

No. 329 (Fig. 31). The pommel end of the handgrip is wanting. There are slight flanges on the surviving part, it contains 2 rivet holes and on each side of these low ridges occur, The shoulder contains 4 perforations and a ricasso. The blade has been broken at about midpoint but subsequently was repaired. The surface bears a dark brown patination and shows a rounded central fullness flanked on each side by a shallow groove and a ridge along the edges.

397	48	6
-	34	-

Bristol Mus. E.177

PROBABLY IRELAND

No. 330 (Fig. 31). Only a stump of the handgrip survives. There are 2 perforationsin the shoulder. The blade has been broken across at about midpoint. It shows a low rounded central swelling with a very shallow groove on each side and a ridge along the edges.

482	45.5	6
-	36	-

Bristol Mus. 7: 863

IRELAND

No. 331 (Fig. 31). Plain, almost parallel sided, handgrip with 3 rivet holes. There are 6 perforations

in the shoulder and there may originally have been a ricasso. Only about a third of the blade below the hilt survives. Its surface is smooth and free from patination. In section it is elliptical and the edges have been drawn out.

257	43	5
100	-	-

U.M.A.Cantab., M.C. 99. 188

IRELAND

No. 332 (Fig. 31). This sword has suffered considerable damage and it is in a bad state of preservation. The blade has been broken across at about midpoint and the tip is wanting. The edges are gapped and in places a slight ridge running parallel to these can be discerned. Portion of the surface bears an accretion of iron oxide. Only a stump of the handgrip survives and there are 2 perforations in the shoulder.

444	-	6
-	36	-

U.M.A.Cantab. M.C. 99. 189

IRELAND

No. 333 (Fig. 31). Only the shoulder and a small portion of the blade of this sword survives. The shoulder contains 2 perforations and there is a slight ricasso.

120	43	-
-	-	-

U.M.A.Cantab. M.C. 99. 190

IRELAND

No. 334 (Fig. 31). Stump of handgrip, shoulder, and short portion of blade is all that survives. The grip

contains low flanges, there are 2 perforations in the shoulder and the depressions for 3 more. There is a slight ricasso.

80	44	-
-	-	-

U.M.A.Cantab., M.C. 99. 191

IRELAND

No. 335 (Fig. 31). Roughly middle portion of blade. In section it is flat oval and a slight ridge runs parallel to the edge.

97	-	6
-	34	-

U.M.A.Cantab., M.C. 99. 192

IRELAND

No. 336 (Fig. 31). In good state of preservation. The handgrip contains 2 rivet holes and thickens towards the edges. For a short distance on each side of the perforation a ridge occurs. There is a depression in the centre of the terminal. The shoulder contains 4 perforations and there is a slight ricasso. The blade is elliptical in section with a ridge running parallel to the edges.

583	48	7
100	37	23¼ ozs.

U.M.A.Cantab., F.B. 239:P.B148

IRELAND

No. 337 (Fig. 31). In good state of preservation. The handgrip is almost parallel sided and at the end projects very slightly to each side. It was intended to have 4 holes in the centre, but only 2 of these have been

perforated. On one side there is a poorly developed flange. There are 2 perforations in the shoulder and a ricasso underneath. The blade has been broken near mid-point. Its surface is quite smooth and shows a central swelling flanked on each side by shallow depressions and a ridge along the edges.

501 47 5
100 35 -
N.M.D. I.128

IRELAND

No. 338 (Fig. 32). Lower portion of blade. The tip is wanting and at the other end the edges have been cut back for about 5mm. to form a broad tang. This may have taken place subsequent to the discovery of the sword. The blade is flat oval in section and a slight ridge runs parallel to the edges.

290 - 5
- 36 N.M.D. OA. VII. j 4

IRELAND

No. 339 (Fig. 32). Lower part of blade, pointed oval in section. At the fractured end a broad tang has been formed by hammering the edges over in different directions and they now stick up like flanges. The tip is wanting.

172 - 4
- 30 -
N.M.D.

IRELAND

No. 340 (Fig. 32). Only a fragment, shoulder and adjoining part of the blade, survives and this has suffered considerable damage. It is likely that the shoulder was

straight and it is possible to discern the remains of a rivet hole on the sinister side. There is a ricasso.

Length 167mm. C.P.M. L.188:60

IRELAND

No. 341 (Fig. 32). Only a stump of the handgrip survives. This has slight flanges that extend down the shoulder and there are the remains of a rivet hole at the fractured end. The shoulder contains 2 perforations but the outer casing of that on the sinister side has been broken off. For most of its length the blade is almost parallel sided. It has been broken at two places near mid-point, each has been repaired in modern times.

336 - -

- 31 -

C.P.M. L.188:61

IRELAND

No. 342 (Fig. 32). The handgrip has been cast on at about midpoint on the shoulder, it is flanged, and contains 3 perforations. On each side of these a ridge occurs. One of the terminal projections has been broken off. The shoulder contains 2 rivet holes. Only a short portion of the blade survives.

195 - -

100 - -

C.P.M. L.188:62

IRELAND

No. 343 (Fig. 32). Lower portion of parallel sided blade. It is plain and featureless.

C.P.M. L.188:64

Length 253mm.

Max. width 23mm.

IRELAND

No. 344 (Fig. 32). Part of the lower portion of blade. The extreme tip is wanting and the edges have been damaged.

Length 177 C.P.M. L.188:65

IRELAND

No. 345 (Fig. 32). Part of lower portion of blade. This has been damaged and the tip is wanting.

Length 145 C.P.M. L.188:66

IRELAND

No. 346 (Fig. 32). Shoulder and portion of blade. It was intended to have 4 rivet holes in the shoulder, but only 3 have been perforated. There is a ricasso.

147	45	-
-	-	-

C.P.M. L.188:71

IRELAND

No. 347 (Fig. 32). The handgrip possesses slight flanges and 3 rivet holes. On each side of these a low ridge occurs. The shoulders contained 4 perforations but the outer casing of the two lower examples, especially that on the left side, has been broken off. There is a ricasso. The blade is plain and featureless, it has been broken across at about midpoint but has been repaired in modern times.

473	-	-
100	28	-

C.P.M. L.188:74

IRELAND

No. 348 (Fig. 32). In good state of preservation. The handgrip is flanged, there are 3 holes present, but the upper one is not perforated fully. On each side of these two raised ridges run up the length of the grip. The shoulder contains 6 perforations, 3 of these retain their rivets and a 4th has not been fully BORED, the heads of these rivets are hollowed in the centre. The centre is occupied by a distinct invertedVshaped swelling that extends up to the lower hole in the grip. There is a ricasso. The blade bears a dark patination. It is elliptical in section and a ridge runs parallel to the edges.

The hollow headed rivets and the very distinct shoulder swelling may suggest Hallstatt influences.

547	48	7
103	35	24 ozs.

N.M.I. P.241.

IRELAND

No. 349 (Fig. 32). The pommel end of the handgrip is wanting, the surviving part contains 3 perforations. The shoulders contains a total of 5 rivet holes and a depression intended for a 6th. There is a ricasso. In section the blade is a flat oval and a slight ridge runs parallel to the edges; the latter have suffered some damage. The surface of the sword is pitted and to some extent this gives an irregular effect.

564	46	7
-	38	-

N.M.I. P.245 (CC.7:5)

IRELAND

No. 350 (Fig. 32). This sword is in a damaged condition. Only a stump of the hilt is extant and this has been

considerably mutilated, its sides have been cut away, and with them possibly the ricasso. A triangular swelling out of the base of the blade is carried down into this area, which must have been the centre of the shoulder. Three holes, arranged as if to form the apex of a triangle, and part of a ~~third~~ FOURTH one ARE bored in this thick portion. Near the end, on each side of the swelling, two small holes are found. Due to the other visible damage it is difficult to say how many, if any, of these perforations are original. Underneath the blade tends to contract slightly to 30mm., 17mm. below the pommel end, but it again widens out somewhat further down the blade, The blade is a flat oval in section, it is quite smooth and has a slight ridge and groove running parallel to the edge about 5mm. in. The tip is wanting.

535 - 6

\- 33 -

N.M.I. P.246(CC.7:11)

IRELAND

No. 351 (Fig. 32). This is a small, light, sword, the handgrip has slight flanges and 3 rivet holes. The shoulder contains 2 perforations, but the outer casing of one has been broken away. The blade is flat oval in section and it is plain and featureless. The edges have suffered some damage and the extreme tip is wanting. It has been broken in two places at the narrowest part, but these have been repaired.

447 - 4.5

90 24 8 ozs.

N.M.I. P.247(CC.7:7)

IRELAND

No. 352 (Fig. 32). The handgrip of this small sword is flangeless and there are perforations for 2 rivets present. It originally terminated in a 'fish tail' projection, but one of the wings is now broken off and the other is bent in on itself. The shoulder has 2 perforations. On the dexter side the tip has been broken off and consequently the outer casing of the hole.

In section the blade is a pointed oval. It has been broken at the narrowest part, but subsequently repaired. While in width both sides match at the joint they do not in thickness, the lower portion being .5mm. thicker than the upper. This would suggest that a portion is missing altogether or that the two portions now joined are from different weapons.

424 - 6

93 32 -

N.M.I. P.248 (CC.7:7)

IRELAND

No. 353 (Fig. 32). This sword has suffered considerable damage. Only the stump of the handgrip survives and the lower portion of the blade has been cut off. At the fractured end of the handgrip there are the remains of a rivet hole. There are 4 holes in the shoulder and a ricasso underneath. The blade is flat oval in section. The part near the side is slightly drawn out to form an edge.

325 37 6

- 27 -

N.M.I. P.249 (CC.7:7)

IRELAND

No. 354 (Fig. 32). This sword has suffered considerable damage, both the pommel end of the hilt and the lower portion of the blade ARE wanting. The surviving portion of the handgrip has slight flanges and these continue for about half way down the shoulders. At the fractured end there are the remains of a rivet hole. The shoulder has a perforation on each side, beneath, there is a slight ricasso. The blade is flat oval in section. A slight bevel runs parallel to the edges which have been slightly damaged.

178	45	-
-	-	-

N.M.I. R.364 (CC.7:11)

IRELAND

No. 355 (Fig. 32). Portion of approximately the middle area of leafshaped blade. In section it is a pointed oval and a slight ridge runs parallel to the edge about 3mm. in; the latter have been damaged. Over portion of the surface there are some slight grooves.

189	-	9
-	39	-

N.M.I. R.365 (CC.7:11)

IRELAND

No. 356 (Fig. 32). The grip is flangeless and contains 2 rivet holes. The shoulders have 2 perforations and a depression for a third that has not been fully bored. Underneath is a slight ricasso. The blade is grooved and bevelled and the surface is smooth, It has been broken across at the narrowest part.

525	42	7
105	37	-

N.M.I. R.2221 (CC.7:11)

IRELAND

No. 357 (Fig. 32). This sword is in a good state of preservation and has a smooth surface throughout. The handgrip possesses strong but low flanges and contains 3 rivet holes. The shoulder possesses 6 perforations, 3 on each side, and these increase in diameter from the top to the bottom. There is a ricasso underneath. The blade is of flat lens section. A slight rib runs parallel to the edges which have suffered a little damage.

626	50	5
100	42	22 ozs.

N.M.I. W.3 (CC.7:5)

IRELAND

No. 358 (Fig. 32). The upper portion of the handgrip is missing. What survives has slight flanges that continue down the shoulders and gradually fade out towards the point. It contains 1 rivet hole. There are 2 perforations in the shoulder and a slight ricasso underneath. The blade is of flat lens section and in places, particularly towards the point, a slight ridge runs parallel to the edges. These have suffered some damage. Part of the surface is pitted. Obviously the blade has been broken just below the narrowest part, it has been affixed by means of a collar which clasps both parts, no doubt a modern device.

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550	49	6
-	42	-

N.M.I. W.8 (CC.7:6)

IRELAND

No. 359 (Fig. 33). This sword has suffered considerable damage. The handgrip has been cast on at approximately the junction with the shoulder, but its upper portion is now

wanting. The grip has strong flanges and it contains a rivet hole, but at the fractured end there appears to be the remains of another, and between these there is a depression which may have been intended for an additional perforation. The shoulder has suffered some damage. It contains 2 rivet holes and the upper portion is covered with a spread of metal from the repair. There is a very slight ricasso underneath. The blade is slightly curved. Wilde suggests that this is probably due to a warp in casting. But as the weapon has suffered other damage this may also be the result of subsequent action. In section the blade is a pointed oval and a low ridge follows the outline of the edges, which in places are quite blunt.

527	41	7.5
-	38	-

N.M.I. W.9 (CC.7:5)

IRELAND

No. 360 (Fig. 33). This sword has been broken across just below the narrowest part of the blade, but otherwise it is in good condition. The handgrip has distinct flanges that continue down the shoulder gradually fading out towards the point. It contains 2 rivet holes. The blade is flat oval in section and a slight ridge runs parallel to the edges which have suffered some damage.

543	50	8
100	39	25 ozs.

N.M.I. W.12 (CC.7:6)

IRELAND

No. 361 (Fig. 33). The handgrip is wanting. The shoulders have a rivet hole on each side; both average 3mm. in diameter. In section there appears to have been a cavity at the point of break, which no doubt, can be accounted for by this weakness. There is a ricasso. The

blade has been well smoothened and is in good condition. Over the surface are slight grooves or incessions, these may be due to the material used (? sand) in the smoothening down process. The blade is flat oval in section. A slight ridge follows its outline about 5mm. in from the edge.

444	47	7
-	40	-

N.M.I. W.15 (CC.7:11)

IRELAND

No. 362 (Fig. 33). This sword is in a good state of preservation. The handgrip is flanged and contains 2 rivet holes. The swelling of the blade continues up almost to the lower rivet perforation, it then bifurcates and extends up the handgrip on e ach side of the rivet holes gradually fading out near the end. The shoulders, possess 2 rivet holes and depressions for 2 more that have not been fully bored. There is a distinct ricasso. The blade is covered with a blackish patina and the edges have suffered some damage. A slight ridge follows the outline of the blade about 4mm. in from the edge.

508	55	6
93	41	-

N.M.I. W.17 (CC.7:9)

IRELAND

No. 363 (Fig. 33). The handgrip, portion of the shoulder, and the extreme point of the blade is wanting. The shoulder contains 2 rivet holes and underneath possesses a rudimentary ricasso. The blade is flat oval in section, it is well smoothed but otherwise is featureless.

An analysis showed that the sword was made of a "beautiful compact metal, very hard and of yellow colour".

Specific gravity 8.819. It contains copper 87.07, tin 8.52, led 3.37 with a trace of sulphur (Wilde p.470)

428	43	3
-	30	-

N.M.I. W.24 (CC.7:9)

IRELAND

No. 364 (Fig. 33). This sword has suffered some damage. The hilt terminal is wanting as is the tip of the blade. The latter has also been broken across at the narrowest part but has been repaired. The edges are quite blunt and the tip of the shoulders have been broken off. The hand-grip has been cast on just at the point of mergence from the shoulder. It has slight flanges and contains a rivet hole and the depression for another. ~~From~~ The surviving portion of the shoulder contains a rivet hole, but the remains of another are visible on each side. It is also possible that the spread of metal, consequent to the repair, obscured a further example. The blade is of flat oval section. The surface is reasonably smooth and in places a slight ridge is discernable running parallel to the edges.

440	-	6.5
-	32	-

N.M.I. W.25 (CC.7:7)

IRELAND

No. 365 (Fig. 33). This sword is in a reasonable state of preservation. The grip possesses slight flanges. These have a maximum height of .4mm. in the middle, from that point they gradually fade out towards both ends. There is a rivet hole present and a depression for another. The terminal is somewhat rounded at the end. The shoulders possess rivet hole, and a depression that has not been fully bored for another, on each side. There is a ricasso.

The blade is smooth, but in places the edges are slightly serrated, perhaps due to modern damage. It is elliptical in section and a slight ridge follows its outline at a distance of 4mm. in from the edge. At the narrowest part, 213mm. from the tip, the blade is broken and just below this break, towards the point it is cracked. This may be due to faulty casting and may well have been responsible for the break in the first instance.

478	39	8
88	32	-

N.M.I. W.26 (CC.7:9)

IRELAND

No. 366 (Fig. 33). The terminal end of the handgrip is wanting. It has slight flanges and contains 3 rivet holes, on each side of the two upper examples there is a slight ridge. The grip has been cast on at the junction with the shoulder, but it is considerably thinner than the adjoining shoulder over which there is now a slight spread of metal. The shoulder contains 2 perforations. The blade is much corroded and a darkish patina covers most of the surface, this tends to flake away in places revealing a much rougher under layer. In section the blade is flat oval, and in places a slight ridge running parallel to the edge can be observed. The edges have suffered some damage.

448	43	6.5
-	30	-

N.M.I. W.27 (CC.7:7)

IRELAND

No. 367 (Fig. 33). Nearly all the handgrip and the extreme tip of the blade is wanting. The shoulder has also been damaged, it contains 2 rivet holes, but both have their outer edges ripped away. On the sinister side

there is slight evidence for a flange. The blade is rough in appearance and has a low ridge running parallel to the edge and a flat midrib.

440	-	7
-	35	-

N.M.I. W.35 (CC.7:11)

IRELAND

No. 368 (Fig. 33). At the junction with the shoulder the handgrip has been broken off, it was again attached, but the pommel end is now wanting. The handgrip has slight flanges and it contains a rivet hole and portion of another at the fractured end. The shoulders have one rivet hole on each side and a ricasso underneath. The blade is in good condition, it has a flat midrib and a slight bevel runs parallel to the edges, this merges with the central rib near the point.

465	44	7
-	39	-

N.M.I. W.45 (CC.7:9)

Bibliography:

Wilde, William, Catalogue p.443, Fig. 316 No.45

IRELAND

No. 369 (Fig. 33). Apart from the loss of the pommel end of the hilt this sword is in a good state of preservation. The handgrip has been cast on. It contains 2 rivet holes and a portion of a 3rd is visible at the fractured end. The flanges rise to a height of about 2mm. and are very thin. The shoulder contains 2 rivet holes, and depressions for 2 more that have not been fully perforated, beneath is a ricasso. The point and edges of the blade are very sharp. It has a "frosted" surface and does not appear to

have been smoothened or treated after having been taken out of the mould. It would seem that the casting was not a perfect success as small air holes are present.

494	44	7
-	36	-

N.M.I. W.57 (CC.7:11)

IRELAND

No. 370 (Fig. 33). This sword has suffered considerable damage. The blade, which is a bright brown colour, has been broken across at the narrowest part, and the original hilt became detached. However, a new one, but of darker or more coppery coloured metal was cast on, but this was not accomplished very satisfactory, it contains small cracks and perhaps as a result of this weakness the pommel end broke off and is now missing. The surviving portion of the handgrip, which is unusually broad, 27mm. has strong flanges, it contains a rivet hole and portion of another at the fractured end. The shoulder has 2 perforations and a ricasso underneath. The blade is bent near the tip. Its surface is smooth and shows a low midrib flanked by shallow grooving and a slight ridge towards the edge, the latter has suffered some damage. The repair of the blade has been effected by running in metal clearly distinguishable from the old blue to its "brassy" colour. During the operation both fractured ends were not kept an equidistance from one another, thus allowing more metal to get in at one side and resulting in the repaired weapon having a slight tilt in the hilt end. It has not been established if this repair is ancient.

430	45	5.5
-	33	-

N.M.I. W.60 (CC.7:7)

IRELAND (? CO. CAVAN)

No. 371 (Fig. 33). Fragment of blade that widens from 24mm. to 32mm. It is elliptical in section and a slight ridge follows the outline of the edge. This fragment does not tally with Wildes' description. According to him, in addition to the blade portion there was also part of the hilt that contained 7 holes and 2 indentations.

This fragment may have been found in Co. Cavan.

Length 90mm. N.M.I. W.74 (CC.7:11)

IRELAND

No. 372 (Fig. 33). Fragment of sword. The blade has been ground down to a triangular shape and the whole object now resembles a dagger. In section the blade is elliptical and the edges are drawn out. It is 7mm. in maximum thickness 40mm. from the tip. The hand plate, which is flangeless is in good condition. It terminates in a small "fish tail" projection and possesses 2 rivet perforations. Just at the shoulder it has been cast on. Immediately below the join there are two rivet holes and the shoulder reaches a maximum width of 40mm at this point.

Present length 187mm. N.M.I. W.75 (CC.7:11)

IRELAND

No. 373 (Fig. 33). Only the hilt and portion of featureless blade of this sword survives. The handgrip is flangeless, it thickens towards the centre and contains 3 rivet holes set close together. The shoulders contain 2 perforations on each side.

175	46	-
100	-	-

N.M.I. W.78 (CC.7:11)

IRELAND

No. 374 (Fig. 33). Fragment, the lower portion of the blade and the pommel end of the hilt is missing. A slight ridge runs parallel to the edge of the blade, which is blunt. In the centre the blade becomes oval in section; at a distance of 30mm. from the present point it is 24mm. in width and 10mm. in thickness. Traces of 2 rivet holes are discernable at the shoulder, but at this point the sword is very damaged. Immediately above this the handgrip is cast on. It possesses very slight flanges and 2 rivet holes each of which have portions of much damaged rivets held fast in position.

Present length 238mm. N.M.I. W.81 (CC.7:11)

IRELAND

No. 375 (Fig. 33). Only a small portion of the blade and handgrip of this sword survives. The latter is flanged and the swelling of the blade continues up to its base, but then bifurcates into two raised ridges. Between these at the fractured end the remains of a rivet hole can be observed. The shoulders are rounded but this appears to be due to subsequent damage. They contain 2 rivet holes on each side, but the outer casing of the bottom two is largely broken off. The blade is elliptical in section and the surviving portion is featureless.

155	-	9
-	-	-

N.M.I. W.82 (CC.7:11)

IRELAND

No. 376 (Fig. 33). Lower portion of blade. In section it is a flat oval and is otherwise featureless. The tip is wanting, the edges are blunt and in places have been

damaged.

230 - 5

\- 28 -

N.M.I. W.83 (CC.7:11)

IRELAND

No. 377 (Fig. 34). This sword has been considerably damaged and is in a bad state of preservation. It would appear that the handgrip has been affixed at the junction with the shoulder. The pommel end is wanting, what survives bears an accretion of iron oxide and the sides are jagged. There is a rivet hole present. The shoulder contains a perforation on the left side and on the other a stump of rivet projects on both sides. The blade is of flat lens section and the tip is missing. It has been broken at about midpoint but has been repaired in modern times with lead solder. Its surface is rough throughout, the edges are blunt and appear to have been cut away. In places, at the present edge, a slight thickening is discernable, this may have been the original ridge.

435 - 5

\- 30 -

N.M.I. W.91 (CC.7:7)

IRELAND

No. 378 (Fig. 34). For the size of the blade this sword possesses a very narrow handgrip. The grip has slight flanges and there are 2 rivet holes present. The upper contains a rivet 11mm. long and 2 in diameter, a stump survives in the lower. A swelling out of the base of the blade continues up to that point, it then bifurcates and extends up the grip in the form of 2 ridges, which fade out at the terminal. The shoulder also contains 2 perforations,

that on the right side has the stump of a rivet in place. There is a ricasso. The blade is a flat, or approaching a pointed, oval in section and a slight ridge runs parallel to the edges about 5mm. in. The latter have suffered some damage and the tip is wanting.

455	40	6.5
99	35	-

N.M.I. W.93 (CC.7:7)

IRELAND

No. 379 (Fig. 34). The handgrip is flangeless and contains 2 rivet holes. The shoulder has 2 rivet holes and a distinct ricasso underneath. The blade has a smooth surface and is elliptical in section. The edges are sharp and a slight ridge follows their outline.

518	46	7
98	37	-

N.M.I. W. (CC.7:9)

IRELAND

No. 380 (Fig. 34). Most of the handgrip and a large part of the blade is wanting. The shoulder contains a rivet hole on each side and depressions for two more that have not been fully perforated. The swelling of the blade continues up the handgrip and this is flanked on each side by slight ridges. At the fractured end portion of a rivet hole is visible. The surface of the blade is rough and it is a flat oval in section. Underneath the shoulder on the right side a shallow ricasso is present and from there a low ridge follows the outline of the blade.

180	45	6
-	-	-

N.M.I. S.A.1913: 86 (CC.7:11)
(O'Meath Park Collection, Co. Louth)

IRELAND

No. 381 (Fig. 34). Portion of a leafshaped blade which is flat oval in section. The edges are quite blunt and a very slight ridge follows their outline. The surface is covered ~~by~~ with a blackish patina.

180 - 7
- 35 -

N.M.I. S.A. 1913: 88(CC.7:11)
(O'Meath Park Collection, Co. Louth)

IRELAND

No. 382 (Fig. 34). Part of hilt and blade. The pommel end of the handgrip is missing. What survives contains 2 perforations and at the side very slight flanges project outwards giving an opposed C effect. The shoulder contains 2 perforations and there is a ricasso. The blade stump is elliptical in section and a low ridge runs parallel to the edges, which are very blunt. The surface is coated by a black patina, and there are some marks that may be the result of hammering. Whether this occurred in ancient or recent times it is difficult to say.

155 51 -
- - -

N.M.I. 1875: 115(CC.7:11)

IRELAND

No. 383 (Fig. 34). Tip portion of blade. It is elliptical in section and a very slight ridge runs parallel to the edges. These have been damaged and the tip is wanting.

As this and the previous example have the same Reg. No. they may have formed part of the same sword.

156 - 5
- - -

N.M.I. 1875: 115(CC.7:11)

IRELAND

No. 384 (Fig. 34). This sword is in a tolerable state of preservation. The handgrip is flangeless, it contains 2 rivet holes and slight ridges run on each side of these down the length of the grip. At midpoint a break has been repaired. This has been executed with perfect skill and apart from a slight spread of metal over the surface it is scarcely discernable. The shoulder is rather long, it contains 3 rivet holes and an unperforated depression for a 4th. The blade is heavy, its edges are blunt and in places a ridge follows their outline. It is thickest, 10mm. at its narrowest point, where it is elliptical in section, it then thins down somewhat and at its widest point becomes more flattened.

574	51	8
111	40	29 ozs.

N.M.I. 1877: 56 (CC.7:5)

IRELAND

No. 385 (Fig. 34). This sword is in a good state of preservation. The handgrip has thick flanges, which continue down the shoulder for a short distance, and 2 rivet holes. Between these there is a depression for a third. The shoulders contain 2 holes and depressions for 2 more that have not been fully perforated. There is a slight ricasso. The blade has a central swelling which is flanked on each side by a broad and shallow groove and further towards the edge a ridge. There are shallow incisions over portion of the surface.

634	48	9
114	41	30 ozs.

N.M.I. 1880: 24 (CC.7:5)

IRELAND

No. 386 (Fig. 34). The blade is elliptical in section and has slightly ground edges with a low ridge following their outline. It is slightly curved towards the point and its edges have suffered some damage. The shoulder has 2 rivet holes and there is a ricasso. The handgrip is flanged, it contains 2 rivet holes and its pommel end is missing, having broken off at the upper rivet perforation.

446	42	7
-	30	-

N.M.I. 1882/184 (CC.7:9)

IRELAND

No. 387 (Fig. 34). Lower portion of blade. In section it is flat oval, the surface is smooth and a ridge runs parallel to the edge. From a width of 32mm. at the fractured end the blade tapers to a point.

Present length 210mm. N.M.I. 1882: 185(CC.7:11)

IRELAND

No. 388 (Fig. 34). Portion of blade. It is grooved and bevelled, the edges have suffered some damage and are blunt. A greenish patina covers the surface.

Present length 80mm. N.M.I. 1882: 186(CC.7:11)

IRELAND

No. 388A (Fig. 34). Portion of blade. It is grooved and bevelled and the surface is covered with a blackish patina. Portion of the edges have been bluntened. Slight air holes in the metal are noticable over part of the surface.

Present length 75mm. N.M.I. 1882: 186A(CC.7:11)

IRELAND

No. 389 (Fig. 34). The lower portion of the blade and the handgrip of this sword is wanting. The shoulders contain a rivet hole on each side. Below the shoulder point there is a small indentation in the blade on both sides. The blade possesses a much flattened midrib and its edges are blunt. The surface is rough and over portion are marks which may be due to hammering.

143	35	-
-	-	-

N.M.I. 1885: 115(CC.7:11)

IRELAND

No. 390 (Fig. 34). The handgrip is flanged, it contains 3 rivet holes and these are flanked on both sides by low ridges that extend down to base of grip. The shoulder contains 2 rivet perforations, its tip is wanting on the sinister side and consequently the outer casing of one of the perforations. There is a slight ricasso. The blade is of flat oval section. The surface is somewhat rough and shows a rounded but flattened central swelling, flanked by a shallow grooving and a slight ridge towards the edge.

474	-	6.5
101	33	15 ozs.

N.M.I. 1886: 87 (CC.7:7)

IRELAND

No. 391 (Fig. 34). Lower portion of blade. It tapers from a width of 42mm. to a point. The fragment is a flat oval in section and a small ridge runs parallel to the edges. Most of the surface is covered with a blackish green patina and particles of corrosion.

Present length 180mm. N.M.I. 1890: 34 (CC.7:11)

Maximum thickness 6mm.

IRELAND

No. 392 (Fig. 34). Almost the entire handgrip is wanting. In the fractured end there are traces of a perforation. The shoulder contains 4 rivet holes and there is a very slight ricasso. The blade is flat oval in section. Apart from a slight ridge running parallel to the edge, near the point, it is featureless. The surface of the lower portion of the blade is reasonably smooth and is yellowish in colour, but towards the hilt it roughens somewhat and is covered with a blackish patination.

373	42	5
-	32	-

N.M.I. 1893: 2 (CC.7:7)

IRELAND

No. 393 (Fig. 34). This sword has suffered some damage, the point of the shoulder on the left side has been cut off and the tip of the blade is wanting. The latter has also been broken across at the narrowest point. The flangeless grip contains three rivet holes and slight ridgesrun down the web on each side of these. The shoulder contains 4 rivet holes. The uppermost, on the dexter side, has a stump of what appears to have been an iron rivet in position, but this may well have been a later insertion. There is a ricasso. A ridge runs parallel to the blade edges and these have suffered some damage. It is covered with a blackish patina and in places some slight incisions of the surface are visible. It is also cracked in two or three places.

490	-	7
98	36	-

N.M.I. 1896: 6 (CC.7:6)

IRELAND

No. 394 (Fig. 34). Lower portion of blade. The surface is smooth and the edges which are slightly drawn out have

suffered some damage.

223 - 8

\- 34 -

N.M.I. 1897: 173(CC.7:11)

IRELAND

No. 395 (Fig. 34). The handgrip is flangeless, although on one side it tends to thicken towards the edges giving a hollow effect. There are 2 rivet holes present and 2 more in the shoulder. There is a ricasso. A blackish green patination covers the surface of the blade and patches of corrosion occasionally occur. A low central swelling runs down the centre, this is flanked by a shallow groove and a slight ridge to the edges. The blade has been broken at the narrowest part and an attempt in modern times to repair it has further damaged the weapon.

410 38 5

99 30 9 ozs.

N.M.I. 1906: 225(CC.7:11)

IRELAND

No. 396 (Fig. 34). Portion of blade. It is of pointed oval section and a slight bevel runs parallel to the edge. The point is missing and the blade is curved at the hilt end.

270 - 6

\- 37 -

N.M.I. 1906: 226(CC.7:11)

IRELAND

No. 397 (Fig. 34). Approximately the middle portion of a blade. The surface is covered with a dark patination and the edges have suffered some damage. It is flat oval

in section and a ridge runs parallel to the edges about 5mm. in.

245	-	7
-	30	-

N.M.I. 1906: 227 (CC.7:11)

IRELAND

No. 398 (Fig. 34). Only portion of hilt and blade of this sword survives. The handgrip, which is flangeless, has been cast on just at the point of mergence with the shoulder, but the process does not appear to have been very effective and it contains numerous small air holes. The pommel end has broken off again and in the fracture, the remains of a rivet hole are visible. The shoulder which is straight sided, contains 2 large rivet holes and the remains of 2 others now partly covered by the repaired handle can be observed. The blade is elliptical in section, it possesses a ricasso underneath the shoulders and a slight ridge runs parallel to the edge.

129	39	-
-	-	-

N.M.I. 1906: 228 (CC.7:11)

IRELAND

No. 399 (Fig. 35). Lower portion of blade which is bright brown in colour. From the broken end, where it is 29mm. in width, the fragment tends to widen slightly and reaches its maximum width 120mm. from the point. The edges have suffered some damage, but the surface is reasonably smooth. The blade possesses a low flat central swelling flanked by a shallow groove and a slight ridge to the edge.

200	-	5
-	32	-

N.M.I. 1918: 5(CC.7:11)

IRELAND

No. 400 (Fig. 35). Portion of blade. Towards the hilt end the edges have been broken off and show signs of having been flattened as if for gripping purposes. The edges are bevelled and show a number of clean cuts. The blade is a pointed oval in section.

270	-	4
-	31	-

N.M.I. 1928:666(C.1:8)

IRELAND

No. 401 (Fig. 35). This sword is in a good state of preservation. The handgrip possesses broad, but low, flanges which also project outwards a little. There are 2 rivet holes present and a slight ridge runs on each side of these. The shoulder contains 4 rivet holes and there is a distinct ricasso. The blade has been well polished down, it is flat oval in section and a ridge runs parallel to the edge.

505	43	7
105	39	21 ozs.

N.M.I. L.1947: 8(B.3:13/14)

IRELAND

No. 402 (Fig. 35). The lower two thirds of the handgrip possesses broad but low flanges. One of the terminal 'wings' is now wanting. There are 2 rivet holes present and between these the unperforated depression for a 3rd. On each side two slight ridges occur. The shoulder contains 4 perforations and at the top 2 small depressions. The blade is of flat oval section and the surface is fairly smooth. In places a very low ridge running parallel to the edges can be observed.

503	45	7
105	33	18½ ozs.

N.M.I. L.1947: 9(B.3:13/14)

IRELAND

No. 403 (Fig. 35). The pommel end of the handgrip which was apparently badly cast is now broken off and missing. The surviving portion of the grip contains a perforation and the remains of another at the fractured end. At that point two ridges that run up the web almost converge. The shoulder contains 2 rivet holes and there is a slight ricasso. About half of the lower portion of the blade is wanting. The blade is flat oval in section and the edges are bevelled. The cutting edges are now much damaged particularly near the break.

207	48	-
-	-	-

N.M.I. 1957: 145 (B.16:3)

Bibliography:

J.R.S.A.I., 88,(1958), 122

IRELAND

No. 404 (Fig. 35). Fragment of blade. This is bent and gives a flattened S profile. The surface shows a low and flat central swelling flanked by a groove on each side and a ridge along the edge. These have been damaged. There are traces of a brownish patination present.

Length 190mm. N.M.I. 1959: 169(B.19.3)

IRELAND

No. 405 (Fig. 35). In good state of preservation, the surface is smooth and is free from patination. The hand-grip is strong and flanged. It contains 2 rivet holes and between these the unperforated depression for a third. The shoulder contains 2 perforations and the depressions for 2 more. There is a ricasso. The blade is a pointed oval in section with a distinct ridge running parallel to the edges. These have suffered some damage. The extreme tip

is wanting.

470	49	6
102	39	18 ozs.

N.M.I. 1959: 175(B.19:4)

IRELAND

No. 406 (Fig. 35). The handgrip has been cast on just above the point of mergence from the shoulder. It contains slight flanges and terminates in a hollowed projection to each side. There are 2 rivet holes present and at the base the depression for a 3rd. On each side of this slight ridges occur. There are 4 rivet holes in the shoulder. The lower half of the blade is wanting. The surviving portion shows a rounded central swelling that is flanked by a shallow groove and a ridge along the edges.

265	41	-
100	-	-

N.M.I. 1959: 623(B.20:3)

IRELAND

No. 407 (Fig. 35). The upper half of the handgrip is wanting. The surviving portion contains a hole and the remains of another in the fracture. There are 6 rivet hole depressions in the shoulder, but only 2 of these are now perforated and the lower example on the sinister side contains a rivet stump. Underneath there is a ricasso. The lower portion of the blade is missing and the surviving part has been broken at two places. In section it is a flat lens and a ridge runs parallel to the edges.

376	46	4
-	39	-

N.M.I. 1959: 625(B.20:3)

IRELAND

No. 408 (Fig. 35). Middle portion of blade, bright brown in colour and with smooth surface. From a width of 24mm. (9mm. thick) it widens to 27mm. (6mm. thick). In section it is elliptical and the edges are drawn out. In profile it assumes the form of a softened S.

Length 130 N.M.I. (No. Reg. No.) (CC.7:11)

IRELAND

No. 409 (Fig. 35). It would appear that this sword underwent some damage in comparatively recent times. The swelling of the blade and the top of the hilt flanges have been filed down. It would also appear that the off centre rivet hole in the handgrip and the 2 lowermost perforations in the shoulder are due to subsequent interference.

The handgrip terminates in a finial that splays widely to both sides and is slightly hollowed. In addition to the doubtful example 3 rivet holes, containing their rivets, occupy a central position. The rivets average 4mm. in diameter, they have clenched heads, and increase in length from top downwards. The upper rivet is 23.5mm. long, the middle 22mm. and the lower example 24.5mm. At the lowermost perforation the grip is slightly bent. The flanges continue on to the shoulder where they rapidly contract and disappear. One of the tips of the shoulder has been filed off. In all it contains 8 perforations, 3 of these being running parallel to the shoulders on each side; 5 have their rivets in position. These also average 4mm. in diameter, they are ~~in~~clenched but both ends have been cut off obliquely. They diminish in length from top to bottom. The upper rivet is 21mm. long, the middle 20mm. and the bottom 19mm. There is a ricasso and extending across the blade at the bottom of the ricasso, in a lunate shape, is what appears to be a mark left by the top of a scabbard, or base of handle,

but is difficult to determine if this is ancient or modern. The blade is smooth and is a pointed oval in section. A slight ridge runs parallel to the edges which have been drawn out from that point.

620	49	5
111	42	23 ozs.

N.M.I. (No Reg. No.) (CC.7:5)

IRELAND

No. 410 (Fig. 35). The pommel end of the handgrip is wanting. The latter has slight flanges and in the centre there are 2 rivet holes and a depression for a 3rd at the fractured end. The thickness of the blade continues in the form of a flattened swelling up in the lowermost rivet hole, it then bifurcates and continues up the grip, on each side of the perforations, in the form of two raised ridges. The tip of the shoulder on the right side has been broken off. It contains the unperforated depressions for 6 rivet holes. There is a ricasso. The blade is of flat lens section and a slight ridge follows the outline of the edge. Its surface has been well smoothened down and it is greyish brown in colour. The extreme tip is missing.

560	-	5
-	4	--

N.M.I. (No Reg. No.) (CC.7:5)

(Talbot de Malahide)
292 No. B. 285.

IRELAND

No. 411 (Fig. 35). The handgrip possesses very slight flanges, or perhaps more specifically a thickening of the edge. The swelling of the blade continues up to the lowermost rivet hole, it then bifurcates and continues up on each side of the three perforations in the form of

slightly raised ridges. The shoulder contains 4 perforations. On both sides the tips are wanting and consequently the outer casing of the bottom MOST HOLES. The blade is plain and narrow. The surface is pitted and it has been broken across at about midpoint. This has been repaired in a very crude manner and looks modern. It is flat oval in section and the tip is wanting.

456	-	4.5
98	26	-

N.M.I. (No Reg. No.) (CC.7:7)

IRELAND

No. 412 (Fig. 35). The upper portion of the handgrip is missing. The surviving stump contains very slight flanges and there are the remains of a rivet hole at the fractured end, just below this a swelling that extends out of the base of the blade bifurcates. The shoulder contains 4 rivet holes. Underneath on the sinister side the edge is slightly damaged. The blade is brownish in colour and is flat oval in section. The surface is quite smooth and this shows a flattened midrib flanked on each side by a shallow groove and a slight ridge towards the edges. It is slightly bent at the tip.

455	41	6
-	33	-

N.M.I. (No Reg. No.) CC.7:6

IRELAND

No. 413 (Fig. 35). This sword has suffered considerable damage, both the point and pommel end being wanting. In addition the blade, which has a green patination, has been broken at about the centre point and the edges are serrated. The shoulders contain 4 rivet holes and depressions for 2 more that have not been fully perforated. The handgrip,

which has been cast on at the point of mergence with the shoulder, has very rudamentary flanges and two rivet holes, but it has been broken off at the uppermost perforation. The blade is flat oval in section and possesses a ricasso. In places a slight ridge is discernible running parallel to the edge.

430	44	8
-	28	-

N.M.I. (No Reg. No.) (CC.7:11)

IRELAND

No. 414 (Fig. 35). Lower portion of featureless blade. Its surface is quite smooth and free from accretion, but the edges have suffered some slight damage. In section it is a flat oval.

302	-	6
-	35	-

N.M.I. 292 (CC.7:11)

IRELAND

No. 415 (Fig. 35). Featureless lower portion of blade. In section it assumes a somewhat flattened and drawn out lozenge shape. The edges are blunt and a blackish patina covers the surface.

225	-	7
-	36	-

N.M.I. 155 (CC.7:11)

IRELAND

No. 416 (Fig. 35).

(a) Middle part of flangeless handgrip. It is 35mm. in length. The remains of a rivet hole are visible at both of the fractured ends. Between these there is a further

perforation and beside this a small hole that appears to be modern. In the centre a groove runs up each face.

(b) Straight ended pommel ~~tang~~ TERMINAL.

(c) Straight ended pommel ~~tang~~. TERMINAL.

N.M.I. — (CC.7:11)

IRELAND

No. 417 (Fig. 35). In good state of preservation and complete. The handgrip is flangeless. There are 2 perforations present and a slight ridge runs up the length of the grip on each side of these. The shoulder contains 2 rivet holes and on the sinister side there is a slight ricasso. The blade is of flat oval section and a slight ridge runs parallel to the edges which are drawn out from that point.

625	49	5
105	40	21½ ozs.

N.M.A.Scot., D.M.I.

IRELAND

No. 418 (Fig. 36). The handgrip is wanting. The shoulder is straight sided, it contains 3 rivet holes, 2 on the left and 1 on the right side, and the unperforated depressions for 3 more. There is a ricasso. The surface of the blade is smooth and is largely free from patination. The blade is flat oval in section and a low ridge runs parallel to the edges which are drawn out from that point. These are now blunt as is the tip.

540	51	7
-	42	-

N.M.A.Scot., D.M.3

IRELAND

No. 419 (Fig. 36). Only a stump of the handgrip survives. This has slight flanges that continue down the shoulders for a short distance and there are the remains of a rivet hole in the fractured end. The shoulder has slight 'beaks', it contains 2 rivet holes bored, to some extent, in hour glass fashion, and the unperforated depressions for 2 more. Underneath there is a straight sided ricasso. The blade is flat oval in section and is bent slightly. A low ridge runs parallel to the edges. The surface is reasonably smooth and is darkish in colour.

550	48	6
-	38	-

N.M.A.Scot., D.M.4

IRELAND

No. 420 (Fig. 36). The upper portion of the handgrip is wanting. What survives is flangeless, it contains a rivet hole and the remains of another at the fractured end. There are a number of tiny blow holes present in the metal, this weakness may account for the break. The shoulders contain 2 rivet holes and the unperforated depressions for 4 more. There is a ricasso. The blade is flat oval in section and a slight ridge runs parallel to the edges. The surface is smooth.

570	51	5
-	42	-

N.M.A.Scot., D.M.5

IRELAND

No. 421 (Fig. 36). The handgrip and portion of the shoulder is wanting. The shoulder contains 3 perforations, underneath it cuts away rapidly into the blade. The latter is flat oval in section and the surface has not been

smoothened down very carefully. In places a slight ridge can be discerned running parallel to the edges. These are gapped and have been cut back to the ridge in most instances.

530	49	5
-	35	-

N.M.A.Scot., D.M.6

IRELAND

No. 422 (Fig. 36). The handgrip is wanting. The shoulder contains 2 large rivet holes and the depression for 4 more. Underneath a slight indentation in the sides may be the result of modern damage. The blade is of flat oval section. The surface is reasonably smooth and at the hilt end a low ridge runs parallel to the edges on each side. At its widest part portion of the edge on the right side has been cut back slightly.

515	49	4
-	38	-

N.M.A.Scot., D.M.7

IRELAND

No. 423 (Fig. 36). This sword has suffered some injury, only a stump of the handgrip, which possessed slight flanges, survives and the shoulder has been badly damaged. It would appear that the shoulder was straight sided and possessed a total of 6 perforations, but the outer casing of the 2 lowermost examples on each side has been broken off. There is a slight ricasso underneath but that on the sinister has been damaged. The blade is flat oval in section. Its surface is reasonably smooth and is largely free from patination or discolouration of any kind. In places a slight ridge running parallel to the edge can be discerned.

544	-	4.5
-	37	-

N.M.A.Scot., D.M.8

IRELAND

No. 424 (Fig. 36). In good state of preservation. The handgrip is flanged, it contains 2 rivet holes and between these there is the unperforated depression for a 3rd. These are flanked on each side by a rib. The shoulders tend to be slightly rounded at the tips. There are 2 perforations present and a scarcely distinguishable ricasso underneath. The surface of the blade is reasonably smooth. It shows a low flat midrib flanked by a shallow groove on each side and a ridge towards the edges.

475	38	6
105	35	14½ ozs.

N.M.A.Scot., D.M.10

IRELAND

No. 425 (Fig. 36). Most of the handgrip is wanting. From what survives it would appear to have originally possessed flanges and there are the remains of a rivet hole at the fractured end. The shoulders contain 2 rivet holes and the unperforated depressions for 2 more. The tips have been filed down giving the rounded appearance. There is a slight ricasso. The surface of the blade is reasonably smooth, it shows a low flat midrib flanked by a shallow groove and a ridge towards the edges which are drawn out from that point.

465	-	5
-	35	-

N.M.A.Scot., D.M.11

IRELAND

No. 426 (Fig. 36). In good state of preservation. The handgrip possesses 2 perforations and slight flanges that extend down the shoulder. There are 2 rivet holes in the

shoulder and a ricasso underneath. The blade is flat oval in section and a slight ridge runs parallel to the edges. The upper portion of the blade bears a thick smooth surfaced coating, but this has been removed from the lower two-thirds revealing a slightly rougher surface. The tip is wanting.

533	46	5
100	36	16½ ozs.

N.M.A.Scot., D.M.12

IRELAND

No. 427 (Fig. 36). Most of the handgrip and lower portion of the blade is wanting. The surviving stump of the grip contains low but strong flanges and there are the remains of a rivet hole in the fractured end. There are 5 perforations in the straight sided shoulder and the unperforated depression for another. Underneath there is a slight ricasso. The surface of the blade is smooth, it is flat oval in section and the edges are bevelled.

284	53	6
-	40	-

N.M.A.Scot., D.M.19

IRELAND

No. 428 (Fig. 36). Lower portion of blade, pointed oval in section and with bevelled edges. On the inside a very slight rib occurs. The surface is smooth and the extreme tip is wanting.

205	-	5
-	42	-

N.M.A.Scot., D.M.20

IRELAND

No. 429 (Fig. 36). The hilt and portion of blade only. The handgrip is flanged and there are 2 counter sunk rivet holes present. In the shoulder there are 2 perforations and a ricasso underneath. The surface of the surviving portion of the blade is smooth and its edges are bevelled. In section it is flat oval.

180	42	6
99	22	-

N.M.A.Scot., D.M.21

IRELAND

No. 430 (Fig. 36). Roughly the middle portion of blade. From a minimum width of 9mm. where it is 7mm. thick, the fragment widens to 43mm. At that point it is 5mm. thick, the surface is smooth and is blackish in colour; the edges are bevelled.

Length 183mm. N.M.A.Scot., D.M.22

IRELAND

No. 431 (Fig. 36). Lower portion of blade. Part of the surface is smooth but in places there is a greenish patination. A slight ridge runs parallel to the edges which have suffered some damage and are now quite blunt. The tip is also wanting. In section the fragment is flat oval.

Length 14mm. N.M.A.Scot., D.M.24

IRELAND

No. 432 (Fig. 36). Lower portion of almost parallel sided blade. It is elliptical in section, the surface contains slight pits but it is largely free from accretion of any kind. The edges appear to have been bevelled.

323 - 5

\- 32 -

N.M.A.Scot., D.M.25

IRELAND

No. 433 (Fig. 36). Lower portion of blade that is slightly leafshaped in outline. Its surface is reasonably smooth and shows a rounded midrib flanked by a shallow grooving and a ridge towards the edges which are bevelled.

220 - 7

\- 32 -

N.M.A.Scot., D.M.26

IRELAND

No. 434 (Fig. 36). Fragment of blade. It is flat oval in section and narrows from a width of 45mm. where it is 5mm. thick, to 36mm. The edges are bevelled.

Length 100mm. N.M.A.Scot., D.M.28

IRELAND

No. 435 (Fig. 36). Lower portion of blade. From the fractured end it widens slightly to reach a maximum width of 33mm. at about its present midpoint. The fragment is elliptical in section and its surface is rough.

Length 230mm. N.M.A.Scot., D.M.29

IRELAND

No. 436 (Fig. 36). Lower portion of blade. It is almost parallel sided but does tend to widen slightly to reach a maximum width of 29mm. at its present midpoint. The surface is rough and pitted, the edges are blunt and

the tip has been ground down. In section the fragment is flat oval.

Length 222mm. N.M.A.Scot., D.M.31

IRELAND

No. 437 (Fig. 36). Only the hilt and upper portion of the blade survives. The handgrip possesses 2 perforations, each with a rivet 10mm. long by 5mm. in diameter in position. On each side of these a ridge runs up the grip. The tip of the terminal on the sinister side is wanting. The shoulder contains 2 perforations. A sémicircular curve across the widest part of the shoulder would appear to indicate the lower limit of the handle. The surface of the surviving portion of the blade is pitted. It is elliptical in section and the edges are blunt.

198	45	6
105	22	-

N.M.A.Scot., D.M.32

IRELAND

No. 438 (Fig. 36). Lower portion of blade. The surface is quite rough and the edges are damaged. In section the blade pertains to a flattened oval, it reaches a maximum width of 28mm. at about its present midpoint where it is 5mm. thick.

Length 326mm. N.M.A.Scot., D.M.33

IRELAND

No. 439 (Fig. 37). Tip of blade. It widens from a width of 29mm. at the fracture to 33mm. at about its present midpoint where it is 5mm. thick. The point has been ground down. In section the fragment is flat oval and the surface is smooth and clean.

Length 148mm. N.M.A.Scot., D.K.36

IRELAND

No. 440 (Fig. 37). Central portion of handgrip. It is flangeless but a slight thickening of the edges does occur. There is a rivet hole present and portion of another at the fractured end. Between these there is the unperforated depression for a 3rd.

Length 45mm.
Max. width 23mm.

N.M.A.Scot., - (Bell Collection)

IRELAND

No. 441 (Fig. 37). Only faint signs of flanges on the handgrip. There are 2 rivet holes present and it terminates in a more or less T shaped finial. The shoulder contains 2 perforations and there is a ricasso underneath. The blade is elliptical in section, it has been broken at two places and the tip has also become detached and is now wanting. The surface bears a brown patina that has been worn off to a greyish brown mottled colour.
Not examined, description and illustration based on B.A. Card Catalogue of Bronzes. It may be a relation, if not an exact version, of Class 6A swords.

438	41	7
100	32	316 gms.

Bankfield Mus. Halifax No.22 (A.W. 78)

IRELAND

No. 442 (Fig. 37). In excellent state of preservation. The handgrip is flanged and these extend down the shoulder to near the tips. On each side of the 2 perforations a ridge occurs. The shoulder contains 2 holes and the edge of one of the ricassi bears a nick. The blade is flat oval in section, the edges are bevelled and a ridge runs along the inner face. This sword formed part of the Bell

Collection in the National Museum of Antiquities of Scotland by whom it was presented to the Peabody Museum, Harvard University where it is now exhibited in Room 42, case 42.

639	53	6
105	44	26⅜ ozs. (.80kg.)

Peabody Mus. Catalogue No.
58-56-40/6981

IRELAND

No. 443 (Fig. 37). Hilt and part of blade. The handgrip is flanked, it contains 2 large and 1 small rivet hole and terminates in a straight ended projection to each side. The shoulder contains 3 perforations and the depressions for 3 more. The surviving portion of the blade is uniformly rounded.
Not examined, description and illustration based on B.A. Card Catalogue of Bronzes.

177	41.5	-
92	-	-

City Art Gallery Leeds.
Cat. No. 252

IRELAND

No. 444 (Fig. 37). The handgrip has been cast on at the junction with the shoulder. There is a perforation containing a rivet present and the depression for another. From under the finial the grip widens gradually to the shoulder. There are 3 holes in the shoulder and the depression for a 4th. Underneath there is a ricasso. The surface of the blade is smooth and it bears a brown patina. It is elliptical and the edges have been drawn out.
Not examined, description and illustration based on B.A.Card

Catalogue of Bronzes.

485	47	6
94	31	462 gms.

City Art Gallery, Leeds No.255

IRELAND

No. 445 (Fig. 37). In excellent state of preservation. The handgrip is flanged, it contains 3 rivet holes and on each side of these a slight ridge occurs. There are 6 perforations in the shoulder and a ricasso underneath. The blade is bright brown in colour and its surface is smooth. The edges are bevelled and on its inside a low ridge occurs.

568	51	6
102	45	-

Limerick Mus. No.128

Bibliography:

Herbert, Robert, "The City of Limerick Public Library and Museum." N.M.A.J., 2(1940-1), 84

PROBABLY IRELAND

No. 446 (Fig. 37). The pommel end of the handgrip is wanting. The surviving portion contains a rivet hole and there are the remains of another at the fractured end. There are 2 perforations in the shoulder and a ricasso underneath. It appears that the blade was repaired at a point 225mm. from the present tip, but if this is so there is no metal spread and the job is technically perfect. The blade shows a central rounded swelling and a ridge parallel to the edge. The tip is missing.

434	45	6
-	46	-

B.M. 63. 1-22.117

IRELAND

No. 447 (Fig. 37). The pommel end of the handgrip is wanting. The surviving portion is almost parallel sided, it contains slight flanges and 3 counter-sunk rivet holes. The surface is somewhat rough. The shoulder contains 6 perforations and there is a ricasso. The surface of the heavy blade is smooth. It is elliptical in section and a low ridge runs parallel to the edges which are blunt.

572	48	8
-	44	30 ozs.

B.M. 78.11-1, 202.

IRELAND

No. 448 (Fig. 37). Handgrip contains 1 rivet hole, The surface is rough and from near the base two slight ridges run up the grip to converge at the perforation. At the edges, the grip thickens slightly. The tips of the shoulders are rounded. There are 2 perforations present and a ricasso underneath. The surface of the blade is smooth and hard and shows a rounded central swelling that is flanked on each side by a slight groove and a low ridge towards the edge.

503	49	7
102	35	17 ozs.

B.M. (No Reg. No.)

IRELAND

No. 449 (Fig. 37). Strong weapon in good state of preservation and with darkish patination. The handgrip is flanged, there are 3 rivet holes present and from the bottom of the lower of these and extending to end on each side two raised ridges occur. On the edge of the grip the mould joint is clearly visible. The shoulder contains 6 perforations and there is a well formed ricasso. The blade

possesses a central flattened swelling, this is flanked on each side by a hollow and a ridge parallel to the edge.

641	53	6
105	42	27½ ozs.

Hornieman Mus. London.

IRELAND

No. 450 (Fig. 37). Only part of hilt and blade of this sword survives. The surviving portion of the handgrip thickens slightly at the edges. It contains a rivet hole and evidence for another at the fractured end. There are 4 perforations in the shoulder but the outer casing of that on the dexter side, and consequently the shoulder tip has been broken off. The surface of the blade stump is pitted and bears a black patina. The edges have been damaged.

Length 200m. Newbury Museum.

Bibliography:

Coghlan, H.H.: "Studies of British and Irish Celts: First Series" Mann, 53,(1953), 99.

IRELAND

No. 451 (Fig. 37). Lower portion of blade. It is in a bad state of preservation, the edges have suffered considerable damage and are now blunt. The surface is dark in colour, it shows a rounded midrib that is flanked on each side by a shallow groove. The extreme tip is wanting.

Present length 230mm. M.R.A. Newcastle-upon-Tyne, No.78

IRELAND

No. 452 (Fig. 37). Lower portion of blade that appears to have been broken off by bending. From a width of 27mm. at the fractured end it swells very slightly before narrowing into the point. Its surface is smooth and in section it is a pointed oval. The edges are drawn out a little.

166 - 5
- 29 -

M.R.A. Newcastle-upon-Tyne, No.79

IRELAND

No. 453 (Fig. 37). Lower portion of blade. Its surface is dark in colour and shows a rounded midrib flanked in places by a shallow groove. The edges are damaged and the extreme tip is wanting.

216 - 5
- 32 -

M.R.A. Newcastle-upon-Tyne, No.81

IRELAND

No. 454 (Fig. 37). This sword is in an extremely bad state of preservation. Most of the surface is rough and in places bears an accretion of verdigris. The handgrip is missing, this appears to have been cast on and to have replaced an earlier example. The straight sided shoulders contain 2 perforations, but the outer casing of that on the left side has been broken off. There is a ricasso underneath. The edges of the blade are damaged and a large portion at the narrowest part has been broken away. The blade has also been broken across at about its widest part. It has been repaired rather crudely by means of overlapping both ends to the extent of 9mm. and then riveting. This

results in a total loss of 18mm. to the blade. Its surface shows a flattened midrib flanked by a shallow groove and a low ridge towards the edges.

367	45	6
-	38	-

M.R.A. Newcastle-upon-Tyne
No. 84

IRELAND

No. 455 (Fig. 37). The handgrip is wanting. The shoulder contains 4 rivet holes and there are the remains of 2 more at the fractured end, giving a total of 3 holes in each shoulder wing. The 4 lower holes contain their rivets, these average 14mm. in length and 4mm. in diameter. There is evidence for a slight ricasso. The blade is flat oval in section and a slight ridge runs parallel to the edges. The surface of the upper third is quite rough.

496	47	6
-	37	-

M.R.A. Newcastle-upon-Tyne
No. 86

IRELAND

No. 456 (Fig. 37). The handgrip is wanting. The shoulder has suffered some damage and it contains two perforations. The blade is lenticular in section and in places a very slight ridge runs parallel to the edges.

416	-	5
-	29	-

Ashm. Oxon. 1911: 604

IRELAND ~~ASH~~

No. 457 (Fig. 38). The handgrip is almost parallel sided. It contains a rivet hole and there is the depression

for another at the base. At the edges a slight thickening occurs. The shoulder contains 2 perforations and there is a ricasso. The surface of the blade is somewhat rough and it is grey greenish in colour. It shows a central rounded swelling with a wide and shallow groove on each side and a ridge along the edges.

492	46	6
105	34	17 ozs.

Ashm. Oxon. 1927: 2889

IRELAND

No. 458 (Fig. 38). Well preserved with 3 holes in the flanged handgrip and 6 in the shoulder. The surface of the shoulder is smooth, a feature that may be due to the handle plates. The blade is elliptical in section and there is a ricasso.

599	5	6
110	36	-

Ash. Oxon. 1917: 2890

IRELAND

No. 459 (Fig. 38). Plain handgrip that contains one rivet hole; there are two more in the shoulder and a ricasso underneath. Nearly all the blade is wanting.

173	43	-
101	-	-

Ash. Oxon. 1927: 2894

IRELAND

No. 460 (Fig. 38). This sword has been broken at four different places, twice at junction of handgrip and shoulder and twice along the blade. The latter is dark in

colour and not very smooth. It is flat oval in section and the edges have been drawn out. The handgrip is almost parallel sided and it is flanged. There are 2 rivet holes present and 6 in the shoulder.

493	53	5
102	44	19 ozs.

P.R. Oxon. 1491 : 1500

IRELAND

No. 461 (Fig. 38). Only a stump of the handgrip now survives. The shoulder is badly damaged, but nevertheless the remains of 2 rivet holes are visible. The blade is dark in colour and flat oval in section. The surface of the upper portion is rough while the lower is smooth. A slight ridge runs parallel to the edges.

535	-	4
-	38	-

P.R. Oxon. 1502

IRELAND

No. 462 (Fig. 38). Hilt end almost entirely missing. The surface of the blade is reasonably smooth, it bears a greenish patination through which, in places, the bronze shows. There is evidence for a slight ridge running parallel to the edges, which are now quite blunt. The blade is flatish in section and the extreme tip is wanting.

516	-	5
-	39	-

P.R. Oxon. 1505

IRELAND

No. 463 (Fig. 38). Lower portion of blade wanting. The surface of the surviving part is rough and the edges have been badly damaged. There are 2 rivet holes in the handgrip and a ridge on each side. The end of the terminal is rounded. The shoulder contains 4 perforations and there is a ricasso.

270	43	-
96	-	-

P.R. Oxon. 1506: 2618

IRELAND

No. 464 (Fig. 38). Lower part of blade with pitted surface. The fractured end has been thinned and it contains 2 small countersunk holes, perhaps modern. In section the blade is a pointed oval and there is a slight ridge running parallel to the edges which are now quite blunt.

320	-	6
-	43	-

P.R. Oxon.

IRELAND

No. 465 (Fig. 38). In bad state of preservation. The surface of the blade is quite rough, it is flat oval in section and in places a slight ridge can be discerned running parallel to the edges which have been damaged. The tip and adjoining part of the blade is wanting. There is a slight ricasso. The handgrip is plain.

On each side part of the hilt plates have survived, but these have been severely altered ~~by oxid~~ and it is difficult to state the nature of the material. The plates were held in position by a total of 7 rivets, 3 on the grip and 4 on the shoulder. The 2 lower holes in the grip still retain their rivets averaging 20 mm in length. All

rivets have survived in the shoulder. The upper pair are 17 mm long and the lower 13 mm. All have cupped heads.

543	44	6
104	43	-

Hunt Coll. No. 95.

CO. ARMAGH — Tynan Abbey

No. 466 (Fig. 38). Only a stump of the handgrip survives, this is flanged and these continue down the shoulder. There are the remains of a rivet hole in the fractured end and two more in the shoulder. There is a ricasso. The blade has been bent slightly and a ridge runs parallel to the edges. In section the blade is flat oval.

Found in bed of lake in the grounds of Tynan Abbey, Co. Armagh.

500	37	6
-	32	-

Private - Sir Norman Strong, Tynan Abbey, Co. Armagh.

IRELAND

No. 467 (Fig. 38). Portion of blade of flat oval section. It reaches its maximum width at 27 mm at its present midpoint.

Length 265 mm — Swan Collection.

IRELAND

No. 468 (Fig. 38). The grip contains slight flangs and the pommel end has been cast on. There is a hole retaining the stump of a rivet present and 4 further perforations in the shoulder, two of these also retain rivet stumps. The blade is elliptical in section and the edges are bevelled.

Below the widest portion a hole has been filled. Over the surface patches of iron oxide occur.

468	42	5
93	30	-

Swan Collection.

IRELAND

No. 469 (Fig. 38). Middle part of blade tapering slightly to reach fractured end. It has been broken at midpoint and the edges are damaged. In section the fragment is a pointed oval.

Whereabouts unknown, description and illustration based on B. A. Card Catalogue of bronzes.

269	-	5.5
-	26	-

Bibliography:

Catalogue of the Knowles Collection (1924). Lot 658.

IRELAND

No. 470 (Fig. 38). Only the stump of the hilt, the damaged shoulder, and a small part of the adjoining blade of this sword survives.

Whereabouts unknown, description and illustration based on B. A. Card Catalogue of Bronzes.

Length 141 m

Bibliography:

Catalogue of the Knowles Collection (1924). Lot 658.

CLASS 5A are small plain swords and are degenerate examples of CLASS 5.

CO. ANTRIM LISBURN

No. 471 (Fig. 38). The pommel end of the handgrip is wanting. The surviving portion contains 2 rivet holes and averages 18mm. in width but it narrows rapidly to 16mm. at the junction with the shoulder. The grip is flanged or more specifically a gradual thickening of the web towards the edges occur. The shoulder contains 2 perforations. The blade widens but very slightly. It is elliptical in section and the surface is reasonably smooth. The extreme tip is wanting.

464 33 5

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M.M.B. 188: 1913

Bibliography:

Catalogue of the Day Collection, (1913), Lot 308

CO. CAVAN nr. THORNHILL
KILLINA

No. 472 (Fig. 38). The handgrip is plain, it contains 2 rivet holes and widens gradually from end to joint with the shoulder. At this point the grip has been cast on. This has not been executed very effectively and there are numerous airholes present. There are 2 holes in the shoulder. The blade is narrow and featureless and is elliptical in section. The surface is reasonably smooth and free from patination.

436 41 5

92 24 -

Ash. Oxon. 1927: 2888

CO. CLARE KNOCKNALAPPA

No. 473 (Fig. 38). Complete but in a bad state of preservation. There is an accretion of sediment over most of the surface and this partially blocks up the rivet hole on the sinister side of the shoulder. The edges towards the extreme tip are badly damaged. The handgrip is flanged and these continue down the shoulder. It contains 2 rivet holes perforated in a pseudo hour glass fashion and the terminal is rounded at the top. The shoulders are straight or perhaps very slightly hollowed. There are 2 perforations present and a slight ricasso underneath. In places a very low ridge runs parallel to the blade edge.

405	35	5
93	27	8 ozs.

N.M.I. 1936: 1974 (C.19:2)

<u>Bibliography</u>:

Childe, V. Gordon, <u>Prehistoric Communities of the British Isles</u>, (1940). Fig. 76:1.

Mahr, Adolf: "New Aspects and Problems in Irish Prehistory" <u>P.P.S.</u>, 3,(1937), Fig. 25,:1

Raftery, Joseph: "Knocknalappa Crannog, Co. Clare" <u>N.M.A.J.</u>, 3(1942), 62 Fig. 3:2

CO. MAYO

No. 474 (Fig. 39). The pommel end of the handgrip is wanting. The surviving part has slight flanges, There are the remains of a rivet hole at the fractured end and a depression for another at the present midpoint. The shoulders are somewhat rounded at the tips. They contain 2 rivet perforations, and a ricasso. A roughening of the metal at about the narrowest part of the blade does suggest a join but this does not appear to be the case. The surface is smooth and shows a rounded, but flattened midrib flanked by a very shallow groove and a low ridge to the edges. The latter have suffered some damage and the extreme

tip of the point is missing.

375	33	5
-	26	-

N.M.I. W.30 (CC.7:7)

CO. ROSCOMMON nr. ATHLONE BOG

No. 475 (Fig. 39). The pommel end has been cast on, at the end this projects slightly on one side but has been broken off at the other. The original portion of the grip has low flanges and a solidary perforation. A spread of metal at the base suggests that a cast on also took place at that point, but it is difficult to be certain about this. The shoulder contains 2 rivet holes and there is a slight ricasso. The blade has been broken across at the narrowest point below the shoulder but it has been repaired, perhaps in modern times. In section the blade is elliptical and the surface is dark in colour. The edges are drawn out and have suffered some damage.

437	39	5
98	23	10 ozs.

B.M. 63, 1-22, 116.

CO. ROSCOMMON CANBO

No. 476 (Fig. 39). The handgrip has been broken off a short distance above the junction with the shoulder, but a new one was cast on. Before running in the metal the receiving stump was narrowed down and notched. Due to a weakness in the design the work was not executed perfectly, there are tiny air holes present all over the surface, and the grip again becomes detached. The new grip swells gently from both ends to reach a maximum width of 29 mm at about midpoint. It was intended to have 2 perforations but only one of these has been fully bored. From the join

up to the lower hole, where they converge, two slight ridges occur, perhaps intended by the smith for strengthening. At the edges a slight thickening occurs and the end terminates in a hollowed projection to each side. The shoulder contains 6 rivet holes. The blade is narrow and is almost parallel sided. It is elliptical in section, but otherwise is featureless.

414	41	6
105	25	11½ ozs.

Bibliography:

Mahr, Adolf, "New Aspects and Problems in Irish Prehistory" P.P.S., 3, (1937), 384 Fig. 4: 3. Report N.M.I 1933-4 Plate 5, No. 4.

IRELAND

No. 477 (Fig. 39). The pommel end of the handgrip is wanting. What survives possesses slight flanges and 2 rivet holes while there are the remains of a 3rd at the broken end. The shoulder contains 3 perforations but one of these may be the result of subsequent interference. There is evidence for a slight ricasso. The surface of the blade has been cleaned, but it is uneven and pitted, this may be the result of corrosion. In section the blade is elliptical.

393	33	5
-	21	-

M.M.B. 211: 1955

Perhaps IRELAND

No. 478 (Fig. 39). This weapon has been badly cast. The handgrip broke off at short distance above its point of junction with the shoulder. It has been cast on but the work was not executed very effectively and there are

a number of blow holes present. It was intended to have 2 holes in the grip. The shoulder contains 2 large holes but the outer casing of one of these and consequently the tip of the shoulder has been broken off. There is a slight ricasso. The blade is elliptical in section with a groove running parallel to the edge. The point has been rounded.

350	-	4
-	23	-

B.M. (No Reg. No. in Box 643 labelled "Irish bronze swords".)

IRELAND ? EDENDERRY.

No. 479 (Fig. 39). Plain handgrip with 2 rivet holes and straight ended terminal. 2 perforations in shoulder and slight ricasso. The blade has been broken across at the narrowest part and the edges have been damaged. The centre of the blade is occupied by a rounded swelling, this is flanked on each side by a groove and a ridge along the edges.

420	36	5
93	29	10½ ozs.

U.M.A. Cantab. M.C. 99: 187.

IRELAND

No. 480 (Fig. 39). This is an insignificant looking weapon and has suffered considerable damage. Nearly all the hand-grip is wanting and the blade has been broken at 2 places; these have been affixed by modern solder. Most of the surface is rough and contains cracks, but there are patches of dark patination present which give a smooth effect. The shoulders contain 2 rivet holes. Originally they were probably straight sided but their tips have been damaged and the outer casing of one of the perforations torn off,

they now assume the form of a swelling demarcating handgrip from blade. The latter widens towards midpoint, it is flat oval in section and the edges are blunt, the extreme tip is missing.

387	-	4.5
-	24	-

N.M.I. W.88 (11:7:7)

IRELAND

No. 481 (Fig. 39). The handgrip is wanting. The shoulder contains 2 perforations and the remains of 2 more at the fractured end. The blade has been broken in 2 places but was subsequently repaired. It is elliptical in section and the edges have been drawn out. The tip is missing.

Not examined, description and illustration based on B.A. Card Catalogue of Bronzes.

335	40	6
-	24	-

Mus. Leeds Phil. & Literary Society.

Class 5B swords have a slot in the centre of the grip in place of the rivet holes.

CO. CAVAN Nr. KILLYKEEN

No. 482 (Fig. 39). This sword has suffered considerable damage. The pommel end of the handgrip has become detached and the tip of the blade is wanting. The edges have also been badly damaged and over part of the surface there is an accretion of iron oxide. The flangeless grip contains 2 large perforations or perhaps slots of a sort in the centre. The upper, and larger, is somewhat oval in shape and its

edges are irregular. There are 4 holes and the unperforated depression for 2 more in the shoulder and a ricasso underneath. The blade is flat oval in section and originally appears to have been reasonably smooth. A slight ridge runs parallel to the edges. The extreme tip is wanting.

520	48	7.5
105	40	19 ozs.

N.M.I. 1937: 2798 (C.28:4)

CO. FERMANAGH — Bar. LURG

No. 483 (Fig. 39). This sword is in a good state of preservation. The handgrip is flangeless and increases in width from pommel end to shoulder. Only the upper part of the slot has been bored through. The shoulder also possesses slots, but their execution has not been carried out with neatness. There is a very slight ricasso. The blade is of flat lens section and a ridge runs parallel to the edge. The surface has been well smoothed down, and apart from a small portion, it bears a yellowish brown colour.

621	50	7
105	45	28 ozs.

N.M.I. 1906: 221(1010) (CC.7:5)

CO. MAYO — CLOGHAN CASTLE

No. 484 (Fig. 39). The handgrip has slight flanges. At about midpoint the sides of the slot are indented in a manner which suggests that it held a rivet. The grip has been cast on at the point of mergence from the shoulder. The latter contains 2 perforations. The blade is flat oval in section. It shows on the surface a raised central swelling flanked by a shallow groove and a slight bevel towards the edge. The tip is wanting.

400	39	4.5
99	29	-

N.M.I. R.1653 (CC.7:7)

CO. TIPPERARY

LEIGH BOG
(TWO-MILE-BORRIS)

No. 485 (Fig. 39). The handgrip has been broken off just at the point of mergence from the shoulder. It was repaired in antiquity and a spread of metal now occurs at the mended point. In addition, so as to make the join stronger, the smith provided in the mould for two pairs of strengthening ribs which run a little way past the joint down the hilt. The grip is flanged. The shoulder contains 4 rivet holes, and there is a ricasso. The blade is flat oval in section. It has been well smoothened down and a slight ridge runs parallel to the edges.

468	45	8
98	40	16 ozs.

N.M.I. 1894: 12 (CC.7:6)

CO. TYRONE

ROUGHAN

No. 486 (Fig. 39). This sword is in a bad state of preservation. The handgrip is flangeless and on the side the join of the mould is clearly visible. The shoulder is short. It contains a small perforation on the right side and on the other a slight depression indicates that it was intended to have another on that side. Underneath there is a ricasso. The surface of the hilt and adjoining portion of the blade is quite rough.

The blade was broken off at about the narrowest part. What appears to be an entirely new piece of blade has been affixed, subsequent to finding it would appear. This overlaps the original part by 25mm. and is attached by means of 4 rivets set in a diamond shape. This portion is quite crude, its surface is uneven and irregular and the edges are gapped and blunt. It is flat oval in section and the extreme tip is wanting.

396	42	5
99	33	-

Armagh Mus.

CO. TYRONE

No. 487 (Fig. 39). This heavy sword is in an excellent state of preservation. Strictly speaking the handgrip is flangeless but nevertheless, a gradual thickening from centre of web to edge occurs. The shoulder contains 2 large holes or almost slots. There is a ricasso. The blade is flat oval in section. Its surface is smooth and a slight ridge runs parallel to the edges. Attached label states "Found with 4 other swords in a tumulus in Co. Tyrone A.D. 1831"

665	58	8
107	48	1020 gms.

Alnwick Castle No.387

CO. TYRONE

No. 488 (Fig. 39). The handgrip has been cast on very neatly at the point of mergence from the shoulder. This grip is quite substantial and elaborate for the size of the blade. From the centre the web gradually thickens to the edges. There are 2 large perforations slot like in character present. The shoulder contains 4 perforations with irregular edges, but the outer casing of the lowermost example on the dexter side has been broken off. The blade has a slight leafshaped outline, its extreme tip is wanting and the lower portion has been affixed 71mm. up from the present point, but it is difficult to say if this is a modern or ancient repair. The surface, particularly on one side is much pitted. In section the blade is flat oval.

Stated to have been found with No. 487.

562	44	5
108	31	464.7 gms.

Alnwick Castle No.388

CLASS 5C is not a homogeneous group but is composed of swords that individually show features that suggests Hallstatt influence.

CO. ANTRIM TOOME BAR.

No. 489 (Fig. 40). A small portion of the pommel end of this sword is wanting. The handgrip possesses slight flanges and these continue down the shoulders to about half way. It contains a rivet hole and portion of another at the fractured end. The swelling of the blade becomes more pronounced in the region of the shoulder and continues up the handgrip as far as the first rivet hole. The shoulder contains 2 rivet holes, just above these portion of the hilt becomes rough and appears to have a spread of metal, which at first suggests a repair but this does not appear to be so. There is a slight ricasso. The blade is perfect and is flat oval in section. A slight ridge follows the outline of the blade about 6mm. in from the edges, which are still sharp and well preserved.

508	44	6
-	35	-

N.M.I. W.16 (CC.7:9)

CO. CLARE DRUMCULLAUN

No. 490 (Fig. 40). This sword has suffered some damage and the surface is somewhat rough. Both the pommel end of the grip and the tip of the blade are wanting. The blade is slightly bent, it is flat oval in section and a ridge runs parallel to the edges which are damaged.

The grip contains a rivet hole and the remains of another at the fractured end. A distinct swelling out of the base of the blade extends up to that point and from thence to the end, the centre is occupied by a hollow. The shoulders are slightly hollowed and contain 4 perforations. One of

these retains a thin rivet, not much more than 1mm. in diameter and 10mm. long. There is a stump in the other shoulder.

510	46	6
-	35	-

N.M.I. 1A. 52/60

CO. LAOIS

CLONEEN NORTH
or CLOSELAND

No. 491 (Fig. 40). The pommel end of the handgrip is wanting. What survives is plain, it contains a rivet 15mm. long and 2mm. in diameter in position. A swelling out of the base of the blade continues up to that point. The shoulder tends to be slightly hollowed, it has 6 perforations, 4 of which retain their rivets. The upper pair are 10mm. long and the lower 8.5mm., all average 2mm. in diameter. The blade is almost parallel sided. Its surface is reasonably smooth and it shows a broad flattened midrib drawn out at the sides to form edges.

462	50	5
-	33	-

N.M.I. P.1955: 19 (B.12:5)

IRELAND

No. 492 (Fig. 40). This sword is in a tolerable state of preservation. The handgrip possesses slight flanges. Underneath the terminal the grip is bent slightly. In the centre there is an elongated depression which contains 2 rivet holes and the unperforated hollow for a 3rd. It was intended to have 3 rivet holes in each shoulder wing, but only 1, the lowermost on the dexter side has been bored through effectively. There is a slight ricasso. The surface of the blade is smooth and the edges reasonably

sharp. It is flat oval in section and in parts the edges show evidence for having been drawn out.

580	52	7
104	37	21 ozs.

Pub. Lib. Armagh.

CO. CAVAN

No. 493 (Fig. 40). Small sword with plain handgrip that contains 3 perforations and 6 in the shoulder. The blade is grooved. The surface has been cleaned and is now a dull golden bronze in colour. It is pitted where hilt joins blade with fairly large holes also some pitting down blade and traces of dark patina evidently from a water bed.

Not examined, information from B.A. Card Catalogue.

468	42	6
100	32	-

From Ld. Farnham's Collection, sold at Sothebys, 23rd July, 1925.

CO. GALWAY INCHAGOILL (LOUGH CORRIB)

No. 494 (Fig. 40). This sword is in a tolerable state of preservation. One side of the blade bears a slight accretion of iron oxide which tends to flake off. The handgrip is flanged and these run down the shoulders fading out near the tip. It contains 1 rivet hole, with a bent rivet 18mm. in length in position, and depressions for 2 more that have not been fully perforated, although the bottom one has almost been. The swelling of the blade continues up to this point, but here it bifurcates and extends up the grip in the form of two slightly raised ridges running on each side of the rivet holes. The grip terminates in a somewhat lop-sided projection to each side. Only one of the 6 depressions in the shoulder has been fully pierced,

the bottom most on the sinister side. This contains a headless rivet 14mm. in length. The blade possesses a ricasso and is flat oval in section. The edges have suffered slight damage and a ridge follows their outline at a distance of about 8mm. in from the edge.

614	54	7
102	45	30½ ozs.

N.M.I. S.A. 1899: 68 (CC.7:10)

IRELAND

No. 495 (Fig. 40). Apart from some very slight damage to the edges this sword is in a perfect state of preservation. The handgrip possesses slight flanges, which continue down the shoulder, these in addition to rising up also project outwards. There are two rivet holes present and for the length of the grip a slight ridge runs on each side of these. In the centre of the terminal there is a small semi-circular depression. The shoulder has straight sides and possesses 4 rivet holes, 3 of which still have their slender rivets, about 2mm. in diameter, in position. These average about 11mm. in length. The blade is flat oval in section. The hilt end is terminated by a ricasso and its depth is continued round the blade by a slight ridge.

584	51	5
102	42	21 ozs.

N.M.I. 1906: 220 (CC.7:10)

CO. DONEGAL nr. ARDRA

No. 496 (Fig. 40). In good state of preservation. The handgrip is flangeless, but nevertheless, a slight thickening from centre of web to edge does occur. There are 3 rivet holes present and the area between these is hollowed out a little. In the centre of the terminal there is a small nick. The shoulder contains a total of

4 perforations, 2 on each side and the centre is occupied by a distinct inverted V shaped swelling. There is a ricasso. The blade is flat oval in section and a ridge runs parallel to the edges.

Found in clay under 6 feet of bog.

613	48	6
105	39	23 ozs.

M.M.B. 3885(6.82)

CO. TIPPERARY — Tipperary

No. 497 (Fig. 40). The handgrip possesses very slight flanges and it terminates in a largish semi-square finial that contains a perforation. There are 2 rivet holes in the grip and 4 in the shoulder. These have been particularly well drilled and the edges are very even. There are traces of black patina on hilt and a little on blade. The blade is lenticular in section and a ridge runs parallel to the edges. Near the point it is bent slightly and the extreme tip is wanting.

582.5	49	4
114	40.5	585 gms.

Royal United Services Institution, London, No.579

CO. ROSCOMMON — nr. ATHLONE

No. 498 (Fig. 40). The surface is rough throughout and is dark in colour. Towards the edges the handgrip thickens somewhat. There are 3 rivet holes present and the area between these is hollowed. The shoulder contains 5 holes and the unperforated depression for a 6th. There is a ricasso. The blade has been broken across at a point 26 ins. from the tip, but has been repaired, probably in modern times. It is lenticular in section and a very

shallow groove runs parallel to the edges. These have been damaged.

517	43	6
102	31	16¼ ozs.

B.M. 63, 1-22-115

CLASS 5D. These swords are similar to the normal CLASS 5 weapons except that they possess a T shaped terminal

CO. CARLOW GRAIGUE

No. 499 (Fig. 40). This is a strong heavy weapon, it has suffered some damage, the blade has been broken across and the edge gapped and blunted in places. The hilt possesses a total of 6 rivet holes, 2 in the shoulder, 2 in the handgrip, and 2 at the junction between shoulder and grip. The perforations in the grip and at the junction have their rivets, held fast, still in position. All average 4mm. in diameter, The upper two are 9mm. long and the lower pair 8mm. long. The grip has slight flanges or more precisely a thickening of the web. There are 2 perforations in the shoulder and a very slight ricasso. The blade is flat oval in section and in places a slight ridge runs parallel to the edge. A darkish patination covers most of the surface, this flakes off in some places revealing a bluish-green undercolour.

595	55	8
108	39	25½ ozs.

N.M.I. 1930: 518(C.3:14)

Bibliography:

Report N.M.I. 1930-31. Pl. 3: 3

CO. CLARE INCHMORE

No. 500 (Fig. 40). This sword is bent somewhat and is cracked across the plain handgrip at the lower rivet hole.

There are 2 perforations and two more in the shoulder. The blade possesses a ricasso, it is flat oval in section and a low ridge runs parallel to the edges which are drawn out, especially towards the tip, from that point. The surface has been reasonably well smoothened down and the edges are sharp.

452	46	7.5
98	33	15½ ozs.

N.M.I. 3-12-1937 (C.28:3)

CO. MEATH nr. TARA

No. 501 (Fig. 40). This sword is in a tolerable state of preservation. The handgrip contains 3 perforations and has low but strong flanges that gradually emerge out of the web. It swells gently from both ends and reaches a maximum width of 18mm. at about midpoint. At the point of junction with the shoulder there is a spread of metal over the surface suggesting that the grip had been cast on at that point, but if this is so the job is technically perfect. At the base of the spread there is a small depression on each side, these may have been intended for rivet holes. The shoulder contains 2 rivet holes, its tip have been damaged and as a result now assumes a rounded shape. The sword possesses a ricasso but this is now only visible on the right side. The blade is flat oval in section and a slight ridge runs parallel to the edge. A blackish brown patination over part of the surface gives a smooth effect, but in the places where this tends to flake away a somewhat rough under surface is revealed.

505	-	5
97	35	13 ozs.

N.M.I. 1927: 47 (C.1:12)

Bibliography:

Mahr, A.: "Recent Acquisitions of Archaeological Finds made by the National Museum, Dublin", J.R.S.A.I., 60,(1930), 75, Pl. 1, No.7

CO. ROSCOMMON KNOCKNACARROW

No. 502 (Fig. 40). The hilt of this sword is rough and was not treated very effectively after being taken out of the mould. Its surface is irregular and on the sides a ridge of metal that squeezed out between the mould joins has not been trimmed off. The handgrip is flangeless, but nevertheless, a gradual thickening from centre of web to edge does occur. There are 2 small perforations present. The shoulder contains 2 small rivet holes and there is a slight ricasso. The blade has received some polishing and the edges are reasonably sharp. Immediately under the shoulder there are numerous (?) punch marks all over the surface, which shows a low midrib flanked by a shallow grooves on each side. The remainder of the blade possesses a broad and flat swelling flanked by a shallow channel and a ridge towards the edge.

527	48	7.5
108	42	28½ ozs.

N.M.I. 1941: 332(C.24:21)

IRELAND

No. 503 (Fig. 41). The handgrip contains slight flanges and 2 rivet holes, both of which have their rivets in place. Between these there is a depression that has not been fully perforated. The shoulder contains a total of 4 rivet holes, 2 of which, on the left side, still retain their rivets. At the point of mergence of the handgrip there are two depressions, these may also have been intended for rivet holes. There is a well formed ricasso notch. The blade is grooved and bevelled, it is broken at approximately the narrowest part and the edges have suffered considerable damage. The surface is covered by a blackish patina.

486	47	7
97	29	-

N.M.I. R.372 (CC.7:11)

The following five pieces are miscellaneous weapons but within Class 5.

CO. MAYO "KILLALA"

No. 504 (Fig. 41). The surviving remains of this sword consist of two parts - the hilt and upper portion of the blade, and the part of the blade nearest the tip. If these two pieces were joined they would have had a dagger like effect, and it would therefore, appear that the middle portion is missing altogether.

Strictly speaking the hilt, which terminates in a very flat key-stone projection, is flangeless but a slight thickening towards the edges does occur. The grip expands out to form a long straight sided shoulder. Underneath there is a ricasso. The handgrip has 3 perforations for rivets, and the shoulders 3 on each side. On the side of the handgrip the mould joint is clearly visible and there is a suggestion that the grip has been cast on just at the point of mergence from the shoulder, but if this ~~be~~ is so the job has been executed perfectly. In section the blade is a flat oval and in places a light ridge running parallel to the edge is visible. The latter are very blunt and the point of the broken off portion is slightly curved.

The lower detached blade portion is 180mm. long and the tip is bent.

210	45	6
105	27	-

N.M.I. W.87 (CC.7:11)

IRELAND

No. 505 (Fig. 41). Only the hilt and part of the blade of this sword survives. The handgrip is flangeless although a thickening does occur at the edges. It contains 2 rivet holes and terminates in a sort of key-stone projection. The shoulders are straight sided, or

approaching a concave. They contain a rivet hole on each side, that on the left still retains its rivet. As the edges of the blade are badly damaged one cannot be certain if the sword possessed a ricasso but the contrary seems to be the case. The blade is elliptical in section and the surviving portion is featureless.

200	42	-
102	-	-

Both this sword and the previous examples have nearly all the features of an ordinary Class V. weapon, but in form the terminal is different. No. 504 has an unusually long shoulder.

IRELAND

No. 506 (Fig. 41). The handgrip is flanged and contains 3 perforations, while there are 6 holes in the shoulder. The lower portion of the blade is wanting, it is a flat oval in section and the edges are bevelled.

This sword with its narrow handgrip and projecting shoulders is somewhat unusual.

450	46	6
99	34	-

CO. MEATH DOWTH

No. 507 (Fig. 41). The upper portion of the handgrip is wanting. What survives has very slight flanges, or perhaps more specifically a thickening of the edge. At the base there are 2 rivet holes. The shoulder has 5 perforations, but the middle example on the right side is doubtful looking. There is a ricasso. In section the blade is a plain flattened oval. It is bright golden in

colour, the surface is smooth and shows a central swelling flanked by a shallow grooving. The edges are blunt.

457	42	7
-	33	-

N.M.I. W.55 (CC.7:6)

IRELAND

No. 508 (Fig. 41). Most of the handgrip is wanting. The surviving portion has slight flanges. It contains 2 rivet holes at the base and the thickness of the blade extends up in the shape of a narrow tongue. The shoulder contains 2 rivet perforations. There is a well formed ricasso. The blade is elliptical in section and the surface shows a central swelling in the form of a low midrib, this is flanked on each side by shallow grooving. Towards the hilt end there are slight incisions which may be mould marks.

In form both this and the previous are similar to the true Class V. swords but an unusual feature is the central projection of the ricasso.

466	44	6.5
-	33	-

N.M.I. 1881: 180 (CC.7:6)

CLASS 6. Hallstatt swords. The grip is flangeless and nearly all terminate in an 'eared' finial. The top of the shoulder is often concave and the centre is occupied by a distinct swelling. For most of its length the blade maintains a uniform width and a groove or distinct ridge runs parallel to the edge. Most examples possess a ricasso.

IRELAND

No. 509 (Fig. 41). Apart from the fact that the handgrip has been broken across at about midpoint (repaired by brass

solder in modern times) this sword is in a good state of preservation. The grip possesses slight flanges and terminates in an inverted key-stone terminal that has a perforation in the centre. There are 3 tiny rivet holes present and 2 of these have their headless rivets, 14mm. in position. The shoulder is slightly hollowed, it contains a total of 8 perforations, all of which retain their slender rivets. Apart from one exception which is reduced to a stump they average 8mm. in length. The surface of the blade is reasonably smooth and it is flat oval in section. A ridge runs round the margin of the blade. This has an abrupt inner face, but gradually slopes outwards.

658	60	7
117	38	24½ ozs.

N.M.I. W.2 (Exhibited)

Bibliography:

Evans, John: The Ancient Bronze Implements ... of Great Britain and Ireland (1881), 293, Fig. 356

Raftery, Joseph: Prehistoric Ireland (1951), Fig. 209 (left)

Wilde, William: Catalogue, 445, Fig. 319, No.2.

CO. ANTRIM GORTGOLE

No. 510 (Fig. 41). Only a stump of the handgrip survives. There are 6 rivet holes, 3 on each side, of the shoulder and a ricasso underneath. The centre is occupied by a swelling but this narrows down towards the edges to form a thin area for the rivets. The surface of the blade shows a flat midrib, the sides of which are drawn out to form the edges. The tip is wanting.

Found in the River Bann.

517	52	6
-	23	-

M.M.B. L.24. 1936

CO. ANTRIM TOOME BAR.

No. 511 (Fig. 41). This sword has suffered considerable damage, its hilt has been cast on (in two places according to Wilde) and the blade has been joined at two points, both within 1 centimeter of each other.

The shoulder contains 2 rivet holes, its sides are somewhat flat. At the point of mergence the handgrip has been cast on. It contains a rivet hole, with a rivet 20mm. in length in position, the pommel end is missing, but in the fracture traces of another rivet hole are present. The handgrip is flangeless and reaches its maximum width of 30mm. at the lower rivet hole, at that point it has again been repaired. Almost all the blade is covered with a blackish patina, which in places tends to flake off. It possesses a ricasso and in the original portion of the blade there are some air holes present. The blade is lenticular in section and a shallow groove follows its outline, at a distance of about 4mm. in from the edge.

674	58	7
-	31	-

N.M.I. W.37 (CC.7:10)

Bibliography:

Wood, Martin, W.G.: The Lake Dwellings of Ireland, (1886), 171, Pl. 37, No. 2.

CO. ANTRIM TOOME BAR.

No. 512 (Fig. 41). This sword is in a good state of preservation and is complete, although 100mm. of the lower portion of the blade has been cast on. The handgrip is approximately 4mm. in thickness and terminates in a right angled projection, the extremity of which is rough and jagged. It contains 2 rivet holes both of which have their rivets in position. Each of these is about 17mm.

in length and between them, but on one side of the hilt only is a groove. The shoulder possesses 4 rivet holes, each of which has its rivets held fast in position, some of these tend to be squarish in section. The upper pair ~~is~~ gre 15mm. in length and the lower pair 11mm. long. The blade is grooved and bevelled. There are slight incisions over most of the blade and there is a ricasso.

635	54	7
118	27	19½ ozs.

N.M.I. W.32 (CC: 7:10)

CO. ANTRIM nr. TOOME

No. 513 (Fig. 41). This sword is in perfect condition, it is golden bronze in colour and is apparently fresh from casting. The grip contains 3 rivet holes. One of the ears has been broken off, that which survives contains a perforation. There are 6 rivet holes in the shoulder and a ricasso underneath. The blade is elliptical in section and a narrow groove runs parallel to the edges. On the surface of the blade, near midpoint is a "stamp" containing an X mark.

719	60	7
116	35	-

In collection of J.P. Scott, Esq.? Cravjdun, Cullybrackey, Co. Antrim, in 1935.

CO. ANTRIM/DOWN RIVER BANN

No. 514 (Fig. 42). The handgrip is wanting. The shoulder contains 4 perforations, 2 on each side, but the outer casing of the 2 lower examples and the shoulder tips have been broken off. The blade is narrow and shows a midrib that is drawn out to form the edges. Over portion of the surface there are some accretions of iron oxide.

The tip is wanting.

436 - 7

\- 23 -

M.M.B. 104: 1951

CO. DERRY nr. COLERAINE

No. 515 (Fig. 42). This sword is in a good state of preservation. The shoulder contains 4 rivet holes, the uppermost pair of these still retain their rivets, which are approximately 14mm. in length, in position. The handgrip is slightly bent and in section assumes a suppressed S shaped profile. There are 2 perforations. It appears that the "ears" have been broken off the terminal. The blade is a flat oval in section and its edges, which are quite sharp are drawn out.

Found at the Cutts and River Bann.

680 60 6

\- 30 21 ozs.

N.M.D. W.36 (CC.7:10)

CO. CAVAN LOUGH OUGHTER

No. 516 (Fig. 42). This sword, which was found on the rocky bed of Lough Oughter, has suffered some damage and the pommel end of the hilt is wanting. Over small portions of the surface an accretion of iron oxide has accumulated and it would appear that the smoothening down of the blade was not carried out in an altogether satisfactory manner. The surviving portion of the handgrip contains 3 perforations, it is 28mm. in greatest width and 3mm. in thickness. The shoulder contains 6 rivet holes. The edges of the blade are sharp and are drawn out. The central swelling is in the form of a flattened midrib.

617 50 6

\- 26 -

N.M.I. W.33 (CC.7:10)

CO. DOWN GROOMSPORT

No. 517 (Fig. 42). Apart from a stump, the fractured end of which the remains of a rivet hole are visible, the whole of the handgrip is wanting. The shoulders contain a total of 4 perforations, the pair on the sinister side still retain their rivets. These average 2.5mm. in diameter, the uppermost example is 17mm. long and the lower 12mm. There is a ricasso underneath.

The blade has been well smoothened down and its edges are quite sharp. On the surface it shows a broad flat midrib flanked on each side by a groove. Approaching the tip the groove disappears and the edges are drawn out. In section the blade can be described as a flattened oval.

605	52	6.5
-	33	-

N.M.I. 1929: 1510 (C.2:8)

Bibliography:

Report N.M.I., 1929-30, Plate 4: 1

CO. FERMANAGH PORTORA

No. 518 (Fig. 42). Apart from a slight bending of the blade this sword is in a good state of preservation and its surface is free from accretion. The handgrip is thin and projects out very slightly to each side. It swells from both ends and reaches a maximum width of 28mm. There are 3 perforations present. The shoulder contains a total of 6 holes, 3 on each side. On the dexter side only the central hole retains its rivet, but all 3 holes on the sinister side possess rivets. These have cupped heads with slight projections in the centre. They are 3mm. in diameter and increase in length from 8mm. at the shoulder tip to 13mm. at the junction of the handgrip. The blade is narrow and is almost parallel sided. In

section it shows a flat midrib the sides of which are drawn out to form the edges.

618	51	7
105	25	16 ozs.

Dept. of Archaeology, Q.U.B.

GALWAY KEELOGUE FORD

No. 519 (Fig. 42). Apart from a small portion that is missing from the extreme tip of the blade this sword is perfect. The shoulder contains 4 rivet holes, each of which retains a square sectioned rivet with clenched heads in position. The two uppermost rivets are 13mm. in length and the two near the tip of the shoulder 9mm. long. The handgrip possesses 2 rivet holes with their rivets, of similar shape and form those in the shoulder in position, they are approximately 18mm. in length. Between these, but on one side of the grip only, there is a slight groove. The handgrip possesses very rudamentary flanges which also spread outwards in addition to upwards. Each ear of the terminal contains a rivet hole. Over the hilt at the point of mergence of the handgrip from the shoulder, there is a spread of metal. The blade is lenticular in section but has the portion near the edge drawn out. There is a ricasso.

630	55	6
118	29	17 ozs.

N.M.I. W.31 (CC.7:10)

CO. KILDARE RAHIN

No. 520 (Fig. 42). This sword has suffered considerable injury. The shoulder has been badly damaged and only the stump of the handgrip remains. From what is left it appears to have been flangeless. The blade is well

preserved and is of flat lenticular section, but the portion next the edge is slightly drawn out.

Found on hard gravel under alluvium in cutting new course for River Boyne in the townland of Rahin, Co.Kildare.

434	-	4
-	24	-

N.M.I. W.20 (CC.7:10)

CO. LIMERICK

No. 521 (Fig. 42). Apart from the fact that the handgrip is fractured this sword is in a good state of preservation. The shoulder contains 4 holes each of which has a rivet in position. These are circular in section and have clinched heads, the uppermost pair average 18mm. in length and the lower pair 12mm. in length. The handgrip contains 2 holes, a rivet, 21mm. in length, being in position in the uppermost hole. The grip is broken across at the lower rivet hole and it is very thin, about 2mm. The pommel ends are perforated. In section the blade is lenticular and a groove follows the outline of its keen edge. There is a deep ricasso notch.

When found it is stated that portion of a gold mounting was attached to the handgrip.

715	58	6
116	30	21 ozs.

N.M.I. W.38 (CC.7:10)

CO. LOUTH DERRYCRAMMAGH

No. 522 (Fig. 42). Practically the whole of the handgrip of this sword, which was found in 1847 about 3 feet under a gravel deposit in the bed of the River Glyde, is wanting. The shoulder contains 4 rivet holes, one of which, still has a rivet, 13mm. in length in position. Only the stump of the handgrip survives. The blade is

in a good state of preservation, most of its surface is covered with a blackish patina and it possesses a ricasso, just below this feature on the sinister side part of the edge of the blade has been broken off. In section it is elliptical and the edges have been drawn out.

Found at Derrycrammagh ford on the river Glyde.

600	58	7
-	26	-

N.M.I. W.35 (CC.7:10).

CO. MAYO

No. 523 (Fig. 42). In bad state of preservation. The pommel end of the handgrip is wanting and the surviving portion has been broken off at the junction with the shoulder where there are 2 rivet holes, there are 2 more in the centre of the grip and 3 in the shoulder. The surface of the blade is dark in colour and is slightly bent. The tip is wanting and the blade has been broken across at about its present midpoint.

633	55	6
-	27	-

Hornieman Museum, London.

CO. ROSCOMMON COOTEHALL

No. 524 (Fig. 42). Well preserved and perfect. The terminal ears are perforated. There are two holes in the grip and between these a shallow groove on one side. The shoulder contains 6 perforations. The centre of the blade is somewhat flat topped and the edges have been drawn out.

Found in the Boyle River at Cootehall shoal.

670	56	6
120	25	-

N.M.I. W.34

CO. ROSCOMMON DERRYMAQUIRR (LOUGH GARA)

No. 525 (Fig. 42). In places the surface is pitted and it bears an accretion of verdigris. The end of the grip is wanting, it contains 3 perforations and there are 6 in the shoulders with a ricasso beneath. The blade is flat oval in section and the edges have been drawn out.

662	60	7
-	33	-

N.M.I. E.20

CO. ROSCOMMON ROOSKAY FORD

No. 526 (Fig. 42). The pommel end of the handgrip is wanting. There are 2 holes, each containing a rivet stump present. The shoulder contains 4 perforations, but the outer casing of that at the shoulder tip and the sinister side has been broken off. The other 3 retain rivet stumps. In section the blade is elliptical, its surface is slightly rough and it swells gently towards the middle.

642	38	5
-	26	-

Glasgow M. and A.G. 1902-73 k.j.

CO. ROSCOMMON TUMNA

No. 527 (Fig. 42). Well preserved and the surface is largely free from patination. One of the terminal wings contains a perforation, there is another in the grip and 2 in the shoulder. The pommel end of the grip has been cast on. The blade possesses a flattened central swelling, on each side of this a shallow groove runs parallel to the edges which are bevelled. There is a ricasso.

749	55	7
120	33	-

N.M.I. W.39

Wilde states that this sword was found at "Tumna" on the Boyle Water, Co. Roscommon in the same townland with the hollow golden balls of which six are in the Academy's Collection."

CO. TIPPERARY BOG OF CULLEN

No. 528 (Fig. 42). The terminal is square and contains a perforation, there are 2 in the grip, that may be flanged, and a further two in the shoulder that has a ricasso underneath. The blade has been broken a short distance below the shoulder.

667	60	-
127	48	-
		-

The whereabouts of this and the next example are not known. Both were found about 1784 in the Bog of Cullen, a bog in which it is alleged about twenty bronze swords and forty fragments were found at different times. When found one of these swords is stated to have had a thin piece of gold attached to the grip. The description and illustration of both is based on Pownall's article.

Bibliography:

Governor Pownall: An Account of Some Irish Antiquities, Arch., 3(1775), 355, 362, Pl. 19.

CO. TIPPERARY BOG OF CULLEN

No. 529 (Fig. 43). The illustration accompanying Pownall's article shows the top of the terminal ears rounded but this may be a draughtman's fiction, as is the omission of rivet holes from the shoulder. Round ended ears do, however, occur as the sword from Brechin, Angus, shows (Evans, 1881, 289, Fig. 352). There are two perforations in the ears and a ricasso.

681	59	-
131	39	-
		-

CO. WESTMEATH nr. ATHLONE

No. 530 (Fig. 43). In each 'ear' of the terminal there is a small perforation, but the outer casing of the example on the dexter side is wanting. There are 3 holes each with a rivet 10mm. long and 3mm. in diameter in the grip. The shoulder contains 6 perforations, 4 of which have their rivets in position. The 2 upper examples are 13.5mm. long, the middle 10mm. and that nearest the tip 8mm; each is about 3mm. in diameter. All the rivets in the hilt have hollowed ends in the centre of which there is a small projection. There is a ricasso. A roughening of the surface of the blade at about the narrowest part suggests a repair but this is not so. The surface shows a broad flat midrib flanked by a distinct ridge towards the edge. Near the tip the ridge disappears and the edges are drawn out.

642	60	6
111	34	22 ozs.

N.M.I. P.242 (Exhibited)

CO. WESTMEATH nr. ATHLONE

No. 531 (Fig. 43). The blade of this sword has suffered considerable damage and the lower portion is entirely wanting. What survives is now curled up on itself towards the hilt, evidently from the action of intense heat. The intact portion, which has a ricasso, averages 6mm. in thickness and a thin, but distinct, ridge follows the outline of the edge. The shoulder contains 6 rivet holes, 5 of which still have their rivets in position. The uppermost pair average 12mm. in length, the middle pair 10mm. and the example at the point of the shoulder 7mm. All specimens are round in section and have sunken heads. The handgrip contains 3 rivet holes, the lower of which has a rivet of similar type to those in the shoulder and 16mm. long in position.

Both of the ears are perforated with a rivet hole.

-	59	-
111	-	-

N.M.I. W.77 (CC.7:10)

CO. WESTMEATH

No. 532 (Fig. 43). This sword has suffered considerable damage and most of the handgrip is missing. The shoulders contain a total of 6 rivet holes. The three on the sinister side have their counter-sunk rivets in position, but on the dexter side only the topmost rivet remains. The upper pair are approximately 12mm. in length, that in the middle 10mm. and the lower example 7mm. The blade is bent and curved. The lower portion has been affixed at a point 70mm. from the tip. In places the edges are deeply serrated and a ridge running paralled to these follows the outline of the blade. There is a ricasso.

570	55	6
-	42	-

N.M.I. W.80 (CC.7:10)

IRELAND

No. 533 (Fig. 43). Portion of almost parallel sided blade. It has been broken at two places, but has been repaired by solder. The surface is somewhat rough and shows a flattened midrib, the sides of which are drawn out to form the edges. The tip end is also wanting.

368	-	6
-	24	-

M.M.B. 3890 (C 6.11)

IRELAND

No. 534 (Fig. 43). Lower portion of blade of lenticular section and with slight ridge and groove running parallel

to the edges. The fractured end has been damaged and it contains a perforation and the remains of another, most likely the result of modern interference.

382	-	5
-	30	-

M.M.B. 475. 1937A

IRELAND

No. 535 (Fig. 43). Handgrip wanting. The shoulder contains 4 perforations each of which ~~contains~~ retains a rivet. The upper pair average 15m. in length and the lower 10m. There is a ricasso. It appears that the surface of the blade has been cleaned. In section it is elliptical and a thin shallow groove runs parallel to the edges.

620	60	7
-	30	-

U.M.A. Cantab. M.C.99.183

IRELAND

No. 536 (Fig. 43). Handgrip wanting. The shoulder contains 4 perforations, the upper pair ~~of which~~ still retain their rivets about 16m. long in position. There is a ricasso. The surface of the blade is rough and dark in colour. It is elliptical in section and a shallow and narrow channel runs parallel to the edges about 4m. in. The edges are drawn out from that part.

615	54	6
-	30	-

U.M.A. Cantab. M.C.99.184

IRELAND

No. 537 (Fig. 43). 2 small perforations in handgrip, one of which retains its rivet 14m. long. There are 4 perforations in the shoulder and a ricasso underneath. The

blade is of flat lenticular section and a ridge runs parallel to the edges. There is a dark patination over the hilt and patches on the blade.

670	57	5
105	30	18½ ozs.

U.M.A. Cantab. M.C.99.185

IRELAND

No. 538 (Fig. 43). Well preserved. There are 2 small perforations in the grip and 4 in the shoulder. The squarish terminal also has a perforation. The grip has slight flanges and there is a ricasso. The blade is of flat oval section and is slightly ridged near the edges.

Although of somewhat heavier proportions throughout this sword bears a marked resemblance to sword of Class ~~IV~~ VI. the key-stone shaped head with perforation, the formation of the handgrip and shoulder, and the small rivet holes are characteristic. This sword can be parallalled with No. 509 or perhaps more specifically with one of the Bog of Cullen swords No. 528. While the leaf-shaped blade is more in keeping with swords of Class V. nevertheless the other factors seem to be sufficient to warrant its inclusion in this class.

595mm.	67mm.	7
111mm.	51mm.	-

Devizes Museum.

IRELAND RIVER SHANNON

No. 539 (Fig. 43). This small sword is in a somewhat damaged condition. A large portion of the handgrip is wanting, the blade has been corroded due to accretions of iron oxide, and in places its edges are serrated. A dark greenish patina covers most of the surface and some tiny air holes are present in the metal. The surviving portion

of the handgrip contains one rivet perforation. At the point of its mergence from the shoulder the surface appears slightly rough, suggesting a cast on, but this does not appear to be the case. The shoulder contains 4 rivet holes, with portions of the rivets remaining in the two upper examples. The blade is flat oval in section and there is a ricasso. A ridge runs along the edges.

433	46	4
-	18	-

N.M.I. W.21 (CC.7:10)

IRELAND

No. 540 (Fig. 43). The top of the terminal ears has been broken off. These contained 2 perforations and there are 2 more in the grip with the lower example retaining a rivet, 17mm. long, with sunken head that has a tiny projection in the centre. The 4 shoulder rivets also have this feature. In places the blade bears a dark patination and the edges have been damaged. A distinct ridge runs parallel to these and there is a ricasso.

757	58	6
-	33	-

N.M.I. W.40

Bibliography:

Raftery, Joseph: Prehistoric Ireland (1951), Fig. 210 (shoulder only)

Wilde, William: Catalogue, 445, Fig. 321, No.40

IRELAND

No. 541 (Fig. 43). Apart from a short stump, the hand-grip is wanting. Most of the surface of the shoulder is encrusted with an iron deposit and beneath are slight ricasso notches. There are 2 holes present and one of these has a rivet 9mm. in length in position. The blade is

in good condition and is lenticular in section, but the edge, which is quite sharp, has been drawn out.

572	58	7
-	30	-

N.M.I. W.55 (CC.7:10)

No. 542 (Fig. 43). Lower portion of blade. It has a pronounced groove and bevel. The edges are well drawn out but have suffered considerable subsequent damage.

Present length 255mm.
Max. thickness 7mm.

N.M.I. W.84 (CC.7:11)

No. 543 (Fig. 43). This sword has suffered some damage, the edges of the blade are serrated and the tip is wanting. Towards the edge there is evidence for a very slight thickening of the grip. There are 2 rivet holes and the terminal has a shallow central hollow. The projections when viewed from the side gives a sectional profile of an inverted key-stone. The shoulder contains 4 perforations. The blade possesses a slight ricasso. It is flat oval in section and a slight ridge follows its outline about 4mm. in from the edge.

645	61	6
102	39	-

N.M.I. 1882: 183 (CC.7:10)

IRELAND

No. 544 (Fig. 43). Lower portion of blade. The surviving remains, which are slightly curved in profile, taper from a maximum width of 29mm. to a point. In section the blade is a pointed oval and a groove runs parallel to the edges at about 4mm. in. The latter have suffered some damage.

Present length 220mm. N.M.I. 1890: 35 (CC.7:11)

IRELAND

No.545 (Fig. 44). The handgrip has been broken across at about midpoint. The web is very thin, about 2mm. but there is a slight thickening at the edges. The grip contains 2 rivet holes with a rivet, 14mm. in length, in position in the lowermost hole. There is the possibility that the portion that is missing due to the break may have contained another hole. Where the handgrip merges with the shoulder a slight roughening of the surface of the metal is evident. This may suggest that the handgrip was cast on at that point, if this is so the work is technically perfect. The hilt terminal, when viewed from the side, assumes in profile the shape of an inverted key-stone. At the end of the terminal at the centre there is a small V shaped cleft. The shoulder is straight sided and contains 4 rivet perforations, one of which has a thin rivet, 10mm. in length, in position. The blade is in a good state of preservation. It is of flat ~~lens~~ oval SECTION with the part nearest the edge slightly drawn out.

558	63	6
105	30	19 ozs.

N.M.I. A.1898: 112 (CC.7:10)

IRELAND

No. 546 (Fig. 44). Terminal hollowed in the centre. The grip contains 2 perforations and there are 5 in the shoulder but 1 may not be original. 3 of these retain rivets all having sunken head and tiny central projection. The upper pair are 11mm. long, the lower example 9mm. long. The extent of the handgrip can be observed ON the shoulder. The blade is of flat section with the edges drawn out especially near the point. The tip is missing.

583	60	5
111	34	-

N.M.I. I.A. 183/50

IRELAND

No. 547 (Fig. 44). At the bottom of the terminal cleft there is a small semi-circular hollow. The grip has slight edges, it was broken at the lower hole but has been repaired by bronze (brass) solder. There are 3 perforations and 2 in the shoulder, the example in the sinister wing retains its rivet 17mm. long. There is a ricasso and a dark line indicates the extent of the hilt plates. The blade is smooth and largely free from patination but there are numerous tiny air holes present. The surface shows a flat central fullness the sides of which are drawn out to form the edges.

770	60	6
120	33	-

N.M.I. (No Reg. No.)

IRELAND

No. 548 (Fig. 44). The handgrip has been cast on at the point of junction with the SHOULDER. It is very thin, not more than 2mm. Each of the terminal ears contains a perforation. There is also another hole at the widest part of the grip. The shoulders contain a total of 4 perforations, the bottom example on the sinister side still retains its headless rivet, 9mm. long and 3mm. in diameter, in position. There is a slight ricasso. The blade possesses a flattened central swelling that is drawn out to form the edges.

703	52	7
117	31	26 ozs.

N.M.A.S. D.M.18

IRELAND

No. 549 (Fig. 44). Only the base of the handgrip, the shoulder, and a short part of the blade, now much damaged, below it survives. There are 4 rivet holes in the shoulder

and the remains of another at the fractured end. There is evidence for a very slight ricasso.

Length 157m. Hull Museum No.53
Max. width of shoulder 50.

IRELAND

No. 550 (Fig. 44). In good state of preservation. The surface of the handgrip is slightly rough. It contains 2 perforations, the lower of these retains its rivet, this has a clenched head and is 17m. long. There are 4 holes in the shoulder, 3 of which retain their rivets, the 2 upper examples are about 13m. long, the lower rivet 9m. long. The base of the handle is indicated across the shoulder. The surface of the blade is smooth and its sides have been drawn out to form the edges. These are quite sharp.

580	49	6
100	27	17¼ ozs.

B.M. 54, 7-14, 292

IRELAND

No. 551 (Fig. 44). Dark patination throughout. The surface of the blade is somewhat rough, the tip is wanting and the edges are bevelled. The two holes in the grip retain their rivets; the top is 12mm. long, the lower 10mm. long. There are 8 perforations in the shoulder, four of these have rivets.

650	54	6
110	30	-

Swan Collection

CLASS 6A. The grip contains 2 rivet holes and terminates in a T shaped finial. The shoulders are pointed and some are slightly hollowed. The widening of the blade is not pronounced, all have a ricasso notch.

COS. ANTRIM/DOWN RIVER BANN

No. 552 (Fig. 44). Well preserved. The flanged grip contains 2 perforations and on each side of these there is a ridge. There are 4 rivet holes in the shoulder. The blade is flat oval in section and a ridge runs parallel to the edges.

556	60	7
105	51	-

M.M.B.

CO. TIPPERARY DEVILS BIT MOUNTAIN

No. 553 (Fig. 44). The present handgrip has been cast on at the point of mergence from the shoulder. The web gradually thickens towards the edges to form flanges of sort and there are 2 rivet holes present. The shoulder contains 2 perforations one of which retains a square sectioned rivet 11mm. long in position. The blade has been broken across a short distance below the ricasso. In section it is lenticular and a ridge runs parallel to the edges which have suffered considerable damage.

Allegedly found with a spearhead, 295mm. long and with loops on each side of the socket.

448	52	7
108	24	15½ ozs.

M.M.B. 4022 (5.4)

CO. TYRONE ANEETER

No. 554 (Fig. 44). The handgrip has been broken off at the junction with the shoulder and the present grip has been cast on, but the pommel end of this is now wanting. What survives has slight flanges. It contains a rivet hole and there are the remains of 2 more at the fractured end, but whether these are original or not it is difficult

to say. The shoulder contains 3 perforations but one of these is partially filled up as a result of the casting on of the handgrip. The hole on the dexter side contains a slender rivet 10mm. long with slightly clenched heads. There are some blow holes present in the blade but nevertheless the surface is quite smooth. In the centre of the blade about 377mm. from the tip there is a round patch of metal c.4mm. in diameter, perhaps a plug. The blade is lenticular in section and a ridge runs parallel to the edges.

Found in shingle on the shore of Lough Neagh at Aneeter.

590	57	8
-	40	-

M.M.B. 42. 1936

IRELAND

No. 555 (Fig. 44). The plain handgrip contains a rivet hole and the unperforated depression for another, between these there is a slight hollow. The top of the shoulders are very slightly hollowed. They contain 2 perforations. The blade has been broken across at a point 215mm. from the tip. It is lenticular in section and a ridge runs parallel to the edges which have been damaged.

478	32	6
100	39	17 ozs.

M.M.B. 3883 (6.5)

IRELAND

No. 556 (Fig. 44). The plain handgrip possesses 2 rivet holes. There are 2 more perforations in the shoulder. The blade is elliptical in section and the edges have been drawn out. These have suffered some damage.

564	53	6
101	35	667 gms.

Royal Scottish Mus. Edinburgh 1891:

? IRELAND

No. 557 (Fig. 44). There are 2 rivet holes in the flanged grip and a groove runs up the centre. The shoulder contains 4 perforations and the lower example on the sinister side retains its rivet. The blade bears a brown patination. The surface shows a low rounded swelling flanked by a wide and shallow groove and a ridge along the edges. These are gapped and the extreme tip is wanting.

541	58	8
110	40	708.03 gms.

Ash. Oxon. 1927: 2893.

The following swords, Nos. 558-587, are miscellaneous weapons:

CO. ANTRIM TOOME BAR.

No. 558 (Fig. 45). The handgrip is wanting. The shoulder edges are jagged, but nevertheless, the remains of 2 rivet holes on each side can be discerned. Strictly speaking this sword does not possess a ricasso, rather a bluntening of the edges. The roughness of the blade's surface suggests that the object had not been smoothened down properly. The edges are blunt, and do not appear to have been sharpened.

488	48	-
-	45	7

N.M.I. W.11 (CC.7:8)

IRELAND

No. 559 (Fig. 45). A stump is all that remains of the handgrip. The shoulder contains a total of 4 small rivet holes. The blade is plain, its surface has not been smoothened down very thoroughly. The edges are reasonably sharp but in places have suffered some damage.

465	48	7.5
-	45	-

N.M.I. W.14 (CC.7:8)

Both this sword and the previous example possess a flat lozenge sectioned blade, this is an early feature, but yet the weapons do not fit into any of the recognised classes. They may be hybrids.

CO. OFFALY DOWRIS

No. 560 (Fig. 45). For description see p. 331

CO. WESTMEATH nr. ATHLONE.

No. 561 (Fig. 45). The handgrip is narrow, it contains 2 perforations and reaches its maximum width of 24m. at the bottom example. It is flanged and these continue down the shoulder. Two ridges run up the centre of the web and at the end the grip projects very slightly to each side. There are 2 holes in the shoulder and a ricasso underneath. The bladehas been broken in two places but these have been repaired. Around the lower repair the surface is pitted, perhaps as a result of the mending. The tip is wanting. In section the blade is lenticular with a ridge running parallel to the edges.

Found in the River Shannon.

584	51	6
103	42	26 ozs.

P.R. Oxon. 1496: 2624

IRELAND

No. 562 (Fig. 45). The handgrip possesses slight flanges that extend down the shoulders. It contains 3 rivet holes and a depression for a 4th. Four longitudional ridges give a corrugated effect to the surface of the web. The end projects very slightly to both sides. The shoulders contain a total of 6 perforations, but the outer casing of the lower example on the right side has been broken off.

The surface of the blade is smooth and is brownish in colour. It shows a round midrib that in places is flanked by a shallow groove towards the edges. The latter have suffered some damage. In section the blade is a pointed oval.

580	45	7
94	41	21 ozs.

Pub. Lib. Armagh

CO. WICKLOW

No. 563 (Fig. 45). The grip is flanged and a ridge occurs on each side of the two perforations. The pommel end assumes a key-stone shape. The shoulder contains 4 holes and the depression for 2 more. The surface of the blade is very smooth and clean but the tip is wanting. In section the blade is more or less of flat lozenge section.

556	51	6
101	39	-

Swan Collection

The three swords (561 - 3) all possess a small terminal, a ridged web, straight shoulders and a leafshaped blade. They are unusual but seem to stand nearest to Class III. weapons.

IRELAND

No. 564 (Fig. 45). This is an unusual weapon. The handgrip is flanged and terminates in a straight ended right angled projection to each side. There are 3 rivet holes present. The V shoulder contains 4 perforations and there is a deep ricasso notch underneath. A short distance in and following the ricasso outline is a line produced in a "cogwheel" fashion. Further in at the base of the swelling there is another similar line. The centre of the blade is occupied by a distinct midrib. This extends up the shoulder, at the top it bifurcates and continues up the handgrip, on

each side of the perforations, to the end. On the blade at its base there is a lightly incised line. Outwards from this there is a flat space, the edges of which are bevelled. The surface is smooth and bears a darkish patination.

586	47	7
105	35	21½ ozs.

N.M.I. W.6

While lacking the characteristic blade tip the shoulder features, especially the deep ricasso and the ornament, and the blade form with its distinct midrib are sufficient to assign the weapon to the 'carp's tongue' class. There is no evidence available regarding the find place of the sword. It was in the Academy's Collection when Wilde compiled his Catalogue in 1861 but in the absence of data concerning its discovery the possibility that it came to this country as a collector's piece cannot be overlooked.

CO. GALWAY LOUGH CORRIB

No. 565 (Fig. 45). Splendidly preserved, the surface bears a thin, dark green, patina. The grip is flanged, it possesses 3 rivet holes and ends in a slightly hollowed terminal that has narrow projections to each side. The shoulder contains 4 perforations and there is a ricasso. The blade is elliptical in section and a ridge runs parallel to the edges.
Not examined, description and illustration based on B.A. Card Catalogue of Bronzes.

482	49	7
100	37	545.73 gms.

Herts. Co. Museum.

On account of its characteristic ricasso shape this sword would appear to have been made under strong 'carp's'tongue' influence. Otherwise it retains all the features of Class V. weapons.

IRELAND

No. 566 (Fig. 45). The handgrip and lower portion of blade is wanting. The shoulders are straight sided and contain a total of 4 perforations but the outer casing of the 2 lower examples, and consequently the tip of the shoulders, has been broken off. The centre is occupied by a swelling. The surface of this is smooth the extent of which may indicate the limits of the hilt plates. The blade is narrow and is almost parallel sided. It is elliptical in section and the surface is pitted.

312 - 6

\- 23 -

N.M.A.Scot. D.M. 30

IRELAND

No. 567 (Fig. 45). Portion of almost parallel sided blade. It has been broken twice but was repaired by solder. The surface is somewhat rough and shows a flattened midrib the sides of which are drawn out to form the edges. The tip end is also wanting.

368 - 6

\- 24 -

M.M.B. 3890(6.11) C

CO. KERRY BALLINCLEMSIG

No. 568 (Fig. 45). The blade, although small (264m. long) is in form and design similar to the ordinary sword blade. The tip is wanting. A tang takes the place of the grip. This is 50mm. long and 19mm. wide. It is rectangular in shape and narrows from a width of 5mm. at the base to chissel end. Near the end the tang is perforated by a hole 7mm. in diameter. On each side of the tang the tops of the shoulders are flat.

Found digging a drain in a bog at Ballinclemsig.

314	41	-
-	28	-

C.P.M. L.188:73

Bibliography:

O'Connell, Donal B., Kerry Archaeological Survey (1939), 14, 51.

Butler (1958, 243ff.) has noted one or two tanged swords in the British Isles, one being from Ireland. This was found at the Cutts on the River Bann near Coleraine and Butler describes it as having a lozenge shaped blade, the sides narrow rapidly just below the shoulder and then run nearly straight and parallel to the tip. The shoulders are distinctly convex, with a notch or broken out rivet hole on each shoulder. A dome shaped button fits over the end of the tang and is attached to it by a thin pin which projects from the tang tip and through a central hole in the button. I have not seen or heard anything about this sword apart from Butler's record. According to Butler, tanged swords are Nordic in origin and as one formed part of the Dulduff (Ayrshire) hoard, Butler assigns them to a mature phase of the Late Bronze Age in these islands. It is doubtful if the Ballinclemsig sword is northern derived, on the contrary it appears to be just a local oddity.

CO. ARMAGH/MONAGHAN ~~Ar.M.~~

No. 569 (Fig. 45). The handgrip possesses flanges that gradually emerge out of the central web and there are 2 rivet holes present. The shoulder on the left side is straight but that on the right is hollowed. There are 2 perforations and an inverted V shaped swelling projecting out of the base of the blade occupies the centre. The blade is flat oval in section and the tip is slightly bent.

572	50	7
107	53	24 ozs.

Armagh Mus. 111: 1935

CO. DERRY LIMAVADY DISTRICT

No. 570 (Fig. 45). The handgrip is strong and possesses distinct flanges which continue down the shoulder. There are 2 rivet holes and the grip terminates in a key stone shaped finial. The shoulders contain 2 perforations and the centre is occupied by a slight swelling. The edges of the blade are neatly drawn out. What appear to be wood grain mould marks can be discerned on both the surface of the shoulder and blade.

559	50	6
111	42	20 ozs.

M.M.B. 737: 1954

CO. LIMERICK HOLYCROSS

No. 571 (Fig. 45). The handgrip contains slight flanges and 2 rivet holes. There are 2 perforations in the shoulder. One side of the blade has been filed back and this gives a lopsided appearance.

623	55	4
100	-	-

Limerick Mus. No. 125

Bibliography:

Herbert, Robert: The City of Limerick Public Library and Museum, N.M.A.J., 2(1940-1), 83.

O'Kelly, M.J.: A survey of the Antiquities in the Barony of Small County, Co. Limerick, ~~1610~~ ibid., 4(1944-5), 42.

CO. TIPPERARY FINOE

No. 572 (Fig. 45). The handgrip is flanged and contains 2 perforations. From a width of 15mm. underneath the terminal the grip widens to 27mm. at its point of mergence with the shoulder. The centre of the shoulder is occupied by a raised area diamond in shape. There may be evidence

that the sides of this were cut down by filing. The extreme tip of the blade is wanting.

536	52	5
110	43	$20\frac{3}{4}$

M.M.B. 469: 1927

CO. TYRONE FINTONA

No. 573 (Fig. 46). The handgrip possesses slight flanges and contains 2 perforations. It terminates in a right angled projection to each side. The shoulder contains 2 perforations. The base of the blade is thinned down to form an inverted V the top of which runs up to a line midway between the 2 holes. The edges of the blade have been formed by neatly drawing out about a millimeter of the side all round. Portion of the surface is coated by a thin coating of verdigris and the tip has been damaged.

Found about 1848 in a bog at Fintona.

563	50	5
107	52	$24\frac{1}{2}$ ozs.

N.M.I. 1959: 181(B.19:5)

CO. TYRONE

No. 574 (Fig. 46). This sword has been well cleaned and is bright brown in colour. However, the original smoothening down was not altogether completed and there are some indentations in the surface especially over the hilt. The handgrip is narrow and has thick flanges on both sides for most of its length. There are 2 perforations in the centre and the end projects slightly to each side. A triangular shaped swelling out of the base of the blade extends up to the bottom perforation. The shoulders which contain 2 perforations can be described as straight sided although that on the right side is slightly hollowed. Underneath it cuts away into the blade. The edges of the

blade are not very sharp, it is indeed doubtful if they received any effective hammering or sharpening. The tip is bent slightly.

602	53	7
98	45	25½ ozs.

Armagh Mus. 5: 1955

IRELAND

No. 575 (Fig. 46). In good state of preservation. The handgrip is well formed and possesses strong and distinct flanges that extend down the shoulder. It contains 2 perforations, there are 2 more holes in the shoulder and the centre is occupied by a triangular shaped swelling. Underneath they narrow rapidly into the blade. The surface of the hilt hasn't been smoothened down very effectively and over portion, especially on the dexter shoulder, there is a series of parallel grooves which may represent the wood grain of the model. The surface of the blade is of yellow colour. In places the edges are slightly bevelled. The extreme tip is wanting.

545	51	7
120	42	22

Armagh Mus. 6: 1955

IRELAND

No. 576 (Fig. 46). In good state of preservation. The handgrip is flangeless, but nevertheless, a slight thickening at the edge does occur. The grip contains 2 perforations. The shoulder contains a total of 4 rivet holes set in pairs on each side of a slight swelling. There are some patches of verdigris and slight incision over the surface but it is reasonably smooth. There are also tiny nicks in one or two places that give a cog-wheel like effect. A very slight

and narrow groove runs parallel to the edge.

478	43	7
101	42	17½ ozs.

Pub. Lib. Armagh

IRELAND

No. 577 (Fig. 46). The handgrip has slight flanges. There are 2 perforations in the shoulder and the lower centre is occupied by an inverted V shaped swelling that extends out of the blade. The edges of the latter have been drawn out slightly. There is a ricasso.

540	50	6
108	51	22 ozs.

M.M.B. 105: 1906

IRELAND

No. 578 (Fig. 46). The handgrip has slight flanges and these to some extent continue down the shoulder. There are 2 rivet holes present and a further 2 in the shoulder. Part of the surface of the lower half is occupied by an inverted V shaped swelling. The edges of the blade are drawn out slightly.

557	51	6
107	51	16 ozs.

M.M.B. 1911: 167

IRELAND

No. 579 (Fig. 46). The handgrip is flanged and there are 2 rivet holes present. The sides of the shoulders are bent underneath. They contain 2 perforations and the lower portion is occupied by an inverted V shaped projection that extends out of the blade. There are some very slight nicks in cog-wheel fashion visible on portion

of the surface.

550	49	6
105	50	14 ozs.

M.M.B. 1910: 776

IRELAND

No. 580 (Fig. 46). The handgrip is strong and possesses distinct flanges that extend down the shoulders. There are 2 rivet holes present. On the side there is evidence for the mould join. The shoulders contain 2 perforations and the centre is occupied by an inverted V. shaped swelling that extends up to the lower hole in the grip. The edges of the blade are drawn out slightly and the extreme tip is wanting. Over the surface of both hilt and blade there is evidence for wood grain mould marks.

549	51	5
118	42	15½ ozs.

M.M.B. 4021 (10.2)

IRELAND

No. 581 (Fig. 46). Plain handgrip that contains 2 perforations. There are 4 holes in the shoulder.

491	42	6
104	40	-

M.M.B.

IRELAND

No. 582 (Fig. 46). The handgrip is flangeless, but there is a slight thickening towards the edges. The grip contains 2 rivet holes and a depression for a third that has not been fully perforated. There are 4 perforations in the shoulder. The blade has been broken across at the

narrowest part and it has a blackish patination over the surface.

The Museum register states that this sword was found broken in a tumulus.

480	45	8
99	41	15 ozs.

N.M.I. 1883: 328 (CC.7:11)

"SLIABH DA CHON" (? N. Ireland)

No. 583 (Fig. 46). The handgrip is flanged on both sides and terminates in a round ended projection. There are 2 rivet holes in the grip and 2 in the shoulder. There is a ricasso and the edges of the blade have been drawn out slightly.

578	37	8
96	45	21 ozs.

N.M.I. 1883: 327 (CC.7:11)

Mr. Cowen has in his possession one of these swords with lozenge blade.

IRELAND

No. 584 (Fig. 46). The hilt and upper portion of the blade is covered by a thick patination of blackish colour. The handgrip has very slight flanges and contains two rivet holes. It terminates in a thick right angled projection. The shoulders contain 4 rivet holes and the centre is occupied by a triangular tongue. At the uppermost pair of rivet holes this bifurcates and continues up the handgrip, on each side of the perforations, in the form of slight raised ridges. The leafshaped blade is featureless and is flat oval in section.

569	60	6
88	44	26 ozs.

N.M.I. 1883: 326(CC.7:11)

IRELAND

No. 585 (Fig. 46). This sword is in excellent condition. The handgrip swells very slightly from both ends to reach a maximum width of 23mm. at about midpoint. It possesses 3 rivet holes and well formed flanges about 3mm. high, these continue down the shoulders fading out towards the point. The grip terminates in a crescentic projection. The shoulders have straight sides and contain 6 rivet holes, underneath are distinct ricasso. Over the surface of the hilt and blade very shallow grooves are discernible, these may be due to a wooden mould, but more likely to the smoothening down process.

490	50	7
122	34	14 ozs.

N.M.I. W.70 (CC.7:11)

IRELAND

No. 586 (Fig. 46). The handgrip, has strong and prominent flanges and contains 6 rivet holes. It ends in a squarish terminal 22mm. wide and 8mm. thick. A marked constriction demarcates the handgrip from the shoulder. The latter is straight-sided, the swelling of the blade continues in triangular shape up its centre and it contains 4 rivet holes. The blade is leafshaped. It has a flattish midrib and traces of a slight ridge are discernible towards the edges. The latter have suffered some damage.

510	39	6
112	33	14 ozs.

N.M.I. W.69 (CC.7:11)

IRELAND

No. 587 (Fig. 46). The handgrip is plain and is almost rectangular in plan. There are 3 rivet holes present. The shoulder is diamond shaped and contains 6 perforations,

3 on each side. The blade is plain and featureless and is flat in section. It is slightly leafshaped in outline reaching its maximum width two thirds its way down.

540	49	7
95	39	15 ozs.

M.M.B. 3886 (10.3)

This and the last four pieces do not appear to be authentic weapons on account of their form and appearance. They can best be considered as forgeries.

Morris (C.L.A.J. 20(1916-20) Fig. p.321 A) has published a sword which he states was found in a bog near Kilrea, Co. Derry. This is now in the National Museum (1921:10) and it is such an extraordinary weapon that, if not a fake must surely be an alien. The blade is parallel sided and on the inside of the bevel there is a vertical step. The ricasso notches are long and parallel sided and ~~one~~ are decorated on the inside with hatched triangles.

CO. OFFALY

Two typical Class 5 swords have just been acquired by the National Museum (Reg. No. I.A. 233/60). Both are well preserved and are similar in dimensions (496mm. in maximum length, but the blade tip of one is missing) and is having a flanged grip and a ricasso. The weapons are well finished but in one example none of the rivet depressions have been perforated.

Appendix A

Associated Finds of Irish Bronze Swords[16]

This Appendix contains a description of hoards in which bronze swords were found together, and with other objects, in Ireland. The term hoard is here applied to any group of objects that were deposited as a unit sometime in antiquity. Unfortunately details concerning the discovery of some of the older finds, as for instance Dowris, have not been adequately recorded and some doubt may be cast on their authenticity. Finds from river beds and fording places, such as Kildrinagh, even when found in apparent association cannot be accepted, as these articles could have been lost over a period of years and not laid down as a single deposit.

It was probably Sir John Evans (1881, 457-9) who first realised that hoards of bronze objects differ in character. Evans distinguished three major types of hoards which he termed Personal, Merchant, and Founders. The property of an individual, buried, perhaps, during time of trouble is a personal hoard. Merchants' hoards consist of the property of a trader and contain "objects ready for use and in considerable numbers". The founders' hoards were the stock in trade of a smith and largely consists of broken and worn pieces and lumps of waste metal. To this Hodges (1957,53) has added hoards of specialised tools that belonged to a craftsman. Votive deposits could also be included but there is no evidence for any such hoards from the Irish Late Bronze Age and for Britain, too, the evidence is slight (Piggott, 1952-3,5.)

In Ireland bronze swords have only been found in association with other objects on ten occasions and most of these occur within small personal hoards that are not particularly informative for close dating purposes. Only the Co. Roscommon and Youghal hoards can be assigned to Phase I of the Irish Late Bronze Age, all the others - Ballycroghan, Boa, Boolybrien, Carran, Derryhogan, Dowris, Knockadoo,

Knockmaon, Moolagh, Latteragh, Newport, and Tempo belong to Phase II.

Each hoard is dealt with individually. This takes the form of a short introduction concerning the site and time and circumstances of discovery, its present habitat, the nature and date of the hoard and any other observations concerning its significance that may have emerged. If the hoard was published a bibliography is given. A catalogue of the content follows. Here the objects are arranged according to type and a description and the dimensions of each, and for those in Museums the registration number, is included. Where warranted comments regarding comparisons, or the type in general follow. If a single piece was published the references are listed. All the objects are illustrated and the number of the plate or figure where they occur is indicated.

The Ballycroghan Hoard

During ploughing operations in the spring of 1949 three bronze swords were found, apparently together, on the farm of Mr. Patterson. The hoard, the property of Mr. T.B. Graham, is preserved in the Town Hall, Bangor, Co. Down, and has been published in detail by Jope.

The field in which the objects were discovered is now fairly dry, but it had once been a lake or marsh containing several small islands. It was near one of these islands that the swords were found. There was a great deal of timber, some of which had been dressed, present. This led Jope to suggest that the site may have been a Late Bronze Age Crannog, even perhaps a bronze smith's workshop. Subsequently the find place was studied in more detail by Hodges (U.J.A.,17(1955), 17,-23). In 1954 exploratory trenches were cut by him near the find spot but no structural features of any description came to light while some of the adjacent low mounds, on excavation, proved to be, not habitation sites, but <u>fullachta fiadh</u>.

<u>Bibliography</u>:

Jope, E. M. Three Late Bronze Age Swords from Ballycroghan, near Bangor, Co Down,

The Objects

No I Pl.I No 3 Fig. 20 No 152 (Jope Pl.I No I) The surface of this weapon is rough and does not appear to have received any post casting treatment. Indeed, a thin web of metal that squeezed out between the mould joins on the sides has been left untrimmed. It was intended to have 2 rivet holes in the hand-grip and 6 in the shoulder, but none of these have been perforated. The extreme tip of the blade has been broken off. In general the casting is poor and there are many air holes present.

621	52	7
105	40	-

No 2 Pl. 1 No 2 Fig. 20 No. 153 (Jope Pl. I No 2) The weapon is bent slightly, the handgrip is plain and the pommel end is wanting. The shoulder contains the imperforated depressions for 4 holes and there is a slight ricasso underneath. In section the blade is elliptical and the edges have been drawn out. The casting of this sword is by no means perfect, but nevertheless it has received some trimming.

618	50	7
-	44	-

No 3 Pl. I No I Fig. 20 No 151 (Jope Pl. I No 3) In good state of preservation. The handgrip has slight flanges. There are 2 rivet holes present and between them the imperforated depression for a 3rd. On each side of the holes 2 ridges run up the grip. This terminates in a straight ended pro-jection to each side.

The shoulder contains 2 perforations and it was intended to have two more. In section the blade shows a broad, flat midris that thins towards the edges which have been drawn out, but not sharpened. The surface of the blade has been beaten but many air holes show up.

627	53	7
105	48	-

Analysis

A spectrographic analysis has proved that the bronze used in the manufacture of these swords contain a fair proportion of lead (5-10%) as well as tin (9-10%) and copper.

From the technological point of view Jope considered that these weapons represent the three main stages in the manufacture of a cast bronze sword - No I is a raw casting straight from the mould, in No 2 the work was carried a stage further, the casting had been trimmed and the blade shaped. Finally No 3 represents the finished product with smooth beaten blade and holes perforated in the hilt to receive rivets. Jope also considered that the Ballycroghan swords were cast in moulds manufactured from the same model. This may or may not be the case. While all three are unquestionably of the same type (Class 5) there are at the same time small detail differences. Moreover in order to achieve the final finished piece Jope puts, to my mind, undue emphasis on post casting treatment and as we have already seen both the handgrip ridges and ricasso could well have been marked out in a mould (i.e. Fig. 50 No I). At any rate it appears that all were discarded and were going to be used as scrap for melting down. They could therefore just have formed part of the stock of a travelling scrap merchant, not necessarily the product of the same artificer.

The Boa Island Hoard [17]

This hoard was discovered on Boa Island, in Upper Lough Erne (O.S. 6" sheet Co. Fermanagh 4, 5) in 1875 during the removal of a large rock that impeded farming operations (Wakeman 1879, 258-60). Originally the hoard consisted of a large number of objects, sword fragments, broken spear-heads, knives, daggers, a number of socketed axes "and palstaves", a bronze hammer, one leg of a pot, and a lump of unwrought bronze. As all the objects appear to have been damaged and broken this hoard seems to have been the stock in trade of a bronze worker.

The hoard, as it now exists was acquired by Sir John Evans (1881,180) and in 1927 passed with the remainder of his collection to the Ashmolean Museum, Oxford. All the objects bear a greenish patination.

Bibliography:

Unpublished

The Objects

No I (Pl.3 No I Fig. 21 No 162) SWORD. In bad state of preservation and most of the blade is wanting. The handgrip has a straight ended terminal and slight flanges. It has been broken at the upper of the 2 holes. On both faces four low ridges run parallel up the grip, two on each side of the perforations. The grip has been cast on at the shoulder junction. The latter contains 2 rivet holes.

200 - -

102 - -

1927:2915

This sword can be assigned to class 5

No 2 (Pl. 3) KNIFE, two edges, socketed. The socket is oval in section and at the mouth was approximately 27 mm in external diameter by 23 mm in internal diameter. Part of the socket, near the mouth, has been broken off and there are the remains of a rivet hole in the fractured side. From mouth to blade the grip narrows a little and then expands into a slight shoulder. A low ridge runs across this. The blade is almost parallel sided. It possesses a central rib and has been broken near the tip. The edges have also been damaged.

Length 250 mm.

1927: 2910

This knife appears to fall into the class of socketed knives termed the Thorndon type by Hodges.
A good parallel is Dowris No 30 (Fig. 52)

No 3 (Pl. 3) LOOPED SOCKETED AXE with oval mouth 45 mm. in greatest diameter. A short distance below the mouth the body is encircled by a moulding. The cutting edge is wide and curved.

Height 100 mm. Max. width of cutting edge 73 mm.

1927: 2908

The Dowris material (Fig. 56) provides parallels.

No. 4 (Pl.3) LUMP OF BRONZE. This may be a piece of bronze from a casting. One of the faces is smooth which suggests that it may have been worked over in some way or perhaps served the purpose of a makeshift anvil.

1927: 2916

No. 5 (Pl.3) HAMMER, bronze. Only the head and adjoining portion of the body survives. The body is more or less rectangular in section and the head takes the form of a slight widening of the sides. The working face is domed or rounded.

Length 60 mm. 1927:2909

This hammer probably belongs to the same type as the Dowris hammer (Fig. 52 No 17) but there the head expands more to the sides.

No 6 (Pl.3) SPEARHEAD, small with both socket and wings of blade damaged. The top is wanting.

Length 78 mm. 1879

No 7 (Pl.3) SPEARHEAD. Only the tip of the blade survives. The centre is occupied by a hollow swelling and a very slight ridge runs parallel to the edges.

Length 102 mm. 1927:2914

No 8 (Pl.3) SPEARHEAD, small leaf shaped. The socket, the mouth of which is wanting, extends up the centre of the blade gradually tapering towards the point. The tip is missing and

the edges have been damaged. A low ridge runs along the edges.

Length 130 mm. Max. width of blade 32 mm.

1927: 2912

No 9 (Pl. 3) SPEARHEAD, leaf shaped. Most of the socket is missing. The blade has been broken near the point. A ridge runs parallel to the edges, these are bevelled and have suffered some damage.

This spearhead and the two previous examples appears to be of the Greenwell and Brewis Class V (1909, 460) numbers 6 and 8 being diminutive examples.

1927: 2913

The Boolybrien Hoard

This hoard, now in the National Museum of Ireland, consists of 11 chain links, sunflower pin, trumpet, 2 socketed axes, handgrip of sword, 2 plain rings and 3 rings with transverse perforation, was found within the trumpet in a bog at Boolbrien, Co. Clare, in 1930. The deposit came from a level, containing mud and tree stumps, below the peat and above the gravel.

Bibliography:

Unpublished

The Objects

No 1 SUNFLOWER PIN (Pl. 4) A slight ridge runs around the edge of the disk and on the inside there is a series of dog tooth (hatched triangles) ornament. This is executed in very light incised lines. Between this and the central boss fifteen concentric circles occur. The boss is 12 mm. in diameter at the base and rises to a height of 9 mm. The back of the head is also ornamented, Here the decoration consists of straight lines extending in from the edge for a distance of 5 mm. For part of the way, on the inside,

they are bounded by an incised thin line. The pin is round in section and tapers from a maximum diameter of 6 mm. to a point. It has been broken 140 mm. from the tip

Diameter of head 62 mm. Length of pin 220 mm.

1931: 232

Bibliography:

Report N.M.I., 1930-1 Pl. 6 Nos 1A and B

Sunflower pins are immediately derived from Scandinavian pins of a type that is found in the Danish Bronze Age periods IV to VI, but the more close parallels occur in periods V and VI. Such pins have been divided by Hodges (1956, 43) into 2 classes, Class I in design and ornament stands closest to its Scandinavian anticedents. On the other hand Class II with its large and conical boss and greater variety of decoration would seem to be derived in Ireland from Class I. It is to the second class that the Boolybrien pin belongs.

No 2 (Pl. 4) SOCKETED AXE, looped. The mouth is roughly oval and is 32 mm. in maximum length by 22 mm. in maximum width. The walls average 3 mm. in thickness. There are 2 shallow grooves underneath and there is a longitudinal crack running down on one face for a length of about 15 mm. Internally, at about midpoint, on the long axis, two low vertical ridges occur. The edge is sharp and on the sides evidence for a mould join is clearly visible.

This axe and the following fragment are of the bog shaped variety, and can be paralled in the Dowris hoard (Fig. 56)

Length 56 mm. N.M.I. 1931:233

Max. width at cutting edge 41 mm.

Bibliography:

Report N.M.I. 1930-1 Pl. 6 No 3

No 3 (Pl. 4) SOCKETED AXE, looped. The mouth is to some extent oval, it is 30 mm. in maximum length and 23 mm. in maximum width. The walls average 3 mm. in thickness. Underneath the axe is circled by 3 shallow incisions. Internally there are 2 vertical ridges at about midpoint on the long axis. On the edge the mould join is visible. Indeed the two pieces did not altogether fit evenly and this causes a slight step on the outside. The lower portion of the axe is missing.

1931: 234

Bibliography:

Report N.M.I. 1930-1, Pl. 5

No 4 (Pl. 4) CHAIN, bronze, consisting of 7 triple links, 2 double links of the same dimensions and 2 larger double links making a total of 29 rings. The smaller rings are flat, only about 2 mm. in maximum height. They are roughly circular and average 19 mm. in external and 11 mm. in internal diameter. The two pairs of double rings are of the same dimensions, 18 mm. in external diameter. The larger rings were probably attached to the ends of the chain. One of each pair is slightly thicker than the other. All are 23 mm. in external diameter, but the larger is 15 mm. in internal diameter and the smaller 17 mm.

At five places the links are joined by means of a thin circular wire-like bronze. In another instance a flat band of bronze is used. These are not satisfactory methods of attachment as the ends were only pushed together and no attempt was made to secure them, a fact that suggests that the chain was not used for any strenuous purpose. The chain is 657 mm. in total length.

1931: 221-31

The Boolybrien chain is similar to some of those that formed part of a curious object that was discovered about 1840 three feet under the surface of a reclaimed bog near Roscommon town (Wilde 1961, 576-8 Fig. 487 No 1)

From Wilde's description this had two broad chains formed of five strands of five linked rings except the outer and inner strands that had four link rings. At the centre the chains were joined to what Wilde termed "curved shoulder plates" and at each end were attached to circular open work discs. On the other sides of these bosses other chains, mainly composed of triple links occurred. These were joined to each other by means of "narrow looped slips of bronze".

This object was probably used as a ceremonial collar and as the Boolybrien chain finds its exact parallel there it may have been part of a similar "collar"

The flat connecting band finds a close parallel in the Braes of Gight hoard, Aberdeenshire (Muirhead 1890-1, 135-8 for illustration of the conjoined rings see Fig. 5 p. 137 also Callander, 1922-3, Fig. 11). In discussing these linked rings Childe (1935,164) has stated that similar rings occur as girdle chains in Late Bronze Age and Hallstatt Lake dwellings and Urnfields of Switzerland and Upper Bavaria. Mac White (1945,97) believes that the Boolybrien chain links are a late Hallstatt form and draws attention to an object discovered in the Tumulus des Moidons, Jura. This ornament consists of a plaque of openwork bronze to which a series of perforated discs are attached by means of triple links (Déchelette, 1927, 141 Fig. 251). These links are identical to the Boolybrien examples, not only in the form but also in the presence of the flat connecting bands.

Somewhat similar triple rings formed part of, what may originally have been, a more elaborate object that was discovered in a tumulus (of the La Tène period!) at Němějice, Bohemia (Déchelette op. cit. 376, Fig. 377).[18] The trip link idea is also evident in the bracelet from Laumac assigned by Dechelette (op. cit.41, Fig. 227, 5) to the Laumacian complex.[19]

While it has not been possible to closely date the Boolybrien chain there is no need to postulate a late date. If the alleged Braes of Gight connexion holds good a 7th century date seems likely.[20] It may be also pointed out that double links occur in the Huelva hoard (Ebert, 1926, Taf.130,u),

now dated to the early or middle 7th century (Hawkes and Smith, 1957, 179)

No 5 (Pl. 4. Fig. 19 No. 123) Handgrip of SWORD. This is flanged, it contains 2 perforations and terminates in a straight ended projection to each side. The surface is free from patination and the mould joint is visible on the side. It appears that this is a grip that was cast-on, but subsequently became detached. This fragment probably belonged to a sword of Class 5.

Length 69 mm. N.M.I. 1931: 235

Bibliography:

Report N.M.I. 1930-1 Pl. 6 No 2

No 6 (Pl. 4) Circular bronze RING similar to following example except smaller. It is 35 mm. in external diameter and 28 mm. in internal diameter (1931: 237)

No 7 (Pl 4) Circular bronze RING 44 mm. in external diameter and 35 mm. in internal diameter. The ring is solid and is circular in section.

1931: 236

No 8 (Pl 4) Circular bronze RING. This is a flat oval in section with an internal bevel. It is perforated transversely at two points ppposite each other. These perforations are roughly oval and aver age about 8 mm. in maximum length by 5 mm. in maximum breadth. The ring is 30 mm. in external diameter and 9 mm. internally. It is 8 mm. high. The ring appears to be solid.

1931: 238

No 9 (Pl. 4) Circular bronze RING, identical in every way with the previous example.

1931: 239

No 10 (Pl. 4) Circular bronze RING, somewhat similar to previous example except that it is smaller and lacks the pronounced internal bevel. This ring also contains two transverse perforations, not exactly opposite to each other. It is roughly circular in section and as far as can be determined is solid. Its external diameter is 28 mm., and internally 16 mm.

The surface in all 3 rings is smooth and is largely free from patination.

1931: 240

Bronze rings, both plain and with transverse perforations through the ring on opposite sides, are of frequent occurrence in Ireland. Plain rings of various diameters have often been found in association with other Late Bronze Age objects in, for instance, such hoards as those from Brockagh, Co Westmeath (a"number"of plain rings of different size, a pair of double rings, large ring with smaller one attached, and cup-ended penannular bronze ornament), Co. Fermanagh (2 plain rings, ring with transverse perforations flanged on outer side), near Glenstal, Co. Limerick (2 hollow rings transversely perforated and with buffer-shaped projections on the outside, a large hollow ring, small flattish bronze ring, and bag-shaped looped socketed axe), and at Kinnegoe Bog, Co. Armagh (a large plain bronze ring threading a small free moving ring, a gold bulla, pegged leaf-shaped spearhead, and looped bag-shaped socketed axe) (for description and illustrations of above hoards see Armstrong 1922, 144-9). Both plain and transversely perforated rings were found together with a socketed axe and a hammer near Trillick, Co. Tyrone. A pin passed through the body of the two perforated rings (Evans 1881, 398-9, Fig. 496, O'Gorman, J.R.S.A.I., 10 (10(1868-9), 164). This discovery of the pin and rings in juxta position has led to the suggestion that the combination of both formed some sort of brooch or buckle (Evans op.cit. 399). What may be a variant of this type of

ring has a flange or buffer-shaped projection outside the perforations, such as those from Co. Fermanagh and Glenstal already referred to. The flange may have been added to strengthen the outer lip.

Outside Ireland transversely perforated rings without lateral flanges appear to be rare. An example was found at Traprain Law and according to Miss Burley (1955-6, 151) such rings are otherwise unknown in Scotland. Also in Britain, one such ring occurs in the Llangwyllog Hoard, Anglesey (Way 1866, 97,111) in association with a number of solid cast plain bronze rings, an armlet of bronze wire, bronze tweezers, bronze button and button mount, a ring of "hard stone"dark green in colour, a bead of jet, a necklace of amber beads, and a bifid razor.

Rings with transverse perforations may have been used by means of a pin attachment as a brooch or buckle, or in addition the perforations may have been intended to receive a loop for some form of attachment to a chain or boss. In connexion with the rings with the lateral projections Wilde (1861, 579) noted that in some instances the buffers were transversed by double looped shapes of bronze. These connected them on each side with ring chains parts of which, in some instances, were still attached.

Plain rings may have had a general use and are more utilitarian in function. Their occurrence in Ireland in small personal hoards suggest that they were used by individuals as some form of attachment. In Northumberland in three instances bronze swords have been found in association with rings and this led Cowen (1933, 190) to suggest that these rings may have been in some way connected with the sword belt or its fittings. On the other hand a number of hoards, of a "horsey" character in Britain contained plain bronze rings i.e. Heathery Burn Durham (Greenwell 1892, 88ff.) Park-y-Meirch, Denbighshire (Sheppard, 1941) and Horsehope, Peebleshire (Piggott 1952-3). In discussing the Horsehope hoard, a hoard

that produced numerous plain bronze rings in association with other evidence of horse-driving, Piggott rightly associated them with horse harness. It of course must be remembered that none of the Irish associations contain any horse gear, or evidence for horse drawn vehicles. Indeed, there does not appear to be any definite evidence for the use of the horse as a traction animal until the succeeding Iron Age. While it does not seem justifiable to parallel the Irish rings with the British harness rings which would appear to be dated to the British L.B.A. III or more accurately within the 7th century B.C. (Piggott, 1952-3, 185, Hawkes and Smith,1957,159), nevertheless on the basis of association at home they can, whatever their exact function may have been, be assigned to Phase II of the Late Bronze Age

No 11 (Pl. 4) **TRUMPET.** This appears to have been cast in one piece, but it has now been broken across at about midpoint. The mouth is circular and is 42 mm. in external diameter, by 37 mm. in internal diameter. Underneath there are 4 spikes evenly placed. These average 18 mm. in height and 10 mm. in diameter at the base. Towards the bell end, which is also circular, the walls widen a little. There is a slight internal ridge. Here the object is 100 mm. in external diameter and 92 mm. in internal diameter. Immediately below the lip a small perforation was filled in antiquity. There are again 4 spikes underneath. These average 19 mm. in height and 12 mm. in diameter at the base

1931: 220

Report N.M.I. 1930-1 Pl. 5

This trumpet belongs to Mae Whites B1 Type and can be paralleled by the Dowris trumpets Nos 8 - 11 (Fig. 60).

The Carran Hoard

The two swords that form this hoard were found lying

together 1½ feet below the surface of a cut-away bog in the townland of Carran, Co. Donegal (O.S. 6" sheet 18). Both are in the National Museum of Ireland and can be assigned to Class 5.

Bibliography:

National Museum of Ireland: Archaeological Acquisitions in the Year 1958, J.R.S.A.I., 90, (1960), 17-18 Fig. 9.

The Objects:

No. 1 (Pl. 2 No 2 Fig. 20 No. 144) The hilt has suffered considerable damage. The upper half of the handgrip is wanting and the shoulder tips have been broken off. The handgrip is thin and plain. There are the remains of a rivet hole in the fractured end and another hole underneath this. On each side of these two slight ridges occur. The shoulder appears to have been straight sided and contained 4 perforations. There is no ricasso. In section the blade is a pointed oval and the surface is free from patination. The edges are bevelled.

564	-	5
-	40	-

1958:71 (B.17.1)

No 2 (Pl. 2 No 1 Fig. 20 No 145) Most of the surface bears a bluish patination or verdigris. The pommel end of handgrip is wanting. In the fracture there are the remains of a rivet hole and another underneath. The grip contains very slight flanges. The shoulder was straight and contained 2 perforations, but one of the wings has now been broken off. The blade is a pointed oval in section and a slight ridge follows the outline of the edges, but a ricasso is lacking.

575 - 5
- 41 -

1958:72 (B.17.1)

The Derryhogan Hoard

These two Class 5 swords were uncovered in 1957 in Littleton Bog, Derryhogan townland, Co. Tipperary (O.S. 6" sheet 48) by a turf cutting machine about 5 feet below the surface. As both were found at the same time they can be considered as associated.

Bibliography:

"National Museum of Ireland: Archaeological Acquisition in the Year 1957" , J.R.S.A.I., 88, (1958), 122

The Objects:

No I (Pl.6.2 Fig. 27 No 265) The grip is flanged, it contains 2 perforations and there is a 3rd in the terminal. Two ridges run up the web on each side of the holes. One of the 4 shoulder perforations retains a rivet stump. The part covered by the handle is raised slightly over the adjoining blade surface indicating that the plates were in position before the final polishing took place. There is a ricasso. The blade is of flat oval section and a ridge runs parallel to the edges. At about the most narrow part the remains of a cut down plug or rivet are present. The blade is bent and this, together with the surface scratchings, is due to the sword having been entangled in the mechanism of the machine

570 47 8
108 43 20 ozs.

1957:120

No 2 (Pl. 6.1, Fig. 27 No. 264) The handgrip appears to have been cast on at the point of mergance from the shoulder, it is flanged particularly towards the broken end.

There is a rivet hole present and the remains of another in the fracture. The shoulder contains 2 holes that on the dexter side having its rivet 8.5 mm. long and 3.5 mm. in diameter in position. Its ends are cut obliquely. There is a ricasso. A dark patch running across the shoulder indicates the base of the handle. The blade which is flat oval in section has been well smoothed down and a ridge runs parallel to the edges which are drawn out from that point. Towards the tip the blade is dark in colour but the remaining portion is dark brown and at the hilt and there are small blow holes in the surface.

542	48	7
-	39	-

1957: 121

THE DOWRIS HOARD [21]

Nearly two hundred objects from this hoard are still extant and it is, thus, by far the largest associated group of bronzes discovered in the country. The hoard was found about 1825 in or near Whigsborough, Co. Offaly, but precise details concerning the discovery are lacking. A considerable time elapsed before the appearance of any publication and then these were of a contradictory nature. After the discovery the hoard was split up but Lord Rosse and Mr. T. L. Cooke acquired most of the pieces.

Perhaps the first record in print are two notes in the Dublin Penny Journal for May and June 1833. The May note [22] (p.376) is on "Ancient Irish Bells and Crotals" and the other (p.77) is titled "Ancient Irish Trumpets". One of the Dowris Crotals is illustrated in the first note where it is stated that the object was found "a few years ago with a number of other objects in a bog near Birr". It was not until 1850 that a more definite statement concerning the hoard and the place of discovery was published. This was a paper read before a meeting of the Royal Irish Academy on 30th November 1848 by the Rev. T. R. Robinson.

Robinson's paper dealt with Lord Rosse's portion (now on loan to the National Museum) - a cauldron, 13 trumpets, 31 crotals, 31 axes, 3 gouges, and 29 spearheads. These, and others that Lord Rosse gave away "in particular to the late Dean (Dawson) of St. Patrick's" (in the N.M.I.), were claimed to have been found within the cauldron. Robinson noted the cauldron "several years ago" in Lord Rosse's collection but he found it "impossible to acquire any information as to the locality or time of its discovery till now" (p.237). The hoard, Robinson states, (p.238) was found in the townland of Doorosheath near Whigsborough (Co. Offaly) about eighteen inches under the surface of what may have been a cut away bog. The cauldron and the other objects were purchased about 1833 for Lord Rosse by "an inhabitant of Parsonstown but the men who had found it .... made him promise to keep the details secret during

their lives", and it was only when the last of them died in 1848-9 that the purchaser (whose name Robinson keeps secret) gave Robinson the information.

Robinson's paper brought immediate reaction from Cooke and in a little over a year a communication from him was read to the Academy "in order to correct a few trifling mistakes and inadvertencies into which he (Robinson) has fallen .... and to place on record .... some facts and circumstances that I happen to be cognizant of, relative to the discovery of the bronze articles..." (p.423).

Cooke states that at the time the hoard was discovered he was residing at Parsonstown about five miles away and "having a desire to preserve the antiquities of the country" he acquired several of the articles and collected as much information as he could regarding the find spot and the circumstances.

In variance to Robinson's informant Cooke gives the place of discovery as Dowristownland and claims that the objects were accidentally dug up by two men trenching potatoes on part of Whigsborough known as Derreens and situated between Whigsborough paddock and Lough Cowr. Not only is this statement contradictory but as Macalister (1949, 222) noted there is no such townland as Dowris nor is Derreens marked on the Ordnance Map. The Index to the Towns and Townlands of Ireland lists a Whigsborough in Co. Offaly (King's County) and there is a Dowris-heath south west of Whigsborough. Cooke also rejects Robinson's statement about the secrecy and claims that he was in contact with the finders, some of whom were still living in 1849. Cooke also gave away some of the objects that he acquired The Lord Lieutenant, the Marquis of Normanby, received what may have been a spear butt and other articles and these, along with what Cooke retained, are now in the British Museum.

It will be clear from this review that discrepancies exist between Robinson's and Cooke's account, neither of which can be considered as critical or accurate reports. Furthermore, on account of the long time that elapsed since the discovery

both authors are vague in detail. If Cooke was living in the neighbourhood at the time of the discovery and was often in contact with the finders, as he claimed to be, it is all the more regrettable that he did not put on record a more comprehensive report, instead of keeping silent until Robinson's paper prompted him to action.

Due to the largeness and on account of some of the objects, such as the crotals,[23] having no parallels the validity of the group forming a hoard as such may be open to question. In addition the circumstances of discovery are shrouded in mystery. But despite this there is nothing in either Robinson's or Cooke's account that would suggest anything other than that all the objects were dug out of the ground at the same time in the 1820s in or near the present townland of Whigsborough.

In Ireland no other hoard can compare with Dowris on account of its numerical superiority but a good parallel in Scotland is the Duddingston Lough hoard, ~~and in England.~~

It is difficult to explain the existence of such a large deposit. The presence of some unfinished or broken articles as well as lumps of waste bronze and sandstone rubbers suggest that the hoard was the property of either an artificer or merchant. Like Cooke (p.439) I too tend to favour the theory of a "resident operative" rather than an "itinerant merchant" for "what travelling merchant" asks Cooke aptly "would encumber himself by carrying about with him the residue of the contents of the crucible?" Cooke also records that when he visited the site, the find spot could be distinguished from the remainder of the field on account of the rank vegetation growing there. It must, of course, be admitted that it seems strange for any craftsman to abandon his fully stocked workshop and even if he did that the contents survived Late Bronze Age robbers. Perhaps the best explanation is that the objects were buried for safety on, or near, the site of a smithy during the time of distress or calamity and the occurrence of a number of objects within the cauldron would be in keeping with such a suggestion.

Date

Without question the hoard belongs to Late Bronze Age II. The B cauldron fragments makes it unlikely that the stock was deposited before the mid 7th century. But it may not have been long after that as the bucket is of pre700 date and the sword (no.6), with somewhat rounded shoulder, and the lunate spear (no.1) are representatives of an earlier tradition.

As both Lord Rosse and Mr Cooke disposed of some of the contents and as Cooke's list of the objects (p.425-30) then in his possession is most unsatisfactory it is difficult, if not impossible, to ascertain the exact number found. It must also be borne in mind that some strays may have crept in. Crawford (in Armstrong 1924, 14) in his statistical reconstruction lists 218 objects. Crawford's list, together with the number of objects known to be extant (or that were extant until very recently), are given in the accompanying table.

TABLE OF THE CONTENTS OF THE DOWRIS HOARD

Object	Number in N.M.I.	Number in B.M.	Total extant	Total in Crawford's estimation
Cauldrons	1	2	3	
Buckets	-	3	3	4
Bronze vessel	-	1	1	
Socketed Axes	27	8	35	
Part of axe	-	1	1	43
Spear heads	25	11	36	44
Trumpets	15	11	26	24
Crotals	39	9	48	48
Gouges	3	2	5	7
Chapes	-	1	1	3
Spear butts	-	1	1	3
Razors	-	3	3	5
Socketed hammer	-	1	1	1
Swords	-	5	5	5
Knives	-	7	7	8
Hollowtube	-	1 (in 3 pieces)	1	
Waste bronze	-	2	2	2
Sandstone rubbers	-	9	9	6
Punches	-	-		3
Buttons	-	-		3
Dagger (1)	-	-		1
Halberd	-	-		1
Fragments	-	-		7
Totals	110	78	188	218

(1) Illustrated in B.M. Bronze Age Guide (1920) Pl.8:7, not of Late Bronze Age date.

Bibliography:

The hoard has not been published but it has often been discussed in a general way in print and some of the objects illustrated. The bibliography lists only the sources that have a direct bearing on the hoard.

Armstrong, E.C. R. "Some Irish Bronze Age Finds", P.R.I.A., 36c (1922),134-41. Figs.1,2, and 3.

Armstrong, E. C. R. "The Early Iron Age, or Hallstatt Period in Ireland", J.R.S.A.I., 54, (1924), 9-14. Figs 1-5.

British Museum. Bronze Age Guide (1920) 105-7. Pl.8

British Museum. Later Prehistoric Antiquities of the British Isles (1953), Pl.5

Cooke, Thomas L. "On Bronze Antiquities found at Dowris, in the King's County", P.R.I.A. 4 (1848-50), 423-40

Macalister, R. A. S., The Archaeology of Ireland (1949), 221-3

Robinson, Rev. T. R. "The Contents of an Ancient Bronze Vessel found in the King's County", P.R.I.A. 4 (1850), 237-46.

Bland, P. "Ancient Irish Bells or Crotals", Dublin Penny Journal, Vol.I no.47 (1833) 376 (18-5-1833)

P. "Ancient Irish Trumpets" ibid vol.II no.56 (1833), 27 (27-7-1833).

THE OBJECTS:

No.1 SWORD (Fig.51 no.1) Only a stump of the handgrip survives. This is flanged and these extend down the shoulder. There are the remains of a rivet hole in the fractured end and 2 perforations in the shoulder. The sword contains a ricasso. The blade has been broken at two points. Its surface shows a rounded central swelling with a groove on each side and a ridge along the edge.

450 43 6

\- 32 -

Class 5 B.M. 54. 7-14. 282 (Box 642)

No.2 SWORD (Fig.51 no.2) The handgrip is wanting. There are 2 perforations in the shoulder and a ricasso underneath. The blade has been broken. In section it is a flat ellipse with a slight ridge running parallel to the edges. These are blunt

392 44 6

\- 32 -

Class 5 B.M. 54. 7-14. 284 (Box 642)

No.3 SWORD (Fig.51 no.3) Only lower part of blade survives On each side towards the fractured end the edges have been beaten back. In section the blade is elliptical and a ridge runs parallel to the edges.

Length 280 m B.M. 54. 7-14. 285 (Box 642)

Bibliography:

British Museum Bronze Age Guide (1920) Pl.8 no.5

Kemble, John M. Horae Ferales (1863) 165, Pl.10:28

No.4 SWORD (Fig.51 no.4) The handgrip is flanged, it contains one rivet hole and the unperforated depression for another. On each side of these a ridge runs up the length of the grip converging at the end. The shoulder contains 2 perforations and there is a ricasso. The blade has been broken at two points, it is elliptical in section and a slight ridge runs parallel to the edges.

423 47 6

98 37 -

B.M. 1883. 2-18. 16 (Box 642)

This Class 5 sword is with the other Dowris material in the British Museum. The Register states that it was found near Birr, but it is doubtful if it formed part

of the hoard as five is the total number of swords listed by Crawford. It is included here with some reservations but is not listed in the table.

No.5 SWORD (Fig.51 no.5) This sword has suffered considerable damage. The blade has been broken at four different places and also the handgrip a short distance above the point of mergence with the shoulder. All have been repaired by lead solder. The handgrip is flanged and it terminates in a round ended projection to each side. There is a rivet hole present and the depression for 2 more. The shoulder contains 2 perforations and there is a ricasso. The surface of the blade is smooth. It is lenticular in section. A very low ridge runs parallel to the edges which appear to have been drawn out from that point.

416 43 6

92 32 13½ ozs.

Class 5 B.M. 54. 7-14. 283

Bibliography

British Museum Later Prehistoric Antiquities of the British Isles (1953) Pl.5 no.8

No.6 SWORD (Fig.51 no.6) There are 3 perforations in the flanged grip and from the lowermost of these to the end a slight depression occupies their width. The shoulder is slightly rounded and there are the unperforated depressions for 6 rivet holes present. Underneath there is a more or less straight sided ricasso. The blade was broken across but has been repaired by lead solder. The surface is somewhat rough and in places bears a darkish patination. A rounded swelling occupies the centre and a slight ridge runs parallel to the edges which have suffered considerable damage. The extreme tip is wanting.

509 49 7

109 39 18¼ ozs

B.M. 83, 2-18, 41

In almost every way this sword is similar to Class 5 weapons but its rounded shoulders refers it back to an earlier group - Class 2. Of course it should be pointed out that this sword appears to be a survivor of a then almost extinct tradition and was manufactured when Class 5 swords were common.

Bibliography

Armstrong, E. C. R. "The Early Iron Age in Ireland" J.R.S.A.I., 54 (1924), Fig.6

Brewis, W. P. "The Bronze Sword in Great Britain" Arch., 73 (1922-3) Fig. 30

British Museum. Bronze Age Guide (1920), Pl.8 No.6

No.7 CHAPE (Fig.51 no.7) Purse shaped (Class III) in good state of preservation.

B.M.1883. 2-18. 13.

Bibliography

British Museum Later Prehistoric Antiquities of the British Isles (1953), Pl.V no.10

No.8 GOUGE (Fig.51 no.8) socketed measuring 20 mm in external diameter, 17 mm in internal. A crack runs down the back for a distance of 21 mm. The cutting edge is 20 mm in maximum width.

Length 59 mm N.M.I. S.A.57.1.A.

No.9 GOUGE (Fig.51 no.9) socketed with mouth 20 mm in external diameter by 16 mm internally. The cutting edge is 16 mm in maximum width. The object is well preserved and its surface is largely free from patination.

Length 52 mm N.M.I. W.52 (Exhibited)

No.10 GOUGE (Fig.51 no.10) socketed with mouth that tends to be D shaped rather than circular and that is 15 mm in

greatest width with walls 2 mm thick. The cutting edge is 13 mm in maximum width.

Length 50 mm N.M.I. S.A. 57. I.A.(Exhibited)

No.11 GOUGE (Fig. 51 no.11) socketed, the mouth is 17 mm in external diameter by 14 mm internally and the cutting edge is 15 mm in maximum width.

Length 57 mm B.M.1854. 7-14. 278

No.12 GOUGE (Fig.51 no.12) The upper part of the socket is wanting. The cutting edge is 17 mm in maximum width. The surface is largely free from patination.

Present length 44 mm B.M.1883. 2-18.18 (Box 642)

The bronze socketed gouge in Ireland has been studied by MacWhite (1944, 160-5, Dis. Map. fig.1). It frequently occurs in hoards and except for the west is well distributed throughout the country. The Irish series may have its starting point in the gouges of the "carp's tongue" sword complex of the 7th century B.C. and MacWhite would place their arrival in Ireland at about 700 B.C.

Miss Elizabeth Burley (1955-6, 148) 24 divided the socketed gouges of Britain and Ireland into two classes, one is plain, the other has a moulding around the mouth or a collar slightly below the mouth. Miss Burley suggests that there may be a chronological distinction between the two types, for in Scotland the more elaborate examples, such as those from Adabrock and Wester Ord, had more exotic Hallstatt associations and on the whole may be later. The Dowris gouges are of Miss Burley's Class I.

No.13 RAZOR (Fig.51 no.13) Bifid, on each face two almost parallel ridges extend up the blade, more or less preserving the width of the tang. The [illegible]

The edges have been slightly damaged and on parts of the surface there is an accretion of verdigris.

Max. Length 78 mm.
" Width of blade 32 mm.

B.M. 1883. 2-18. 14

Bibliography:

British Museum. Later Prehistoric Antiquities of the British Isles (1953). Pl. 5; 12

No. 14 RAZOR (Fig. 51 No 14) Bifid, blade extremely thin and part of the surface bears a dark patina.

Max. Length 75 mm.
" Width of blade 25 mm.

B.M. 1854. 7-14. 32 (Box 642)

No.15 RAZOR (Fig.51 no.15) bifid with very thin blade. The surface is smooth and free from patination of any kind.

Max. length 78 mm B.M.1854. 7-14. 33 (Box 642)
Max. width of blade 23mm

These three razors belong to Mrs. C. M. Piggott's Class II (1946, 121). The type is characterised by a deep notch at the top of the blade with a perforation underneath, and an unpierced tang. There is often a pronounced midrib. Class II razors are generally found in hoards and in these islands the largest concentration occurs in the Thames valley and in Wessex. The north-east of Ireland has a number but apart from Dowris the remainder of the country is almost blank. (Dis. Map Fig.2)

No.16 ? SPEAR BUTT (Fig.51 no.16) Hollow tube with expanding circular foot. The expansion is not regular and is more pronounced on one side. Opposite each other on the the body two elongated apertures occur. The mouth is 19 mm in external diameter and the walls are 1.5 mm thick. At that point they have suffered some damage.

It is difficult to suggest a use for this object but it may have served as a butt for a spear shaft.

Length 40 mm B.M.1883. 2-18. 15 (Box 642)

No.17 HAMMER (Fig.52 no.17) socketed with flat square head the edges of which are sloped off. All around the sides the mould join is visible and two low vertical projections emerge at the top of the socket opposite each other. The object may never have been used. The mouth is 14 mm in external diameter and 10 mm internally.

Length 48 mm Thickness of head 12 mm
Width of head 25 mm B.M. 1854. 7-14. 279.

<u>Bibliography</u>

British Museum <u>Bronze Age Guide</u> (1920) Fig.113

British Museum Later Prehistoric Antiquities of the British Isles (1953) Pl.V, 11

Socketed hammers were a standard item of equipment of the late Bronze Age metal workers and perhaps carpenter too. Among the Irish hammers Hartnett (1953, 101-3) recognised three main forms, the first has a circular socket, cylindrical body and domed head, in the second the socket may be round or square, the body oval or oblong and the working edge in the form of a wedge, the third has a short circular socket and an expanded T-shaped head. It is to the last group that the Dowris hammer belongs.

No.18 ? (Fig.52 no.18) This object possesses a round bulbous hollowed head perforated at the base and a ridge at the top and bottom. Under the head a flattened, somewhat triangular shaped blade about 2 mm thick occurs. The lower part has been broken off and towards the fractured end it is now curved. One face is plain but the other has a ridge along the edges and another running right down the centre.

Present length c.120 mm B.M.1883. 2-18, 12 (Box 642)

This is a most enigmatic piece and it is difficult to suggest a use. It appears to be no.10 in Cooke's list (1848-50, 425). To him it resembled a "mutilated portion of a chin stay for a military head-piece"!

No.19 AXE (Fig.52 no.19) Lower part of narrow axe. The body is somewhat hexagonal in section, the cutting edge is quite sharp and reaches a maximum width of 42 mm.

Present length 90 mm B.M.1854. 7-14, 275

This is another puzzling piece. It does, to some extent, resemble the lower portion of a socketed axe such as fig.174 in Evans (1881, 140). But as the Dowris piece shows no evidence for a socket it may be assumed

that it is not part of a socketed axe at all but part of a palstave or even a flat axe. If this is so its presence in this hoard is disconcerting. It could, of course, be explained as a survival, and such survivals, as for instance the halberd in the Stoke Ferry hoard (O'Riordain 1937, 199-200), are known, or just simply as a freak.

No.20 BRONZE TUBES (Fig.52 no.20, A, B, C.) Three pieces of hollow tube of D section. It is difficult to say if all are parts of the same tube. "A" is the largest piece and expands at the foot. "B" and "C" as labled as "probably from Dowris".

B.M.1854. 7-14. 182

No.21 LUMP OF WASTE BRONZE (Fig.52 no.21) on one side a semi-circular and somewhat smooth indentation occurs.

B.M.1854. 7-14. 16

Bibliography

British Museum Later Prehistoric Antiquities of the British Isles (1953) Pl.V,5

No.22 LUMP OF WASTE BRONZE (Fig.52 no.22) There is a smooth depression on one side but the remainder is extremely uneven.

B.M.1883. 2-18. 6 (Box 681)

No.23 ELONGATED PIECE OF SANDSTONE (Fig.52 no.23) the two broad faces are quite smooth.

B.M.1854. 7-14. 19

No.24 Small flat piece of SANDSTONE which appears to be in its natural rough state (Fig.52 no.24)

B.M.1853. 11-21. 2

No.25 Irregular shaped piece of SANDSTONE triangular in section. The ends are remarkably smooth (Fig.52 no.25)

B.M.1854. 7-14. 17

No.26 SANDSTONE PIECE (Fig.52 no.26) somewhat pyramidical in shape. The upper faces are smooth.

B.M.1853. 11-21. 1

No.27 Triangular shaped piece of SANDSTONE with smooth surface all round (Fig.52 no.27)

B.M.1854. 7-14. 20

No.28 SANDSTONE PIECE (Fig.52 no.28) triangular in shape and with rounded smooth edges.

B.M.1854. 7-14. 18 (Box 681)

These fragments were probably used for smoothening down the surface of bronzes by the smith.

No.29 SOCKETED KNIFE (Fig.52 no.29) The socket is oval in section and is 27 mm in maximum external length by 24 mm internally. It has suffered some damage. Most of the blade is wanting. At the fractured end it is elliptical is section and a ridge runs parallel to the edges.

B.M.1854. 7-14. 291 (Box 642)

No.30 SOCKETED KNIFE (Fig.52 no.30) with two perforations opposite each other. The socket is flat oval in section and is 27mm in maximum length with walls averaging 2 mm in thickness. There is a slight ricasso underneath.

The blade has a leaf-shaped outline. To some extent it is a flat lozenge in section and a ridge runs parallel to the edges. A short distance below the socket it has been broken but has been repaired, perhaps in modern times.

Length 174 mm Max. width of blade 20 mm

" of socket 40 mm " thickness at that point 6 mm

B.M.1883. 2-18. 10

Bibliography

British Museum Later Prehistoric Antiquities of the British Isles (1953) Pl.V,7

The two foregoing socketed knives belong to the type termed Thorndon by Hodges (1956, 38. fig.4). In Ireland, excepting the province of Munster, they have a wide distribution and are often found in hoards. There is also a marked concentration of these knives in the south of England and they again occur in northern France

No.31 SOCKETED KNIFE (Fig.52 no.31) The socket tends to be rectangular in shape and narrows towards the distal end. It is 21 mm in maximum external length by 10 mm in maximum external width with walls averaging 2 mm in thickness. The blade is somewhat rectangular in shape and a groove runs parallel to the edges and across the top. The tip is wanting. In section the blade is a pointed oval.

Present length 97 mm B.M.1883. 2-18. 11 (Box 642)

Length of socket 26 mm

Knives of this class have been termed the Kells type by Hodges (1956, 38, fig.4) and he considers them as a degeneration of the Thorndon class of implement. In distribution the type appears to be solely confined to Ireland.

No.32 TANGED KNIFE (Fig.52 no.32) The tang is flat and rectangular and a cast rib runs down the middle. The blade assumes a slight leafshaped outline and a ridge runs parallel to the edges. The object is largely free from patination.

Length 151 mm Max. width of blade 23 mm

" of tang 29 mm " thickness at that point 4 mm

B.M.1854. 7-14. 288

Bibliography:

British Museum Later Prehistoric Antiquities of the British Isles (1953) Pl.V,6.

Kemble Horae Ferales (1863), 165, Pl.10:28

No.33 TANGED KNIFE (Fig.52 no.33) The edges of the tang have been hammered up somewhat to give the appearance of slight flanges. The blade tapers from the shoulder towards the tip which has suffered some damage. It is lozenge in section and in the centre two grooves extend for nearly its entire length to emphasise a midrib.

Length 122 mm B.M.1854. 7-14. 290 (Box 642)

" of tang 26 mm

No.34 TANGED KNIFE (Fig.52 no.34) Only the lower portion of the blade has survived. This is plain and is extremely thin, only about 2 mm in maximum width. From the fractured end a narrow ridge runs down the centre of the blade for a distance of about 15 mm.

Present length 63 mm B.M.1883. 2-18. 17

No.35 TANGED KNIFE (Fig.52 no.35) The blade is a pointed oval in section. It tapers from shoulder to point but the tip is now wanting. The object is largely free from patination.

Present length 122 mm B.M.1854. 7-14. 289 (Box 642)

Hodges (1956, 39, fig.4) thought that the tanged knives evolved from small knives with riveted tangs of Middle Bronze Age date, but it appears more likely that they evolved out of Class I swords. The distribution is widespread throughout the British Isles, but does tend to show a concentration in Ireland and the south of England.

VESSELS OF SHEET BRONZE

BUCKETS

Within the past generation large vessels of sheet bronze have been the subject of two important studies, firstly in 1930 by E. T. Leeds and secondly in 1957 by Professor C. F. C. Hawkes and Miss M. A. Smith. As a result of these papers, especially the latter, on which these notes are largely based, our knowledge of both cauldrons and buckets, their origins, and chronological status has been put on a sound and firm basis. Within the British Isles the distribution of these vessels is largely confined to Ireland and Leeds (1930, 20) considered this country as the centre of their production. Leeds (1930, 25) saw the prototypes of the buckets in the Italian situlae of Iron Age date such as that from the Etruscan tomb of Tomba del Duce at Vetolunia, a site dated to about 650 B.C. In particular Leeds drew attention, as a mark of similarity, to the distinctive angle plates that that bucket possessed (Pl.9:2). The recent study by Hawkes and Smith has corrected these views and has shown that the prototypes occur not in the Italian Iron Age of the 7th century, but in the Late Urnfield cultures of central Europe of the 8th. The prototype has been termed the Kurd type, its continental distribution is east central Europe (fig.4 and chronologically it can be assigned to the first half of the first millennium B.C. (Hawkes and Smith, 1957, 134).

In this connexion the Dowris bucket is of extreme importance for as Hawkes and Smith have proved it is not of the native series studied by Leeds but closely resembles the continental form that inspired their manufacture. In this country it stands unique, Britain, too, possesses only one specimen, it comes from Nannau in Merionetshire (Hawkes and Smith 1957, 131-4, fig.1). It is likely that both are imports.

The Urnfield group of Kurd buckets is distinguished by ring handles riding in carriers of sheet metal (ribbon handle carriers) which are riveted to the body and neck of the vessel

and corrugations around the shoulder, but the latter feature is not always present. In addition the walls of the tub-shaped base are relatively high and the rivet heads are cone shaped and are set facing inwards (Hawkes and Smith 1957, 146). But of equal importance is the fact that Hawkes and Smith (p.139-40) have established a close parallel for the base angle plates among the material in the deposit, perhaps votive, in the Fliegenhöhle cave at St. Kanzian.[25] Here were found small, round, disks set between terminally riveted straps and Hawkes and Smith consider these objects as angle plates perhaps from the base of the fragmentary Kurd buckets which the deposit also yielded. This view is supplemented by the presence on the disks of a decorative design consisting of a central pellet and concentric rings. Both in shape and ornament these objects offer good parallels for the Dowris angle plates. The St. Kanzian Hoard belongs to the final phase of the Late Urnfield period, a period that began about the start of the 8th century and terminated with the commencement of Hallstatt/around 700 B.C. (Hawkes and Smith, 140).

C.

Morphologically the Dowris bucket departs from the more round shoulders of the Urnfield group and with its distinct angular shoulders assume a form more in keeping with the buckets of the Hallstatt C-D group. From this evidence Hawkes and Smith (p.140) have concluded that the Dowris bucket may have been manufactured not far from the Urnfield/Hallstattian transition, that is towards 700 B.C.

The base (no.37) and the two angle plates (no.38) are the remains of buckets of the native Irish/British series that developed out of the imported Kurd type.

No.36 (Fig.53) BUCKET. This vessel has recently been described in detail by Hawkes and Smith (1957, 134-7, Fig.2) and what follows is nothing more than a repetition of their account.

The bucket is made from very thin sheet bronze and apart from the handles, which are missing, it is in a good state of preservation. Part of the surface bears

an accretion of soot like material, and in a few places, on both base and sides, damages have been repaired in antiquity by riveting and patching. In height the bucket is 464 mm and the external diameter at the lip is 343 mm, at the neck 328 mm, and at the shoulder 381 mm. The everted rim, including the lip, is 21 mm high. The lip is 6 mm broad and bent out around a bronze wire to stiffen it. Just below the angle two low corrugations run around the neck. The upper portion is made from two equal sheets of bronze overlapped at the sides and riveted along two vertical seams. At the base it is joined horizontally by the same method. The base is fashioned from a single sheet. It is 89 mm high and it is about 190 mm in diameter at the bottom which is dished with a foot ring 32 mm wide along the edge. It appears that this foot ring was originally reinforced by a set of 7 equally spaced angle plates set radially around the edge. One has been fixed in a new position and only the inner strap of another survives. These base plates consist of a roughly circular disc which bears ornament consisting of a central pellet surrounded by two concentric circles. They were attached by means of rivets on both inward and upward projecting straps. The bucket had two handle carriers that were riveted on at the top of the vertical seams. On one side, 63 mm below the lip, 2 rivets, nearly 70 mm apart hold the lower corners of what remains of one attachment. On the other side 2 shoulder rivets occur, one grips a small piece of metal.

Cooke in his paper of 1849 stated that the finder broke off the handles and maintained that a loose hand that he kept within the bucket (our no.41) was one of the wrenched off handles. But as Leeds has recognised this is a cauldron handle (1930, 34, no.1) and despite the fact that it was at one time attached to the bucket in the British Museum (Guide, 1920 Pl.V:2) it has

nothing whatsoever to do with it. As Hawkes and Smith (p.137) rightly point out it is most unlikely that the bucket possessed handles at the time of its discovery because the hoard was lying in peaty soil, and if the handles were broken off their position should be clearly marked. On the Nannau bucket analogies, Hawkes and Smith contend that the Dowris vessel possessed handles consisting of a pair of cast bronze rings riding freely in handle carriers made of sheet bronze and fixed to the shoulder by rivets (p.137).

B.M. 54. 7-14, 313

Bibliography:

Armstrong, E. C. R. "The Early Iron Age in Ireland" J.R.S.A.I., 54 (1924), fig.1

British Museum Bronze Age Guide (1920) Pl.5, no.2

Cooke, Thomas L. "Bronze Antiquities found at Dowris" P.R.I.A., 4 (1848-50), 425

Hawkes, C.F.C. and Smith, M.A. "Some Buckets and Cauldrons of the Bronze and Early Iron Ages" Antiq. J, 37 (1957), 134-3, fig.2

Leeds, E. Thurlow "A Bronze Cauldron from the River Cherwell" Arch., 80 (1930), 36 no.9, Pl.8:2

No.37 (Fig.54 no.2) Base of BUCKET. This is formed from a single sheet of bronze, it is tub-shaped and stands approximately 120 mm high. The base is 230 mm in diameter, there are some repair patches present, and the centre is slightly domed. Along the edge, and about

33 mm in width, the base is raised slightly to form a flat topped foot ring. The base possesses a set of five angle plates and there are clear traces of the locations of a sixth. Assuming that these supports were placed at equal intervals it appears that the set originally consisted of eight. These plates have five parallel grooves and corresponding ridges, while the outside is curved to follow the buckets circumference. Projecting inwards along the base and upwards along the wall is a tongue like attachment. At each end these attachments were riveted to the bucket. Viewing the plates from the base they are T shaped. The edge of the mouth has been damaged and some rivets remain. At that point it is 300 mm in diameter.

B.M. 54. 7-14, 314

Bibliography:

Cooke, Thomas L. "Bronze Antiquities found at Dowris" P.R.I.A.4 (1848-50), 425 no.2

Leeds, E. Thurlow "A Bronze Cauldron from the River Cherwell" Arch., 80 (1930) 36, no.10 Pl.8:4

No.38 (Fig.54 no.3) Two ANGLE PLATES. These are plain and the plate is more or less rectangular in shape and measures about 45 mm by 22 mm. These plates formed part of the set for attaching to a bucket such as that just described.

B.M.

Bibliography:

Leeds, E. Thurlow "A Bronze Cauldron from the River Cherwell" Arch., 80 (1930), 36 no.9

No.39 (Fig.54 no.1) BRONZE VESSEL ? The round mouth of the vessel has an outurned rim and it is 273 mm in diameter. The walls are straigth and are formed of 2 pieces of sheet bronze joined vertically by overlapping

and riveting almost opposite each other. At the base the wall has been bent out to form a evenly splayed foot all round. This serves the function of a grip to which the base is attached. The latter is slightly domed and is formed of a number of pieces of bronze overlapped and riveted.

Max height 105 mm B.M. 54. 7-14, 316

This is an unusual vessel and without comparisons. It has been fashioned in a cruder manner than the buckets. It is difficult to suggest parallels but there is a small bronze cup that bears slight resemblance in shape and in the mode of attachment of the base to the walls forming part of the Murray Collection in the University Museum of Archaeology and Ethnology, Cambridge.

CAULDRONS

Leeds in his paper of 1930 divides cauldrons in two main classes, A and B. Both types are round bottomed and like the buckets and made from plates of sheet bronze held together by means of rivets. Class A, which can itself be subdivided, is distinguished by a short upright neck that is normally strengthened by corrugations. To form a rim the top of the neck is bent first outwards, then horizontally inwards and finally turned down and rolled round a bronze wire that encircles the cauldron mouth. As a result the rim possesses a flattened top

The handle rings, generally round in section, are held in place by a semi-circular sectioned tubular holder. This springs from about the middle of a long bar that grips the sides of the rim and extends below into a vertical tongue that reaches to the neck of the cauldron. The whole ring attachment was cast on in one piece. The metal was poured in from the top as is SHOWN by the remains of jets on the top of the ribs of some cauldrons.

In what Leeds considered to be the most primitive of the class A cauldron, his sub-class A1, the rings ride free between their staples and the rim top. Later bracings across the rim top were added and this culminated in a continuous bracing that distinguishes class A3. It is to class A1 that the Dowris cauldron (no.40) belongs.

Leeds (1930, 126) considered that, cauldrons were of Greek, and perhaps ultimately Oriental, origin. He further considered that cauldrons of class A were earlier that those of class B (p.15). In both conclusions he was right as the researches of Hawkes and Smith HAVE demonstrated. However, they have gone much further than Leeds and have most effectively traced the cauldrons back to their prototypes, and in addition have dated these prototypes securely against historical Mediterranean chronology. In western Europe the distribution of these cauldrons is largely confined to Ireland with southern BRITAIN a good second. Their distribution

does however extend down the European coast to France and Spain and on that account Hawkes and Smith (1957, 160) proposed the name "Atlantic cauldrons".

First Leeds and later Hawkes and Smith (175-6) place the Atlantic cauldrons of Class B. later than those of Class A. The latter authors have shown that cauldrons of similar form, but having reel-shaped flange-ended ring holders can be dated, on the evidence of painted pottery examples, to about the second quarter of the 7th century B.C. These probably had their origin in Crete or Rhodes and are accepted by Hawkes and Smith as the prototypes of the Class B cauldrons. This would date the first Irish examples to about 650 B.C. or slightly earlier.

In Class B the corrugated neck is entirely lacking, indeed a neck scarcely exists at all. The rim is everted at a slant. The staples are attached to the inner face of the rim and as a result of the methods employed in attaching the ring holder Leeds subdivided the class into two groups. Sub-class B.1 where the staples (no.41) resemble those of class A and are attached by the same method of running on, in sub-class B.2 the staple was cast as a separate unit and then fixed by some other means such as riveting.

No.40 CAULDRON (Fig.55) This has been damaged and the badly dented base gives a lop sided appearance to the vessel. There are also numerous small dents in the sides. Due to its damaged state it is difficult to obtain accurate measurements.

The body, originally round bottomed, has been built up in three rings. The base and the lower body portion are formed from a single sheet, but the upper portion consists of two sheets joined together on the vertical under the handles. From the top to the bottom the tiers telescope into each other and are held in place by means of flat headed rivets. The horizontal body join contains 26 rivets and the base join 35 rivets. Some repair patches were applied to the base apparently in antiquity.

Near the top the walls are bent inwards so as to form a shoulder. From the shoulder a straight neck, having three corrugations, and c.40 mm high, rose. Above in order to form a flat topped ring about 28 mm wide, it has been bent outwards, then horizontally inwards and finally downwards and underneath where it is bent around a bronze wire. Slight grooves occur on the neck and rim. Damage has resulted in the mouth, which was originally round, being now oval. It would appear to have been about 490 mm in external diameter. The rim has been cracked in many places especially in the neighbourhood of the handles.

The cast bronze ring handles are of plain round section 107 mm in external diameter and 11 mm thick. These are secured to the vessel by means of a staple cast on to the rim and neck. In section the staple is an inverted U-shape and externally is divided into three stout ribs. It springs from a long horizontal tubular grip that clasps the edges of the rim and continues on each side for some distance beyond the staple. In the centre a vertical tongue extends down the neck.

N.M.1

Bibliography:

Armstrong, E.C.R. "Some Recent Bronze Age Finds" P.R.I.A. 36c (1922), 136, Fig.1.

" " "The Early Iron Age in Ireland" J.R.S.A.I., (1924), Fig.5.

Leeds, E. Thurlow "A Bronze Cauldron from the River Cherwell" Arch., 80 (1930), 32, no.11

Robinson, Rev. T.R. "The Contents of an ancient Bronze Vessel ..." P.R.I.A., 4 (1948-50), 238.

No.41 CAULDRON (Fig.54 no.4) Fragment consisting of ring staple that is attached to part of the wall. This is flat topped and is formed of two pieces of sheet bronze and held in place under the arch by a flat topped rivet.

Externally the staple possesses three ribs and at each end there is a sharply angled flange. The staple is attached to a bar that grips the edges of the rim on one side. At the centre, a tongue extends down the edge of the vessel. On each side of the ribbed holder, for nearly the remainder of its length, the horizontal bars are joined by means of a flat transverse band.

This is portion of a B.1 cauldron.

B.M. (No Reg.no.)

Bibliography:

British Museum Bronze Age Guide (1920) Pl.V, no.2

Cooke, Thomas L. "Bronze Antiquities found at Dowris" P.R.I.A., 4 (1848-50), 425 no.1

Leeds, E. Thurlow "A Bronze Cauldron from the River Cherwell" Arch., 80 (1930), 34 no.30

No.42 Part of rim of CAULDRON (Fig.54 no.5) The upper surface is decorated by parallel lines of shallow round depressions. Underneath the edge is bent in and round.

This portion may come from a rim of a cauldron within the B class. The other small fragments may have been detached from a rim near the handle attachment.

B.M.

Bibliography:

Leeds, E. Thurlow. "A Bronze Cauldron from the River Cherwell" Arch., 80 (1930), 34 no.31

SOCKETED AXES

Thirty-five looped socketed axes have survived. Among these three classes can be distinguished, faceted axes of octagonal section, faceted axes of hexagonal section, and bag shaped axes. Apart from one or two exceptions (noted in the description of the individual objects) all the axes bear a dark patina. Each was cast in a two-piece mould as is SHOWN from the join along the sides. On the inside a longitudinal ridge extends up each wall from the base. These normally number three on each face and where that is the case the central ridge is the tallest. Such ridges probably gave a more firm grip to the shaft (Maryon, 1937, 214).

A number of the axes in the National Museum have been illustrated by Armstrong (1922, fig.2 and 3). The figure and object's number of those that can be identified is included in the description.

The figures in the left column are the height (top) and maximum width of cutting edge (bottom) given in millimetres.

The following six examples can, after Hodges, be termed faceted axes of octagonal section. Axes of this type occur commonly in Ireland and are usually of somewhat slender proportions. They normally possess a round mouth that is generally trumpet shaped. Externally, underneath the lip the axe often bears a moulding or a series of grooves. As the name implies, the distinguishing feature of the axe is a body of octagonal section.

Hodges (1956, 29) considers these axes as standing at the beginning of the native Irish series and that the faceted axe of hexagonal section and the bag shaped axes are probably derived from them. Butler (1958, 238) now thinks that several types of socketed axes in the British Isles are derived from north European prototypes that were imported in small numbers.

No.43 SOCKETED AXE (Fig.56 no.1) The mouth is 31 mm in external diameter with walls averaging 3 mm thick. Externally under the lip a collar surrounds the axe.

Above the cutting edge, a crack extends across most of the body.

85 N.M.I. S.A.57.i.A (Box 8)

53 Armstrong 3:19

No.44 SOCKETED AXE (Fig.56 no.2) The edge has been prised outwards, but it would appear that the mouth was originally circular with walls approximately 4 mm thick. Around the mouth an outward projecting lip occurs and there is a collar underneath.

80 N.M.I. S.A.57.i.A (Box 7)

50 Armstrong 3:23

No.45 SOCKETED AXE (Fig.56 no.3) A slight outward projection surrounds the mouth which is roughly oval in shape and is 26 mm in maximum length by 23 mm in maximum width, with walls 3 mm thick. The cutting edge is quite sharp.

61 N.M.I. S.A.57.i.A (Box 8)

50 Armstrong 3:18

No.46 SOCKETED AXE (Fig.56 no.4) The mouth tends to be oval and is 28 mm in maximum length by 25 mm in maximum width, with walls averaging 3 mm in thickness. Underneath, externally, three shallow grooves occur. In section the body tends to be sub-rectangular or approaching an octagon.

60 N.M.I. S.A.57.i.A (Box 8)

49 ? Armstrong 2:26

No.47 SOCKETED AXE (Fig.56 no.5) The mouth is 31 mm in maximum diameter with walls 4 mm thick. Underneath, on the outside, four grooves encircle the axe. The octagonal section of the body is not very pronounced.

71 N.M.I. S.A.57.i.A (Box 7)

51

No.48 SOCKETED AXE (Fig.56 no.6) with mouth 30 mm in external diameter by 23 mm internally. On the outside, under the mouth, seven grooves and corresponding ridges encircle the body. The lower portion is missing.

B.M.54. 7-14, 274

No.49 SOCKETED AXE (Fig.56 no.7) Although possessing an octagonal body this axe is of larger proportion than any of the previous examples and in proportion resembles some of the bag-shaped axes. The mouth is oval and has slight internal and external projection around the lip. It is 32 mm in maximum width and 47 mm in maximum length. At the top the walls are 6 mm thick and underneath these is a sunken moulding on the outside.

8 N.M.I. S.A.57.i.A (Box 7)

64 Armstrong 2:14

No.50 SOCKETED AXE (Fig.56 no.8) The mouth is 29 mm in maximum diameter with walls averaging 2 mm in thickness. Externally there is a collar underneath.

76 N.M.I. S.A.57.i.A (Box 7)

52 Armstrong 2:29

This is the only example of <u>faceted axe of hexagonal section</u> that the board contains. Hodges (1956, 31) considered these axes as a specifically Irish type and as transitional between the octagonal axe and the bag-shaped axe.

SOCKETED AXES: BAG-SHAPED.

The bag-shaped axe is well represented in the hoard. These are by far the most common form in Ireland, and are characterised by an oval or sometimes circular mouth on a body of oval section. They vary somewhat in length of neck above the loop, and in size. Some large examples, such as Fig. 56 no. 17, are over 100 mm. in height; others, such as Fig. 56 no.24, are only half that; in addition some are ornamented, others are plain. A complete study of the bag-shaped axe may reveal sub-types, but here the plain examples (nos.9 to 19, Fig.56) are dealt with first, next the axes that possess a collar on the outside extending from the edge of the mouth to about the top of the loop (nos.20-24), then two examples, nos.25 and 26, where the collar stands in isolation a short distance below the lip, and no.27 (Fig.56) with the collar again in isolation, but in this case surrounded by two slightly raised ridges on each side. In Fig.51 no.28 the raised band has disappeared and the loop is placed nearer to the top, but nevertheless an area is delimited by four grooves at the top and two at the bottom. The concluding seven axes are listed according to the number of grooves encircling the neck: nos.29 and 30 have two grooves each, nos.31 to 34 three grooves, and finally no.35 with four grooves. Fig.56 contains nos.9-27, Fig.51 nos. 28-35.

No.51 SOCKETED AXE (Fig.56 no.9) with oval mouth 43 mm in maximum length by 35 mm in maximum width. The walls average 3 mm in thickness. The cutting edge is blunt.

77 N.M.I. SA.57.i.A (Box 8)

58 ? Armstrong 2:18.

No.52 SOCKETED AXE (Fig.56 no.10). Oval mouth 42 mm in maximum length by 36 mm in maximum width with walls averaging 4 mm in thickness. The cutting edge has been damaged.

75 N.M.I. S.A.57.i.A (Box 7)

60 Armstrong Fig.2:13.

No.53 SOCKETED AXE (Fig.56 no.11). Mouth oval and is 39 mm in maximum length by 36 mm in maximum width with walls averaging 4 mm in thickness.

73 N.M.I. SA.57.i.A. (Box 8)

60 ? Armstrong Fig.2:12.

No.54 SOCKETED AXE (Fig.56 no.12). The mouth tends to assume a somewhat sub-rectangular shape and is 38 mm in maximum length by 30 mm in maximum width with walls 3 mm thick. The cutting edge has suffered some damage.

64 N.M.I. SA.57.i.A. (Box 7)

58

No.55 SOCKETED AXE (Fig.56 no.13). The mouth is almost oval and is 33 mm in maximum diameter with walls 3 mm thick.

52 N.M.I. SA.57.i.A (Box 7)

51 Armstrong 3:13.

No.56 SOCKETED AXE (Fig.56 no.14). The mouth is somewhat flaring and is 40 mm in maximum length by 36 mm in maximum width with walls about 4 mm thick. The lower portion is wanting.

B.M.1854.7-14.268 (Box 681)

No.57 SOCKETED AXE (Fig.56 no.15). Oval mouth 25 mm in maximum length by 21 mm in maximum width with walls averaging 2 mm thick.

For a bag-shaped axe the body is somewhat slender and the manner in which the tips of the edges curl upwards is unusual.

65 N.M.I.SA.57.i.A (Box 7)

43 Armstrong 2:16.

No.58 SOCKETED AXE (Fig.56 no.16). The mouth is almost circular and is 31 mm in maximum diameter with walls averaging 4 mm thick. The body tends to become oval in section.

84	N.M.I. SA.57.i.A (Box 7)
49	Armstrong 2:15.

No.59 SOCKETED AXE (Fig.56 no.17), with almost circular mouth 47 mm in external diameter with walls 5 mm thick. The cutting edge has suffered some damage.

This axe and the previous example show a somewhat slack outline in contrast to the normal bag-shaped axe.

106	N.M.I. SA.57.i.A (Box 7)
66	? Armstrong 3:17.

No.60 SOCKETED AXE (Fig.56 no.18). This axe suffered some damage. The mouth has been prised out and a large gap now exists in one side. Originally it appears that the mouth was oval and the walls average 2 mm thick.

62	N.M.I. SA.57.i.A (Box 7)
43	Armstrong 3:24.

No.61 SOCKETED AXE (Fig.56 no.19). The mouth is oval and is 31 mm in maximum length by 26 mm in maximum width. The walls are 3 mm thick and in one of the faces a gap exists.

In proportion to the body the cutting edge is unusually wide.

54	N.M.I. SA.57.i.A (Box 7)
50	Armstrong 2:23.

No.62 SOCKETED AXE (Fig.56 no.20). The mouth is 40 mm in external length with walls averaging 4 mm in thickness. One side bears a crack and the lower portion is missing.

B.M.1854.1-14.270 (Box 681).

No.63 SOCKETED AXE (Fig.56 no.21) with mouth 36 mm in maximum length by 32 mm in maximum thickness and walls averaging 5 mm in thickness. The lower portion is wanting.

B.M.1854.7-14.271 (Box 681)

No.64 SOCKETED AXE (Fig.56 no.22). This axe has been damaged, the side opposite the loop has been split down to about midpoint and is then prised out. A short distance below the mouth a low ridge encircles the axe giving a collar-like effect to the upper portion.

68 N.M.I. SA.57.i.A (Box 7)

57 Armstrong 2:20.

No.65 SOCKETED AXE (Fig.56 no.23) with oval mouth 35 mm in maximum length by 30 mm in maximum width.

61 N.M.I. SA.57.i.A (Box 7)

50 ? Armstrong 2:22.

No.66 SOCKETED AXE (Fig.56 no.24). Mouth oval and is 29 mm in external diameter by 22 mm internally.

50 N.M.I. SA.57.i.A (Exhibited)

47 ? Armstrong 3:12.

No.67 SOCKETED AXE (Fig.56 no.25). The mouth is 34 mm in maximum length by 27 mm in maximum width with walls about 4 mm thick. The lower part is wanting.

B.M.1854.7-14.272 (Box 681).

No. 68 SOCKETED AXE (Fig.56 no.26). The mouth is 37 mm in maximum length by 31 mm in maximum width with walls averaging 4 mm thick. The lower portion is wanting.

B.M.1854.7-14.273 (Box 681)

No.69 SOCKETED AXE (Fig.56 no.27),/The mouth, which tends to be somewhat trumpet-shaped, is damaged and portion has been bent outwards. The cutting edge is blunt.

61 N.M.I.SA.57.i.A. (Box 7)

49 Armstrong 3:15

No.70 SOCKETED AXE (Fig.51 no.28) with circular mouth 40 mm in external diameter and 31 mm internally. One of the faces has suffered some damage and a small part of the wall is missing. The surface is smooth and is largely free from patination.

83 B.M.1854.7-14.267 (Exhibited)

63

No.71 SOCKETED AXE (Fig.51 no.29). Mouth roughly circular and averaging 42 mm in maximum diameter with walls about 6 mm thick. Above the loop and directly opposite, the walls are hollowed down and are also thinner at these points.

81 N.M.I.SA.57.i.A (Box 9)

65 Armstrong 2:17.

No.72 SOCKETED AXE (Fig.51 no.30). Oval mouth 43 mm in maximum length by 34 mm in maximum width with walls 5 mm thick.

92 N.M.I.SA.57.i.A (Exhibited)

69 Armstrong 3:11.

No.73 SOCKETED AXE (Fig.51 no.31). Mouth is 41 mm in maximum length by 34 mm in maximum external width with walls about 5 mm thick. The lower portion has been broken off and is now wanting.

B.M.1854.7-14.269 (Box 681)

No.74 SOCKETED AXE (Fig.51 no.32), with almost circular mouth 41 mm in maximum diameter with walls 5 mm thick. Under the lip a collar of sorts surrounds the axe, below which are three grooves.

72 N.M.I. SA.57.i.A. (Box 8)

54 Armstrong 2:19

No.75 SOCKETED AXE (Fig.51 no.33), with almost circular mouth 34 mm in maximum diameter with walls 3 mm thick. The cutting edge has suffered some damage and is 50 mm. in maximum width.

59 N.M.I.SA.57.i.A (Box 7)

Armstrong 2:21

No.76 SOCKETED AXE (Fig.51 no.34). Oval mouth 33 mm in maximum length by 29 mm in maximum width with walls averaging 3 mm in thickness. On the outside, under the lip, the axe is encircled by two, and for most of the way, by three shallow grooves.

47 N.M.I.SA.57.i.A (Box 7)

49 ? Armstrong 3:16

No.77 SOCKETED AXE (Fig.51 no.35) with oval mouth 47 mm in maximum length by 38 mm in maximum width. The walls average 5 mm in thickness. Around the mouth the lip projects outwards slightly.

92 N.M.I.SA.57.i.A (Box 7)

66

SPEARHEADS

With the exception of No.1, which is a spearhead with lunate openings in the blade, all the Dowris spears belong to the intrusive leaf-shaped variety with perforated sockets. Not all are, of course, identical; any that possess features worthy of note are commented on. Except where otherwise stated, all bear a blackish patination and the edges are bevelled. Each was cast in a two-piece mould, as is ~~evidenced~~ SHOWN by the ridge of metal that protrudes through the joint and has not been completely obliterated on the socket. The leaf-shaped spearheads vary in size from large examples about 320 mm in length such as no.36 to miniature pieces 100 mm long like no.35.

In order to place the Dowris spears in their proper context it was thought useful to give, at the outset, a brief statement concerning the history of the bronze spearhead in Great Britain and Ireland.

The development and evolution of the spearhead in Britain and Ireland has been the subject of two major studies, one by Greenwell and Brewis (1909) and the other by Evans (1933). Specific types have been briefly treated by Hawkes in 1941 and Cowan in 1948, ~~which~~ WHILE Hodges has summarised THE accumulated data (1956,34-5).

Spearheads must be considered under two series - native and intrusive. The work of Greenwell and Brewis has shown that the native series developed out of the flat dagger in the Early Bronze Age. This development started off with a tanged head (Class I) that was later augmented by the addition of a ferule (Class IA) and finally with a socket cast in one piece with the blade and normally perforated for attachment to the shaft (Class II) At a later stage in this evolutionary sequence the mode of attachment was altered, the socket perforations were replaced by cast on loops and the socket was made to extend into the blade (Class III). Spearheads of this class can be assigned to a Middle Bronze Age

date (Evans and Mitchell, 1954, 59). All the foregoing classes are characterised by a kite-shaped blade.

With the native series reaching such a stage of development as Class III represents, a completely new type of spear was introduced from the Continent and the date of its arrival must also be placed within the Middle Bronze Age (Cowan 1948, 233-4). This, Class V in the Greenwell and Brewis typology, is characterised by a leaf-shaped blade with a transversely perforated socket that was affixed to the shaft by means of pegs or rivets. Greenwell and Brewis did not recognise this, for they considered all spearheads in a gradually evolutionary sequence, and it was really Estyn Evans (1933, 187 ff.), anticipated by Coffey (1893-6), who demonstrated the true nature of the events. Evans has gone further and has shown that a certain amount of interaction between the native, represented by Class III, and the intrusive series (Class V) occurred. Instead of being in the direct line of evolution towards the leaf-shaped blade, Class IIIA spearheads, where the loops have moved up to the base of the blade that still shows traces of the old kite-shaped form; Class IV, leaf-shaped blades with free loops on the socket (Hawkes 1941, 128-31); their direct successors where the basal loops become incorporated in the wings and are completely functionless; and finally spearheads with protected openings in the blades, are the products of this crossing. It seems that the hybridisation occurred in the Middle Bronze Age (Cowan 1948, 234). Towards, and in the beginning, of the Late Bronze Age the other types gradually die out and the intrusive variety (Class V) dominates, as the occurance of so many in this hoard testify.

With each description the dimensions are given in millimetres, as follows: right column - overall length (top) and length of socket; middle column - maximum diameter of socket (top) and maximum width of blade; and on the left the maximum thickness at that point and Museum Registration number.

No.78 SPEARHEAD (Fig.57 no.1), with lunate openings in the wings. The blade, which is ogival in shape, has bevelled edges and on the inside a shallow groove follows their outline. At the base of the midrib a low ridge occurs and this runs round the edges of the openings to give a flange-like effect. The thickness of the wings is carried down the sides of the socket to the perforations in the form of a raised band. Most of the surface bears a darkish patination.

348	30	22
73	76	B.M. 1854. 7-14.229 (Exhibition)

Bibliography:

British Museum. Bronze Age Guide (1920) Pl. 8:1.

" " Later Prehistoric Antiquities of the British Isles (1953), Pl.5:1.

Greenwell and Brewis. "The Origin of the Bronze Spearhead in Great Britain and Ireland", Arch. 61, (1909) Fig.39.

As we have seen, such spearheads are the products of that crossing of native and foreign types, and Evans considers them to be of Irish origin. It must however be remembered that such spears occur in Britain in early Late Bronze Age hoards such as Wilburton and Guilsfield. The distribution of the type is largely Irish and Highland Britain (Evans, Fig.2), and at least one example wandered as far as Southwest Spain, where it was dredged up with other objects at the mouth of the Huelva river. (Erbert, 1926, Tafel 130q.)

No.79 SPEARHEAD (Fig.57 no.2). There are tiny pits over most of the surface, but it is largely free from patination. The edges are bevelled and towards the tip the blade narrows, giving an ogival outline.

139	23	
43	133	N.M.I. W.137. B.34 (Box 9).

No. 79 SPEARHEAD (contd.)

While this object is a socketed spear of the intrusive class, the ogival outline of the blade may owe its origin to the form of the blade, of the lunate spears such as No. 78. Greenwell and Brewis (1909 p.456) thinks that these small spears are late and are nothing more than one of the many minor varities resulting from modification of standard forms by the individual maker. A good parallel for No. 2 is an example from the River Thames at Isleworth (Greenwell and Brewis, 1909, Fig.67).

No.80 SPEARHEAD (Fig.57 no.3). The surface possesses a dark patination throughout and the edges are bevelled. The wings are, so to speak, set on bands on each side of the midrib and these bands extend down to the rivet holes.

143	26	
45	32	N.M.I. SA.57.i.A (Box 8).

Raised bands along the midribs and socket do not appear to be an original feature of the intrusive spearhead and can best be considered as the result of borrowing from the native variety where, for instance, they occur on spears with loops on the sockets (Class III). As E. Evans pointed out (op.cit., 191), such features help to distinguish spears, such as Dowris 3 and 9, from the pure continental form. In a general way this spear belongs to Greenwell and Brewis Class VA.

No.81 SPEARHEAD (Fig.57 no.4). The edges of the socket perforation bulge outwards slightly.

264	27	-
68	41	N.M.I. R.1961 (Box 9)

This spearhead with its narrow blade widening from both ends to reach its maximum width at about midpoint appears to be a derivitive from the ordinary leaf-shaped

No.81 SPEARHEAD (contd.)

intrusive variety in which the blade reaches its maximum width at a point nearer its base. Raftery (1951, 163) states that spearheads such as this example have a southern and midland distribution, while the other form has a northern distribution. Both types, if types they are, tend to merge into one another, and it is often difficult to distinguish the slender variety. Numbers 82, 83, 84 and 88 may belong to the latter class.

No.82 SPEARHEAD (Fig.57 no.5). The edges have been drawn out and have suffered some damage, especially on the right side. There are patches of verdigris over parts of the surface.

190	30	-
60	33	B.M. 54. 7-14. 219.

No.83 SPEARHEAD (Fig.57 no.6). On the right side the edge has been slightly damaged.

151	25	-
50	28	N.M.I. SA. 57.i.A (Box 10)

No.84 SPEARHEAD (Fig.57 no.7). The right edge is almost straight and this gives a slight lop-sided effect to the blade. In antiquity the socket suffered some damage and an aperture has been repaired by running in molten metal. A moulding runs around the outside of the socket mouth. The midrib cavity extends into the wings for a short distance on each side. In design this spearhead approaches sub-type VB.

132	27	-
45	45	N.M.I. SA.57.i.A (Box 10)

No.85 SPEARHEAD (Fig.57 no.8) cannot be traced in the Museum, illustration based on sketch in Museum Register.

336	29	-
82	72	B.M. 83.2.18.7.

No.86 SPEARHEAD (Fig.57 no.9). Slightly damaged and at about midpoint the central rib bears a crack. At the base of the rib a low ridge occurs and its width is continued down the sides of the sockets to the perforations in the form of a band. The holes have a raised moulding surrounding the edge on the outside.

320	28	-
81	57	N.M.I. SA.57.i.A (Exhibited)

Like no.80 the ridges at the base of the midrib and the socket band betray influence from the old native spearheads.

No.87 SPEARHEAD (Fig.57 no.10) with lead-shaped blade and perforated socket.

248	26	-
67	50	N.M.I. SA.57.i.A (Exhibited)

No.88 SPEARHEAD (Fig.57 no.11). Leaf-shaped and with perforated socket.

245	28	-
72	50	N.M.I. SA.57.i.A (Box 8)

No.89 SPEARHEAD (Fig.57 no.12). The socket has suffered some damage and three holes have been plugged with metal in antiquity. The blade assumes a willow-leaf shape and is somewhat similar to no.4.

220	30	-
68	40	N.M.I. SA.57.i.A (Box 8)

No.90 SPEARHEAD (Fig.57 no.13). Has suffered some damage and the blade is slightly bent. Portion of the wings adjoining the midrib is hollowed.

187	27	-
51	38	N.M.I. SA.57.i.A. (Box 10)

No.91 SPEARHEAD (Fig.57 no.14). There are three small holes on one side of the blade. The midrib cavity extends for a short distance into the wings.

195	25	-
57	38	N.M.I. SA.57.i.A (Box 10)

No.92 SPEARHEAD (Fig.57 no.15). Part of the surface bears traces of verdigris.

186	27	-
53	43	N.M.I. W.66 (Box 9)

No.93 SPEARHEAD (Fig.58 no.16). The midrib cavity extends into the adjoining wings.

179	28	-
52	45	N.M.I. SA.57.i.A (Box 10)

No.94 SPEARHEAD (Fig.58 no.17). The portion of the wings adjoining the midrib is hollowed.

177	27	-
50	39	N.M.I. SA.57.i.A (Box 10)

No.95 SPEARHEAD (Fig.58 no.18). Underneath the wings of the blade a ridge of metal that protruded through the mould joint occurs on the socket.

167	26	-
49	39	N.M.I. SA.57.i.A (Box 10)

No.96 SPEARHEAD (Fig.58 no.19) The midrib hollow extends for a short distance into the wings.

156 26 -

47 35 N.M.I. S.A.i.A (Box 10)

No.97 SPEARHEAD (Fig.58 no.20) The edges are blunt and have suffered some damage on the left side.

154 26 -

53 33 N.M.I. S.A.57.i.A (Box 10)

No.98 SPEARHEAD (Fig.58 no.21) Leaf-shaped spearhead with perforations in the socket.

151 26 -

46 32 N.M.I. S.A.57.i.A (Box 8)

No.99 SPEARHEAD (Fig.58 no.22) Leaf-shaped blade and with perforations in the socket.

143 24 -

48 36 N.M.I. S.A.57.i.A (Box 8)

No.100 SPEARHEAD (Fig.58 no.23) The midrib cavity extends for a short distance on each side into the blade. There is a slight ridge around the edge of the socket perforations but this may have been caused subsequent to finding.

149 25 -

52 41 N.M.I. W.35 (Box 9)

No.101 SPEARHEAD (Fig.58 no.24) with leaf-shaped blade and perforated socket at the mouth of which a ridge occurs on the outside.

130 24 -

41 34 N.M.I. S.A.57.i.A (Box 8)

No.102 SPEARHEAD (Fig.58 no.25) Near the tip the midrib has been flattened slightly on each face.

138 22 -

42 33 B.M.1854. 7-14, 221 (Box 681)

No.103 SPEARHEAD (Fig.58 no.26) A slight moulding surrounds the mouth of the socket.

135 25 -

43 28 N.M.I. S.A.57.i.A (Box 10)

No.104 SPEARHEAD (Fig.58 no.27) At the sides the socket has been flattened and as a result the mouth is no longer circular. The wings adjoining the blade are hollowed.

125 - -

36 28 N.M.I. S.A.57.i.A (Box 10)

No.105 SPEARHEAD (Fig.58 no.28) with leaf-shaped blade and perforated socket.

112 27 -

36 27 N.M.I. S.A.57.i.A (Box 10)

No.106 SPEARHEAD (Fig.58 no.29) with leaf-shaped blade and perforated socket.

107 24 -

28 30 N.M.I. S.A.57.i.A (Box 10)

No.107 SPEARHEAD (Fig.58 no.30) The extreme tip of the blade is wanting, the edges have been damaged but do not appear to have been bevelled.

165 20 -

33 40 B.M.1854. 7-14, 220 (Box 642)

No.108 SPEARHEAD (Fig.58 no.31) Like no.30 the edges of the blade are not bevelled but the wings taper from midrib to edge. Parts of the surface are free from the dark patination.

147 24 -

42 36 B.M.1883. 2-18, 8 (Box 681)

No.109 SPEARHEAD (Fig.58 no.32) A distinct ridge runs parallel to the edges.

143 26 -

37 39 B.M.54. 7-14, 230 (Box 642)

Like the straps already referred to when discussing nos. 80 and 86, the raised rib on the inner face of the bevel is a feature of the native series and are especially characteristic of the earliest looped spears (E. Evans 1933, 190). This spearhead can, therefore, be regarded as a native modification of the intrusive form.

No.110 SPEARHEAD (Fig.58 no.33) A low ridge encircles the base of the socket and another ridge runs up the socket.

120 24 -

38 35 B.M.1854. 7-14, 222 (Exhibition)

No.111 SPEARHEAD (Fig.58 no.34) The blade is not truly leaf-shaped.

118 28 -

28 33 B.M.1854. 7-14, 223 (Box 642)

No.112 SPEARHEAD (Fig.58 no.35) Part of the surface bears an accretion of verdigris.

100 22 -

34 28 B.M.1883. 2-18, 9 (Box 642)

No.113 SPEARHEAD (Fig.58 no.36) This object has suffered some damage and both the blade and socket have been broken across.

320 30 -

87 60 B.M.1854. 7-14, 217 (Box 642)

Bibliography:

British Museum Bronze Age Guide (1920), 8:3

TRUMPETS

Irish bronze trumpets have been studied by MacWhite (1945, 85-106) who divides them into three groups, A, B and C. Group A contain trumpets which are either plain or decorated with incised motives. This group is mainly concentrated in the North-East. Group B trumpets, characterised by the presence of conical spikes, have a limited distribution in the south west. Group C is a hybrid A - B group and has a midland distribution. Typologically Mac White (op. cit.88) views this group as an offshot from the A Group but influenced by Group B. Each of these groups can be divided into sub-types. Following this classification the Dowris trumpets have been set out according to their Group and Type. Unless otherwise stated all the trumpets bear a black patination and were cast in a two piece mould.

Nos. 1 and 2 (Fig. 59) belong to Mac Whites group A 1. Trumpets of this type are horn-shaped and have a raised moulding in the centre. Between this and the mouth there is a loop.

No. 3 (Fig. 59) seems to belong to Type A S. This type consists of trumpets with side blow. The narrow end is closed, it is globular in shape and is normally surmounted by a loop. Between this and the mouth-aperture there is a loop, which is sometimes, as in No 3, placed at the base of the dome.

Five trumpets Nos. 7 - 11 can be assigned to Type B.1 These trumpets are also horn shaped but usually have spikes surrounding the body at each end. Above the spikes at the narrow end four holes often occur, they may have been connected with the insertion of a mouth piece.

The six trumpets Nos. 12-17 comprising Fig. 61 belong to Type A - B.1 . In shape they resemble Type A.1, the distinguishing feature being the conical rivets of Group B.

Nos. 18 - 23, and perhaps the three fragments Nos. 24-6, are Type A - B s (Fig. 62). These are side blow trumpets. At the wide end the body is decorated with spikes but not as prominent as those foun in the B. Group. The closed end may be cone shaped or slightly conical and some bear a loop on the top. There is another loop between this end and the aperture.

According to Mac White (op. cit., 93) the A Group is chronologically a little earlier than the B Group and its prototype can be traced to the Scandinavian luren of Period V. On the other hand Hencken (1951., 57) while agreeing to the Scandinavian derivation, is inclined to the view that the Irish trumpet prototypes are best represented in the simpler luren found in South Sweden and Denmark and those assigned to Period III. If Hencken's view is accepted it means that Group A trumpets were in use some time before 800 B.C. (Hencken op. cit., p. 58). However, the distribution of this type of trumpet and Class I sunflower pins closely correspond and, on that ground Hodges (1956, 43) prefers Mac White's hypothesis.

Trumpets of Group B may be native in origin and just a translation into bronze of an organic prototype, such as a cow's horn, under the impetus of Group A (Mac White op. cit., 93). The conical headed rivets of Late Urn field central Europe seem to provide the origin for the spikes (Hawkes and Smith op. cit., 186). These did not come direct, but by way of Scandinavia.

From the accumulated data it can be stated that the prototypes of the Irish Bronze trumpets are to be found in Scandinavia. If Hencken's deductions are correct it would mean that Group A trumpets were in use here in our Period I. If we follow Mac White's Period V derivation, and there seems to be something in favour of so doing as other Northern imports were arriving at about the same time (p.42ff above), the Group A trumpets would have been initiated around 700.

This group brought about the impetus for the native development of Group B, which also possessed a Scandinavian derivative in the spikes. In turn the B group influenced the A Group in the ornamental field, and this resulted in the hybrid A.B. Group.

No 114 TRUMPET (Fig. 59 No 1) Type A_1 The raised moulding possesses three grooves. The bell end is 60 mm. in external diameter by 56 mm. internally. Below the edge there are two perforations opposite each other and just underneath a series of eight low knobs encircle the body.

Bibliography: N.M.I. S.A.57. i. A. No 1

Armstrong, E.C.R., P.R.I.A., 36c (1922), Fig. 1:9

Mac White, Eoin, J.R.S.A.I., 75(1945), 102. Fig. 8:9

Armstrong's figure has been reproduced by Mac White who retains Armstong's illustration numbers and describes the objects briefly on pp. 102 (Fig. Nos. 1 - 3) and 103 (Fig. Nos. 4 - 13)

No 115 TRUMPET (Fig. 59. No 2) Type A_1. Slightly damaged and the mouth piece end is wanting. A short distance below this end a raised grooved band occurs. This carries a loop set at right angles to the length of the trumpet. Further down there is a plain band. This serves the function of joining two pieces of the trumpet together. Between these bands it appears that another join was effected by means of "running on". At the curve a large hole appears to have been repaired in antiquity. The bell end is 59 mm. in external diameter by 54 mm. internally. Around the mouth a spread of metal occurs and there are two holes opposite each other.

N.M.I. S.A. 57.1.A

Bibliography:

Armstrong, op. cit., No. 8

Mac White, op. cit., 103, No 8

No 116 TRUMPET (Fig. 59 No 3) Type AS. The surface is largely free from patination. The bell end is 67 mm. in maximum diameter and 63 mm. internally. On the outside there is a slight lip. The blow hole is 52 mm. in length by 35 mm. in width. The narrow end is closed and is globular in shape. At its base there is a loop and a low ridge encircles the trumpet at that point. There may have also been a loop on the top of the head. A distinct ridge, indicating the mould joins, runs for the complete length on the inner and outer curves. Between the aperture and the bell end the trumpet has been broken but has been repaired, apparently in antiquity. Opposite the aperture a small hole appears to have been filled.

N.M.I. W.11 (Ex)

Bibliography:

Armstrong, op. cit., Pl 3 (at bottom)

P " Ancient Irish Trumpets" D.P.J.,2 No 56 (1833), 27 (27-7-1833) Fig. 2

No 117 TRUMPET (Fig. 59 No 4) This object consists of a slightly concave cylindrical piece of bronze 215 mm. long. At both ends a moulding occurs and this bears two decorative bands consisting of three grooves each. The ends are 37 mm. in external diameter by 31 mm. internally and each contains a perforation set on opposite faces and about midway between the decoration.

On account of its decoration it seems feasible to assign this fragment to Group A and it may have served the function of some sort of connecting piece.

B.M. 1883. 2 - 18. 3

Bibliography:

British Museum. The Later Pre-historic Antiquities of the British Isles (1953) Pl. 5:14

No 118 TRUMPET (Fig. 59 No. 5) Practically identical in both shape and decoration with the previous example.

Length 217 mm. N.M.I. S.A. 57.i.A.

Bibliography:

Armstrong, op. cit., Fig. 1: 7

Kemble Horae Ferales, 171-2, Pl 13:3

Mac White, op. cit., 103

No 119 TRUMPET (Fig. 59 No 6). Both ends are wanting and for most of its length this trumpet is straight, only a slight bend occuring towards the bell-end. The trumpet consists of two members joined at about mid-point. The narrow portion is somewhat similar to the two fragments Nos. 4 and 5 just described except that the end mouldings are plain. On the lower part, just below the join, a two ridge moulding occurs and near the fractured end there is a three ridge moulding. Between the mouldings there are two loops set opposite each other.

This trumpet is unusual, if not unique, but on decorative grounds it can be assigned to Mac White's A Group.

N.M.I. S.A. 57. i.A.

Bibliography:

Armstrong, op. cit., Fig. 1:13

Kemble, Horae Ferales, 172, Pl. 13:4

No 120 TRUMPET (Fig. 59 No 7) Type B1 The bell end has been damaged and is now irregular. Underneath eight conical projections occur, while at the narrow end four similar projections occur. There is a round hole above each of the latter.

B.M. 1854. 7-14. 174

No 121 TRUMPET (Fig. 60 No 8) Type B_1 In good state of preservation and the surface is free from patination. At the mouth the edges widen out slightly and it is 44 mm. in external diameter by 38 mm. internally. Underneath there are four holes, some with jagged edges and below this 4 spikes averaging 4 mm. in height. The bell end is 86 mm. in external diameter and 81 mm. in internal diameter. There are 6 spikes about 3 mm. in height underneath.

N.M.I. 101

No 122 TRUMPET (Fig. 60 No 9) Type B_1 In places the surface is slightly rough. The bell end is 100 mm. in maximum diameter by 9 mm. in internal diameter. Underneath 6 spikes averaging 16 mm. in height occur. The mouth is plain and part of the walls have been broken off. Two irregular perforations occur and there were probably others on the part that is now broken off. These holes could be the result of cutting off spikes. This end is 37 mm. in maximum diameter and the walls are only about 1 mm. thick.

N.M.I. S.A. 57.1.A.
(Exhibited)

Bibliography:

Armstrong, op. cit., Fig. 1:6

Mac White, op. cit., 103

No 123 TRUMPET (Fig. 60 No 10) Type B_1. In much damaged condition. It has been broken across at about midpoint and a large part of the body is missing. The object has also been crushed. There are six holes at the mouth. At the bell end the walls are 4 mm. thick.

B.M. 1854. 7 - 14. 175 (Box 679)

No 124 TRUMPET (Fig. 60 No 11) Type B_1. Has been damaged and is broken across at about midpoint. The bell end is 93 mm. in external diameter and 87 internally, underneath two holes have been filled in antiquity. Towards the narrow end the walls widen, there are 4 perforations

present but the outer casing of one has been broken off. The mouth is 45 mm. in external diameter by 40 mm. internally.

B.M. 1854. 7-14. 176 (Exhibited)

No 125 TRUMPET (Fig. 61 No 12) Type A.B_1. The original mouth piece appears to have been broken off and a new one cast on. The moulding consists of four ridges. The bell end is surrounded by 4 spikes each about 4 mm. long. It is 57 mm. in external diameter by 54 mm. in internal diameter.

N.M.I. S.A. 57.i.A. No 2

Bibliography:

Armstrong, op. cit., Fig. 1:2

Mac White, op. cit., 102

No 126 TRUMPET (Fig. 61 No 13) Type A-B_1. The mouth piece is wanting. On the body curve on each side there are 4 rounded knobs. 4 spikes surround the bell end which is 63 mm. in external diameter by 55 mm. internally.

N.M.I. S.A. 57.i.A. No 3

Bibliography:

Armstrong, op. cit., Fig. 1 No 4

Mac White, op. cit., 103

No 127 TRUMPET (Fig. 61 No 14) Type A-B_1. Originally 4 spikes surrounded the bell end but one of these has been broken off. This end is 65 mm. in external diameter by 46 mm. internally.

N.M.I. S.A. 57.i.A. No 4

Bibliography:

Armstrong, op. cit., Fig. 1:3

Mac White, op. cit., 102:3

No 128 TRUMPET (Fig. 61 No 15) Type A-B_1. This trumpet has been broken across at about midpoint. At the bell end there is a spike 22 mm. high and a perforation and it appears that there was another spike now broken off. This end is 57 mm. in external diameter by 53 mm. internally.

B.M. 1883. 2-18. 2 (Exhibited)

No 129 TRUMPET (Fig. 61 No 16) Type A-B_1. This trumpet has been damaged especially on the inner side of the body curve. The bell end has been flattened somewhat and at that point the wall is 2.5 mm. thick. Underneath 4 spikes averaging 10 mm. in length occur and on each side of the body there are 3 rounded projections.

B.M. 1854. 7-14. 177 (Box 679)

No 130 TRUMPET (Fig. 61 No 17) Type A-B_1. Perfect with 3 projecting knobs on each side of the body and 4 spikes around the bell end. The body seems to have been repaired below the loop.

This trumpet was destroyed during the 1939-45 war and the drawing is based on a sketch and measurements in the Museum Register and Guide.

B.M. 1854. 7-14. 178

Bibliography:

British Museum Bronze Age Guide (1920) Pl. 8:4

No 131 TRUMPET (Fig. 62 No 18) Type A - Bs. The closed end has suffered some damage and has been broken across at the blow hole. Below the lip of the bell-end 4 conical spikes encircle the body.

Not available for examination, illustration based on sketch and measurements in Museum Register.

B.M. 1883. 2-18.1

Bibliography:

British Museum Bronze Age Guide (1920) Pl. 8:8.

No 132 TRUMPET (Fig. 62 No 19) Type A-B_s. The dome shaped cap bears a loop. A short distance below this end the trumpet has been broken across but this has been repaired by the insertion of a band. The bell-end is surrounded by a collar on which a loop is set at right angles to the length of the trumpet. This collar may be a recent addition. This end is 63 mm. in external diameter and 59 mm. in internal diameter.

N.M.I. S.A. 57.1.A.

Bibliography:

Armstrong, op. cit., Fig. 1:12

Mac White, op. cit., 103

No 133 TRUMPET (Fig. 62 No 20) Type A-Bs. Originally a loop surmounted the closed end and surrounding the body at the base of the dome there is a ridge. The bell end is 57 mm. in external diameter by 54 mm. internally. Underneath 4 spikes occur.

N.M.I. S.A. 57.1.A.

Bibliography:

Armstrong, op. cit., Fig. 1:11

Mac White, op. cit., 103

No 134 TRUMPET (Fig. 62 No 21) Type A-B_s. Part of the domed head has been broken off. The bell end, which is 63 mm. in external diameter by 59 mm. internally, is surrounded by 4 spikes 4 mm. high and a short distance further down there are 2 holes opposite each other.

N.M.I. S.A.57.1.A

Bibliography:

Armstrong, op. cit., Fig. 1:10

Mac White, op. cit., 103

No 135 TRUMPET (Fig. 62 No 22) Type A-Bs. The closed end is flat topped and bears a loop. There are 4 small

spikes, averaging 4 mm. in height around the bell end. This is 52 mm. in external diameter by 49 mm. in internal diameter.

N.M.I. S.A. 57.i.A

Bibliography:

Armstrong, op. cit., Fig. 1:5

Mac White, op. cit., 103

No 136 TRUMPET (Fig. 62 No 23) This trumpet has been broken across at about mid-point on the mouth aperture and the narrow end is now wanting. The bell end is 60 mm. in external diameter by 55 mm. in internal diameter. Underneath there are 4 spikes averaging 8 mm. in height. It appears that this portion can be assigned to the A-B_S type.

N.M.I. S.A. 57.i.A.

Bibliography:

Armstrong, op. cit., Fig. 1:1

Mac White, op. cit., 102

No 137 TRUMPET (Fig. 62 No 24). Closed end of trumpet surmounted by a loop. There is evidence of an ancient repair under the body, and part of what may be the casting core still adheres to the inside.

B.M. 1854. 7.14. 180 (Box 681)

No 138 TRUMPET (Fig. 62 No 25) Top of closed end of trumpet. It contains two perforations which suggests that it originally possessed a loop.

B.M. 1854. 7-11. 181 (Box 681)

No 139 TRUMPET (Fig. 62 No 26) Only the closed end portion of this trumpet from about midway and the mouth aperture survives. This is in a damaged state and the

dome shaped end, which possesses a loop has been prised out.

B.M. 1854. 7-11. 179

It is likely that this and the two foregoing fragments belong to type A-B_S.

CROTALS

These are gourd-shaped or spherical hollow objects with a loose rattler of bronze or stone within and except where otherwise stated all bear a black patination and are well preserved. In shape and size they vary but slightly, some tend to narrow into a "neck" thus giving a somewhat pear-shaped effect but this is not very pronounced. The length of the body remains very consistent at about 120 mm. or perhaps 1 or 2 mm. more. The diameter of the body is also fairly constant averaging between 60 and 65 mm. The face of the broad ornamented end is circular and is in each about 20 mm. in diameter. Out of the centre a loop projects, this contains a free running ring. Underneath each bears ornament consisting of grooves with corresponding ridges circling the body. One (No. 41 Fig.52) is unique in that it possesses vertical as well as horizontal grooves. The number of grooves remains constant at either 12 or 14 and on this basis the group has been divided in two classes. This is mainly for convenience as it is unlikely that any cultural or chronological significance can be attached to it. Armstrong (1922, 141) stated that the crotals with 14 ribs appeared to him to have been cast in a single mould, those with 12 in a different type mould. But this does not seem to be the case.

The following technical report on the method of manufacturing crotals has been prepared (through the good offices of Mr J.W. Brailsford) by Dr. A.E.Werner and Mr. Herbert Maryon of the Research Laboratory, British Museum.

SIX BRONZE "CROTALS" (OR "RATTLES") FROM COUNTY OFFALY - B.M. COLLECTION

Method of Manufacture

Each object was cast in a two-piece mould. The core was supported by a flat strip of bronze or iron, measuring about ½ inch by 1/8 inch, which penetrated the core from side to side, and was gripped by the outer mould. This is evident in Nos. 54.7 - 14. 14 and 15, but traces are present in all the others. Lips of wax, intended to be replaced by bronze, were built up on either side of the projecting ends of the core support. After the core had been raked out, the bronze lips would be tapped down in order to fill up the gap left when the core support had been removed.

As a rule, the staple for the suspension ring was not soundly constructed. Sometimes it was made separately, fitted into the neck of the casting above a pad of clay, and a little molten metal poured round it in order to fix it in position. In Nos. 54.7 - 14. 14 and 15, the loop was broken away later but traces of its existence may be seen in No. 15 whereas in No. 14 the surface has been hammered nearly smooth. The loop on No. 83.2-13.5 is a separate casting. Its inner extremity projects strongly inside the work, and it may be rocked. The loop on No. 54. 7-14.10 is a poor effort and a bad fit. The question whether these objects are to be regarded as rattles is doubtful. On shaking them, only a faint tinkle can be heard. Furthermore the source of this is accidental, being due either to parts of the metal casting holding the loops which have broken away, or to the presence of a small stone which was inside the core and could not be raked out. It is more likely that these objects were used as steelyard weights.

Signed A. E. Werner
Herbert Maryon

Regarding the casting process it appears that in nearly

all examples the staple and ring is of separate manufacture. When the body was being cast the mould must have been built around the staple in such a manner as to allow the ends to project inwards so as to be gripped by the molten metal. It seems that this was poured in from the narrow end as a number of examples have either a hole, or a hole that has been filled in at the base suggesting that it was not possible to entirely complete the casting in one attempt.

It is difficult to explain the use of crotals or to suggest comparisons - in fact none are known. Their manufacture was no mean undertaking and in addition they contain a considerable amount of bronze suggesting that they were intended to form some function whether that be material or spiritual in nature. That they were cow or sheep bells has been suggested (i.e.Robinson), but as Macalister (1949, 224) remarked they are too elaborate and the sound they emit is too faint to be of practical use in that connection and now Werner and Maryon have remarked that the source of this is accidental. Their view that the objects were steelyard weights is also improbable as the twelve and fourteen rib crotals in the National Museum vary in weight only within $3\frac{1}{2}$ ounces. The lowest weight is 13 ozs., the highest $16\frac{1}{2}$ ozs.

Armstrong noted that they seem to vary in tone and Macalister developed this and suggested that they may have been hung on a frame and sounded by been tapped by rods. The presence of rings suggests that they were intended for suspension, but neither rings or staples show signs of wear.

The Dowris crotals still remain enigmatic objects without parallels and without known use.

In the catalogue the measurements (in millimetres) in the left column are length of body (top) and diameter of body (bottom). The right hand column contains the diameter (top) and thickness (bottom) of the ring.

Crotals with twelve neck ribs

No 140 (Fig. 63 No. 1) Two knobs with central slot and hollow on each side. Loop a little loose. No evidence for mould join

120 42
60 2

N.M.I. S.A.57.i.A (Box 1)

No 141 (Fig. 63 No 2) Two knobs with grooves on each side, staple a little loose. No evidence for mould join

119 39
62 3

N.M.I. S.A. 57.i.A. (Box 1)

No 142 (Fig. 63 No 3) Knobs with groove on each side of slot. On the plain part of the body there is no evidence for a mould join but on the decorated part on each side a slight ridge occurs, but it is not certain if this represents a join

120 43
62 3

N.M.I. S.A.57.i.A. (Box 1)

No 143 (Fig. 63 No 4) Two slight bulges with hollow on each side and slot in centre

120 43
62 4

N.M.I. S.A.57.i.A. (Box 1)

No. 144 (Fig. 63 No 5) Two bulges with central elongated slot. No mould join

120 40

64 5

N.M.I. S.A.57.i.A. (Box 1)

No. 145 (Fig. 63 No 6) Two bulges flanked by hollows and containing central slot. No definite evidence for mould join

120 43

64 5

N.M.I. S.A. 57.i.A. (Box 1)

No 146 (Fig. 63 No 7) Two bulges with hollows on each side and a ring slot in the centre. A sleeve of metal joins the ends of the ring. No mould join

120 43

63 3

N.M.I. S.A. 57.i.A. (Box 2)

No 147 (Fig. 63 No 8) Two slight bulges, no mould join

120 44

64 3

N.M.I. S.A. 57.i.A. (Box 3)

No 148 (Fig. 63 No 9) Two bulges flanked on each side by shallow hollows and with slot in centre, but one of these is almost filled up by molten metal. Staple loose. No definite evidence for mould join

119 37

62 4

N.M.I. S.A. 57.i.A. (Box 3)

No 149 (Fig. 63 No 10) Two bulges with hollows on each side. One has slight openings. No definite evidence for mould join. There is an opening in the ring.

119 45

61 5

N.M.I. S.A.57.i.A. (Box 3)

No 150 (Fig. 63 No 11) Slight bulges on each side and one has a small perforation. No evidence for mould join.

120 39

63 5

N.M.I. S.A.57.i.A. (Box 4)

No 151 (Fig. 63 No 12) Similar to previous example

120 44

63 4

N.M.I. S.A. 57.i.A. (Box 4)

No 152 (Fig. 63 No 13) Slight bulge with central slot on each side. On the body there is a small perforation. An irregularity on the ornamented zone may be a mould join but this is difficult to establish.

119 43

62 3

N.M.I. S.A.57.i.A. (Box 4)

No 153 (Fig. 63 No 14) Low bulges with hollows on each side. On the upper half on one side in line with the bulge there is a slight ridge which may indicate a mould join. The loop is loose.

119 42

52 3

N.M.I. S.A. 57.i.A.(Box 4)

No 154 (Fig. 63 No 15) Bulge with tiny slots. There is also a small perforation in the body. No definite evidence for mould join.

120 39

60 4

N.M.I. S.A. 57.i.A. (Box 5)

No 155 (Fig. 63 No 16) Similar to previous example

119 36

62 $3\frac{1}{2}$

N.M.I. S.A. 57.i.A.(Box 5)

No 156 (Fig. 63 No 17) Surface free from patination. There are slight bulges on the side but no evidence for a mould join. A hole at the pointed end has been filled by molten metal.

118 46

61 5

N.M.I. 1881:1 (Box 6)

No 157 (Fig. 63 No 18) Well preserved with surface largely free from patination. Slight bulges on each side which contain small perforations.

120 42

62 3

B.M. 54.7-14.9

No 158 (Fig. 63 No 19) Well preserved and surface free from patination. There are slight bulges on the sides and one or two holes in the base appear to have been filled by molten metal of a different colour. The surface of the whole object was then smoothened down.

120 40

62 3

B.M. 54.7-14.10

No 159 (Fig. 63 No 20) Surface smooth and free from patination. On one side at the bulge part of the wall, which is 3 mm. thick at that point has been broken away

120 42
65 6

B.M. 83. 2-18. 4 (Box 679)

Crotals with fourteen neck ribs

No 160 (Fig. 64 No. 21) Slight bulge on each side and in line with those a vertical irregularity runs down the ornamented zone.

121 41
64 3

N.M.I. S.A. 57.1.A. (Box 2)

No 161 (Fig. 64 No 22) Similar to previous example.

121 41
47 3

N.M.I. 57.1.A (Box 2)

No 162 (Fig. 64 No 23) Very slight bulge on sides and in the decorated zone there is a narrow unornamented vertical area, perhaps a mould join.

120 35
62 4

N.M.I. S.A. 57.1.A. (Box 2)

No 163 (Fig. 64 No 24) Tiny bulge on one side and groove on the other at the same point. In the ornamented zone a slight irregularity of the surface runs in the vertical line. There is a hole in the pointed base. The ring is broken.

121 41
62 3

N.M.I. S.A. 57.1.A. (Box 2)

No 164 (Fig. 64 No 25) Bulge on each side, one contains tiny slots and at the base there is a perforation, it would appear that beside this a large hole was filled with molten metal. No mould join.

120 42
67 3

N.M.I. S.A. 57. 1.A. (Box 3)

No 165 (Fig. 64 No 26) Bulge on each side and there are a couple of perforations in the body.

121 39
68 3

N.M.I. S.A. 57.1.A. (Box 3)

No 166 (Fig. 64 No 27) Very slight bulges and in their line a vertical irregularity occurs in the decoration.

122 42
66 3

N.M.I. S.A. 57.1.A. (Box 4)

No 167 (Fig. 64 No 28) Slight bulges with flanking hollows on each side.

120 39
64 3

N.M.I. S.A. 57 .1.A (Box 4)

No 168 (Fig. 64 No 29) Slight bulges on sides and on the decorated surface an irregularity occurs.

121 43

65 3

N.M.I. S.A. 57.1.A. (Box 5)

No 169 (Fig. 64 No 30) On each side there is a narrow slot. No evidence for mould join. At the base there is a slight perforation.

122 43

63 3

N.M.I. S.A. 57.1.A. (Box 5)

No 170 (Fig. 64 No 31) Bulge on sides and in line with these a vertical irregularity runs down the length of the decorated portion.

121 41

63 3

N.M.I. S.A. 57.1.A. (Box 5)

No. 171 (Fig. 64 No 32) Slight bulges on sides and their line is continued to the top in a very shallow ridge. This causes a very slight irregularity in the decorating ribs.

121 41

64 3

N.M.I. S.A. 57.1.A. (Box 5)

No 172 (Fig. 64 No 33) Free from patination. On each side there is a bulge flanked by a shallow hollow and in the centre an elongated slot. No evidence for mould join. There is a small perforation in the base.

120 41

65 4

N.M.I. W. 280 (Box 6)

No 173 (Fig. 64 No 34) Similar to previous example.

122 38

63 4

W. 281

No 174 (Fig. 64 No 35) Free from patination. There is a bulge on each side and continuing its line a vertical irregularity occurs in the decorated portion. A perforation in the base has been filled by pouring in molten metal.

121 40

67 5

N.M.I. 282 (Box 6)

No 175 (Fig. 64 No 36) In place of the bulge there is a slight nick on each side and in line with this a vertical groove occurs in the decorated part.

121 44

63 3.5

N.M.I. S.A. 57.1.A.

No 176 (Fig. 64 No 37) Slight bulge on each side.

119 41

60 3

N.M.I.

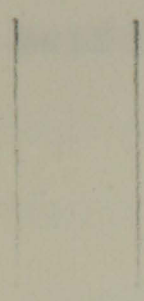
No. 177 (Fig. 64 No 38) Similar to previous example

120 45

6 3

N.M.I.

No 178 (Fig. 64 No 39) The base is missing and the sides are slotted. Surface smooth and free from patination.



43
6

B.M. 54. 7-14. 11 (Box 679)

No 179 (Fig. 64 No 40) Surface smooth and free from patination. There were two slight bulges on each side, but one has been damaged and the wall has been bent in. A small hole at the base has been filled with molten metal.

123 43
67 6

B.M. 54. 7-14. 12

Miscellaneous Crotals

No 180 (Fig. 52 No 41) Surface free from patination. A bulge on each side is flanked by grooves. One of these bears a small slot at each end. A hole at the pointed end has been filled with molten metal. The ornamental scheme on this example is different to the others and consists of 6 ridges running round the "neck" and 2 similar ridges further down between these there is a band of vertical ridges 8 mm. long

124 45
63 5

N.M.I. R. 1986 (Box 6)

No 181 (Fig. 52 No 42) The surface is largely free from patination. One the sides the joins are visible and at one point a hole has been filled by running in bronze.

56 29
43 3

N.M.I. R. 1985

No 182 (Fig. 52. No 43) Much smaller than the usual crotal. There are no knobs on the sides but, nevertheless, perforations occur at that point. 5 grooves circle the neck.

58 29
42 3

N.M.I. 1882:40

No 183 (Fig. 52 No 44) This and the two following examples are similar in form and shape. For its size this object is quite heavy. Part of the surface bears a dark patination and there is a collar around the ring end. On each side there are two elongated slots.

74 30
57 5

B.M. 54. 7-14. 13

No 184 (Fig. 52 No 45) Part of the surface bears a dark patination. Following around the body longitudinally is a mould join. At about the centre point there is a large slot the edges of which protrude upwards. At that point on the opposite side a bulge occurs.

74 30
59 5

B.M. 83.2-18.5

No 185 (Fig. 52 No 46) In good state of preservation and with dark patination over surface.

75 32
52 4

N.M.I.

No 186 (Fig. 52 No 47) This and the following crotal are similar and both have suffered considerable damage. The rings and staples are wanting. Their bodies have been flattened down and as a result have burst open at the base. Both appear to be fresh out of the mould and did not receive any post casting treatment or trimming. That the objects were cast in a two piece mould there can be no doubt. Part of what appears to be the casting core of fine sand-like consistency is in place in the interior near the head.

B.M. 54.7-14.14 (Box 681)

No 187 (Fig. 52 No 48) Similar to previous example.

B.M. 54.7-14. 15 (Box 681)

THE KNOCKADOO HOARD

This hoard, now consisting of two swords and two spearheads, was discovered on the lands of Knockadoo near Lough Gara,[26] the property of Viscount Lorton, and was deposited by him in the museum of the Royal Irish Academy in 1840 thus forming the nucleus of the collection of Irish Antiquities (Wilde Catalogue,511). It appears that a number of objects were discovered at the time and what remains is only the remnant of a large hoard.

Bibliography:

E.C.R. Armstrong "Some Irish Bronze Age Finds"
P.R.I.A., 26(1921-4) , 142 Fig.4

No.1 (Pl.7 Fig 27 No.254)

SWORD: The handgrip is thin and plain and at the end terminates in a small projection to each side. There are 2 rivet holes present and a further 2 in the shoulder (the tip of which on the sinister side is curled in a little). There is a ricasso. The blade has suffered considerable damage and has been bent, resulting in a break at about the narrowest part, and the edges are badly serrated. In section the blade is flat oval and a distinct ridge runs parallel to the edges.

485	44	7.5
100	34	16 ozs. (W.86 (B.6:3)

No. 2 (Pl 7 Fig. 27 No.253)

SWORD: The handgrip is plain.and contains 2 perforations. A shallow depression runs up the centre and the grip terminates in a straight ended projection. There are two rivet holes in the shoulder and the unperforated depressions for two more. There is a well formed ricasso and the shoulder tips project out slightly giving a beaked like effect. The surface of the blade is not very smooth. The edges are bevelled and have suffered some damage.

510	43	6
103	31	15½ ozs.

W. 22 (B.6: 3)

Both are Class 5 swords.

No. 3 (Pl 7)

SPEARHEAD: In good state of preservation and having a smooth surface that is largely free from patination. The edges of the blade are bevelled and extend down in the form of a narrow ridge to the socket holes. The mouth is now slightly irregular but was originally circular and 25 m.m. in external diameter. The walls average 1 m.m. in thickness.

Length 219 m.m. W. 256

Max. width of blade 32 m.m.

No. 4 (Pl 7)

SPEARHEAD: Somewhat similar to previous example and also well preserved. The edges are bevelled and the wings of the blade are hollowed. The socket is 25 m.m. in external diameter.

Length 290 m.m. W. 87

Max. width of blade 35 m.m.

In a general way both spearheads belong to Greenwell and Brewis Class 5. but here the blade is long and slender and Hodges (1956, 35) would consider such spears as a sub-type, probably an Irish development.

THE KNOCKMAON HOARD

Found during turf cutting operation, on the eastern verge of Knockmaon bog, Co. Waterford (O.S. 6" Sheet No.30). The hoard consisted of two socketed axes, two tanged chisels, one socketed gouge, one socketed curved knife, the lower portion of a sword blade, socketed knife, and a leaf shape spearhead. The spearhead is now lost but the remainder of the hoard is preserved in the National Museum of Ireland, Dublin.

Bibliography:

Power, Rev.P. "A Find of Bronze Implements in Co. Waterford J.W. and S.E.I.A.S., 4(1898) 47 - 53.

No. 1 (Pl 8)

SMALL LOOPED SOCKETED AXE : In good state of preservation. Over part of the surface there is a darkish patination. The walls are 2 m.m. thick and the mouth is round in section. Inside running vertically from top to base at about midway are two ridges.

This axe can be considered as a diminutive form of the bag-shaped axe. In distribution this form appears to be confined almost solely to Ireland. (Hodges 1956, 31).

Length 58 m.m. Max width across cutting edge 48 m.m.

Max diameter at mouth 27 m.m. P. 1948 : 146 (B. 9: 1)

No. 2 (Pl. 8)

SOCKETED AXE: Large bagshaped and with loop. It is round in section at the mouth and there the walls average 5 m.m. in thickness. A short distance below this a low ridge runs right around the weapon. The axe has been broken across at about midpoint and is now half filled with cement to keep both parts together. The edge is sharp and the surface bears a blackish patination. The mould join is clearly visible on the sides.

Length 96 m.m. Max. width at cutting edge 69 m.m.

Max. diameter at mouth 45 m.m. P. 1948 : 145 (B. 9: 1)

No. 3 (Pl. 8)

TANGED CHISEL: The tang, which is 74 m.m long is square sectioned and narrows from a maximum width of 4 m.m. to almost a point. The tang and blade are separated from each other by a flattish projection to each side. Underneath this the neck of the blade is more or less of oval section. It gradually expands into the blade which has a maximum width of 40 m.m. at the cutting edge. On the side the mould join is visible.

Length 121 m.m. P 1948: 150

No. 4 (Pl. 8)

TANGED CHISEL: The tang, 70 m.m. long, is similar to the previous example. It is separated from the blade by a uniform circular projection all round. The neck of the blade is round and is 7 m.m. in diameter. The cutting edge is 38 m.m. wide. This object was also cast in a two piece mould as is evident from the ridge left on the sides by the metal that squeezed out between the joins. There is a blackish patination over the surface.

Length 122 m.m. P. 1948: 149

Implements of this type are of reasonable common occurance in Ireland. They are usually described as chisels, perhaps part of the kit of the carpenter, but Raftery (1942 B 128) suggests that they may have been used as leather cutting tools. In distribution they are mainly confined to the north of the country and the east central plain area.

All the associated finds of tanged chisels in this country are of late Bronze Age date. In addition to the Knockmaon hoard an example occurs, together with a socketed gouge and socketed axe, in a hoard from Crevilly-valley, Co. Antrim (Raftery 1942 B Fig. 6) while at Booltiaghadine, Co. Clare, a tanged chisel, socketed axe, and bifid razor were found in association (MacNamara J.R.S.A.I., 31 (1901), 358.).

Tanged chisels appear to be the product of the native bronze industry of the British Isles. They were probably evolved from what Hemp in 1925 (Hemp 1925) termed the trunnion celt. This is a long flat implement with a slightly splayed cutting edge at each end and with the body gradually widening from one end to the other. At about the centre of the tool a lug projects from each of the narrow sides. As Raftery has pointed out the thinning down of the narrow end and the replacement of the lugs by a collar would produce the tanged chisel in final form. Intermediate types are fairly common.

The trunnion celt is at least as early as the end of the Early Bronze Age as its association with decorated axes in the Westbury-on-Tryn, Gloucestershire, shows, (Megaw and Hardy, 1938 Fig. 19). In Greece it goes back to late Mycenaean times (May and Collins, 1959. 36) and may have formed part of the northward movement around 1,400 that is best exemplified by faience beads. It continued on and occurs in Late Bronze Age hoards like Lusmagh, Co. Offaly (B.M.Guide 1953, 34, Fig.12, 6).

No. 5 (Pl. 8)

SOCKETED KNIFE with curved blade. At the mouth the socket is almost subrectangular in section. It is 1 m.m. thick by 24 m.m. long and 19 m.m. in greatest width. The wall is perforated to receive a peg. At least in width the blade is a continuation of the socket. It is flat and not more than 2 m.m. in maximum thickness. The object bears a darkish patination and the mould joins are visible on the sides.

P. 1948: 148.

Knives of this type are comparatively rare. In Ireland only three other examples are known, one from Ards, Co. Down, and two unlocalised specimens (Hodges 1945, 52). Such knives seem to be unkown in England and Wales, but occur in Scotland in the Point of Sleat, hoard in Skye (Anderson 1878-9, 326-7; 1886, 145-6. Fig.145), in the Wester Ord hoard, Rosshire, (Richardson 1924-5, 113-6, Fig 1 No.3), and at Cullerne, Morayshire (Callander 1922-3, 150. Fig. 9. 18). Curved socketed knives also occur on the continent (Evans, 1881, 209-10) and a specimen

was found in a hoard at Fresné la Mère, near Falaise, Calvados, France, (Evans. 1881 Fig. 247).

The use of these knives is not altogether clear, Callander(1922-3, 150) and Evans op.cit. 208, considered them as wood workers implements and Hodges quoting Arnold states that a similar tool is still used by treen makers for hollowing out wooden vessels. On the other hand Childe (1935,153) suggested that such knives may have been used by a smith in preparing moulds.

No. 6 (Pl. 8)

KNIFE, socketed: The blade is almost parallel sided and of lozenge section. This midrib extends up the socket which assumes an octagonal section. The body is wasted and each face is perforated to receive a rivet.

Length 238 m.m. Max. width of shoulder and width of socket 25 m.m. each

Max. width of blade 24 m.m. N.M.I. 1906: 434.

This knife belongs to the Thorndon type in the Hodges terminology (1956, 38) and can be paralled by Dowris No. 30 (Fig. 52)

No. 7 (Pl. 8 Fig.28 No. 274)

SWORD: Only lower portion of blade survives. It is a pointed oval in section and a slight ridge can be discerned running parallel to the edges. Towards the fractured end the edges have been beaten back to form a handgrip of sorts suggesting use subsequent to breakage.

292 - 5

- 36 -

1948: 151

This appears to be part of a Class 5 sword.

No. 8

SOCKETED GOUGE: Circular at the mouth and the walls are 2 m.m. thick. At the bottom the cutting edge expands outwards slightly and over portion of the surface there is a thick dark patination. In places this flakes off to reveal a coarser surface underneath.

Length 79 m.m. Max width at cutting edge 23 m.m.

Diameter at mouth 17 m.m. P. 1948: 147

Dowris Nos. 8-12 (Fig. 51) can be cited as parallels.

SPEARHEAD: The hoard also contained a socketed spear head, the present whereabouts of which I have been unable to trace. The object was briefly noted, but not illustrated, by Power and would appear to have belonged to Class V in the Greenwell and Brewis Classification. It was 8¾ inches (223 m.m.) long , with blade about 1 inch (25 m.m.) in maximum width. The socket 2 inches (50 m.m.) long, was oval rather than circular in section and measured "across the greater and lesser axis " 1 inch (25 m.m.) and ½ inch (14 m.m.) respectively.

In 1898 the spear was in the possession of Mr. Ussher of Cappagh, Co. Waterford. He had a large collection of antiquities but during the Anglo-Irish war his house was occupied several times by groups from each side of the contest. It is stated that the soldiers, and others, at that time occupied themselves by tossing the collection around, and even removed some objects. Eventually there was an auction and the late Canon Power acquired most of the material. Canon Power's collection is now in the National Museum of Ireland with the exception of the remnants which are in the Cork Public Museum. Neither of these institutions possess the spearhead, so it is possible that it was carried off during the disturbances.[27]

THE LATTERAGH HOARD

The three leaf shaped swords which form this hoard were found in 1866 about eighteen ~~miles~~ INCHES below the surface of the ground during the construction of a fence in the town land of Latteragh, Co. Tipperary (O.S. 6" sheet 28). These three swords belong to Class 5 and are now in the National Museum of Ireland, Dublin.

Bibliography

Armstrong, E.C.A. Some Irish Bronze Age Finds
P.R.I.A., 26 (1921-4) 142. Fig. 5

No.1 (Pl 9 Fig. 27 No.262)

SWORD: This sword has suffered considerable damage. The handgrip has been broken off just above the point of mergence from the grip and outer portion of one shoulder has also become detached. The edges of the blade, particularly on the sinister side, are quite blunt and in places serrated.

The handgrip posesses strong and distinct flanges that continue down the shoulder fading out near the tip. It contains 2 rivet holes and a swelling out of the base of the blade extends up to the lowermost perforation, it then bifurcates and continues up the grip in the form of two raised ridges. There are 3 perforations in the shoulder. Due to the damaged nature of the edges just below the shoulder it is difficult to say if a ricasso existed. The blade appears to have been smoothed down, over portion of its surface it now bears a greenish patination. In section the blade is flat oval and a ridge runs parallel to the edges. The extreme tip is wanting.

Armstrong fig.5 No.3	This illustration does not show the handgrip.	
493	46	8.5
106	38	20 ozs.

R. 2009 (B. 6:3)

No.2 (Pl.9 Fig 27 No.263)

Only a stamp of the handgrip survives. This is flayed and the remains of a rivet hole are visible in the fractured end. A triangular swelling out of the base of the blade continues up to that point. There are 2 rivet holes in the shoulder and underneath on the dexter side there is a ricasso. The sinister side is damaged. Apart from a few patches of ironoxide the surface of the blade is smooth. In section it is flat oval and a ridge runs parallel to the edges, these have been damaged especially on the sinister side where the edge for most of its length has been cut back to the ridge. The top is missing.

445	42	8
-	37	-

R. 2010 (B. 6: 3)

Armstrong fig. 5 No.2

No.3 (Pl. 9 Fig 27 No.261)

The handgrip was broken off at about mid point and the present pommel end has been cast on. This is of different colour to the original and its surface is rough and there are 2 rivet holes present. The original grip was flanged and it would appear that two raised ridges extended up its centre. The shoulder has suffered considerable damage. It contained 4 perforations but the outer casing of the lower 2 has been broken off. The surface of the

blade is quite smooth. It shows a rounded midrib flanked by a shallow chanel and a ridge towards the edges. The latter are quite blunt and have been cut back considerably. The extreme tip is wanting.

510 - 9

100 32 20 ozs.

R. 2008 (B. 6: 3)

Armstrong fig. 5 No. 1

THE MOOLAGH HOARD

This small hoard, which consists of only two objects, a sword and spear head, was found in 1892 in a bog at Moolagh, Ardara, Co.Donegal (O.S. 6" sheet 74, 82). The hoard is preserved in the National Museum of Ireland, Dublin.

Bibliography:

Armstrong, E.C.A. Some Irish Bronze Age Finds
P.R.I.A. 26 (1921-4) 146, fig. 8

No. 1 (Pl 10 Fig 20 No.149)

SWORD: In bad state of preservation, ~~all~~ the handgrip and portion of the shoulder on the dexter side.is wanting. On the other side the shoulder is straight sided, there is a rivet hole present and a ricasso underneath. The blade is of flat lens section and the edges are bevelled. These, especially towards the tip, have suffered extensive damage.

The sword can be assigned to Class 5

465 - 5.5

- 34 -

1900 46 (B. 6: 3)

Armstrong fig. 8 No.1

No. 2 (Pl.10)

SPEARHEAD, Socketed Leafshaped. The socket is circular, at the mouth it is 27 m.m. in external diameter and 24 m.m. in internal diameter. The socket contains a hole for a peg and continues up the blade forming a uniformly round midrib. The adjoining wings of the blade are solid. There is a darkish patimation over part of the surface and it is pitted and irregular. The edges have been damaged and the extreme tip is wanting.

This spearhead is of Greenwell and Bewis Class V.

Length 300 m.m. Max. width of blade 48 m.m.

" of blade 253 m.m. 1900: 47

Armstrong Fig.8 No.2

THE NEWPORT HOARD

There is practically no information available regarding the circumstances of the discovery of this hoard, except that it was found at Newport, Co. Mayo,(O.S. 6" sheets 67, 68.) perhaps in a peat bog. In 1915 the hoard was in the possession of Mr. C.T.Trechmann in England but it has not been possible to ascertain its present whereabouts. The descriptions are, therefore, based solely on Trechmann's account and illustrations.

From the worn and damaged nature of some of the objects it seems that the hoard ~~is~~ WAS the property of a founder or scrap merchant. It probably dates to early in Phase 11 as the two Class 1 sunflower pins are of immediate Scandinavian decoration.

Bibliography.

T.C.Trechmann P.Soc. Antiq. London)
28 (1915-6) 153 - 63 Fig.3.

THE OBJECTS.

In the following description of the objects their numeration as given by Trechmann in fig.3 have been retained.

No.1 (Pl.11)

SOCKETED AXE: Small bag shaped with loop broken off.

Length 32 m.m. Width across blade 30 m.m.

No. 2 (Pl. 11)

SOCKETED AXE: From the illustration the mouth appears to be square with a moulding underneath

Length 50 m.m. Width across blade 36 m.m.

No.3(Pl. 11)

SPEARHEAD: Plain leafshaped belonging to Class V. The surface of the blade is much corroded and the tip has been broken off.

Length 135 m.m.

No.4 (Pl. 11) Fig.25 No.232

Portion of SWORD BLADE . This is almost parallel sided and is featureless. It appears to belong to Class 5.

Length 85 m.m. Width 35 m.m.

No. 5 (Pl. 11)

SUNFLOWER PIN: The head is comprised of a rounded flat disc with small central knob that is surrounded by twenty concentric circles in slight relief. The pin has been attached to the head by passing the end through a circular opening in the centre and then clinching the end so as to form a small boss. The disc has suffered some damage and at one point is cracked.

Length 160 m.m. Diameter of head 57 m.m.

No.6 (Pl. 11)

SUNFLOWER PIN: The head is similar to number 5 and the central boss is surrounded by seven incised concentric circles . Unlike the previous example "the shaft has been welded to the head a little below the bend and the head is therefore all cast in one piece". Over the surface of both there is corrosion present and each appear to have been well worn.

Length 155 m.m. Diameter of head 50 m.m.

Both belong to Hodges (1956,43) Class 1. Sunflowerpins.

No.7 (Pl 11)

DISC-HEADED PIN: With decided boss in the centre of the round head.

Length 123.m.m. Diameter of head 21 m.m.

No.8 (Pl. 11)

DISC-HEADED PIN: Similar to previous example but with only very slight boss in the centre of the head. Trechmann states that in both instances the head and pin have been cast in one piece.

Length 88 mm

As Hodges noted (1956, 43) disc-headed pins are allied to the sunflower pins. In shape and character the heads are similar , the only real difference being in that they are set on top of a straight shank. Their distribution is confined to Ireland.

No. 9

Two fragments of small plain RING. 17 m.m. in external diameter and 2.5 m.m. thick (omitted from Trechmann's photograph).

THE CO. ROSCOMMON HOARD

This hoard was discovered in the last century in Co. Roscommon but the exact place of finding is unkown. A considerable number of pieces were found, about two hundred weighing over sixteen pounds, according to Day. What survives was purchased by Day in Mullingar, but as the dealer put, what Day thought to be a prohibitive price upon the whole hoard he only purchased a selection of representative pieces, largely in fragmentary condition.

Day lists three imperfect looped socketed axes "so broken that they were only fit for the melting pot ", numerous portions of spearheads, swords and bronze vessels, five "massive" pieces of bronze which may have been "gets" or waste pieces, and several portions of bronze scabbards. Day remarked that all the fragments bore a similar patination.

In Ireland this hoard is unique but it can be paralled among the Founders' hoards of the south of England and recently called the Wilburton complex by Savary (1958, 28). As has been argued above (p. 31) the particular bronze industry exemplified by these hoards can be dated early in the English Late Bronze Age, that is from about 900 to 700 B.C. The hoard is the property of Mr. John Hunt.

Bibliography

Day, Robert. Find of Broken Bronze Things, including Fragment of Sword Scabbard.
J.R.S.A.I., 15 (1879 - 82), 265-6.

Nos. 1, 2 and 3 (Pl.12 Fig.47)

TONGUE SHAPE CHAPES: Only fragments of these chapes survive in the Co. Roscommon hoard (see Appendix B) and the drawings in Fig. Nos. 1-3 are based on reconstruction executed by Mr. John Hunt. It would appear that all three chapes were similar and averaged 380m.m. in maximum length by about 60m.m. in greatest width across the mouth. Both Nos.1 and 2 have a projection extending out of the butt and it is likely that No.3 had a similar feature. Originally the chapes were of flat lozenge section. A ridge runs parallel to the edge and each possesses a sort of midrib.

Similar chapes to those from Co. Roscommon occur, for instance, in the Wilburton hoard, Cambridgeshire, (Evans 1884, 106-14 , Fox, 1923, 59) : in the Guilsfield hoard, Montgomeryshire, (Grimes, 1939. Fig 71): and in the recently discovered hoard from Isleham in the Cambridgeshire FENS (Britton, 1960)

No. 4 Pl.12 Fig. 13 No. 30)

Fragment of SWORD BLADE 29 m.m. long and 36 mm wide and 9 m.m. in maximum thickness. It is of lozenge section.

On the basis of the lozenge section the fragment can be assigned to Class 1 or Class 2 but on account of the general composition of the hoard it is most likely that it is part of a Class 2 sword.

Day p. 267 No. 7

No. 5 (Pl. 12)

The mouth portion of a SOCKETED AXE. This is circular with an expanding lip and a distinct moulding underneath. Maximum external diameter 42 mm.

No. 6 (Pl. 12)

Lower portion of SOCKETED AXE. This was probably a faulty casting and may not have been used.

No. 7 (Pl. 12)

Lower half of small SOCKETED AXE.

Day p. 267 No. 4

No. 8 (Pl. 12)

SOCKETED AXE. The mouth is missing and the loop has been broken off. The base of the loop extends around the body for a short distance on both sides. Present height 60 mm.

No. 9 (Pl. 12)

Small SOCKETED AXE made of very thin metal. The mouth is missing and a plug of wood in the interior may be the remains of the original handle. Present height 42 mm.

The foregoing seem to belong to the bag-shaped axe group.

Mr. Hunt's Catalogue also lists (A) a fragment of the mouth of a SOCKETED AXE of angular form with large moulded lip and two members below, and (B) the lower part of a SOCKETED AXE.

Day's illustration (No. 2) has (A) a complete looped SOCKETED AXE but apparently untrimmed after casting. There is a moulding around the lip. From the illustration the mouth appears to be square but one cannot be certain of this. (B) Looped SOCKETED AXE with cutting edge missing and again lacking post-casting treatment. Above the loop a raised band encircles the body. This may be a bag-shaped axe. Finally there is (C) another looped SOCKETED AXE, again with cutting edge wanting and rough surface. Around the lip there is a moulding. From the illustration it is suggested that the body of this axe is of hexagonal section.

I have not seen any of these five axes.

No. 10 (Fig. 12) "Gate" from mould

No. 11 (Fig. 12) Another mould "gate"

No. 12 (Fig. 12) "Gate"

No. 13 (Pl. 12)

Flat piece of bronze with concentric circle

Day p. 367 No. 6

No. 14 (Pl. 12)

Flat fragment of bronze of roughly lozenge shape. The surface appears to have been smoothed down somewhat.

Nos. 15 and 16 (Pl. 12)

Two pieces of a D sectioned solid bronze rod.

No. 15 49 mm. long. No. 16 36 mm. long.

No. 17 (Pl. 12)

This fragment has a hollow bulbous head. Some form of extension at the top has been broken off. Underneath there are two low ridges and the shank tends to be subrectangular in section. Length 25 mm.

No. 18 (Pl. 12)

Part of round sectioned bronze rod 36 mm. long.

No. 19 (Pl. 12)

Piece of bronze, flat at base and with raised ridge in centre of inside rising into a point. Length 67 mm.

No. 20 (Pl. 12)

Bronze fragment with edge too heavy to be part of a chape.

No. 21 (Pl. 12)

14 Chape fragments.

No. 22 (Pl. 12)

14 waste pieces of bronze.

THE TEMPO HOARD

The constituents of this hoard, one spearhead and two swords, were discovered at Tempo, Co. Fermanagh (6" O.S. sheet 23) Coffey in his publication does not record any details regarding their discovery. The hoard is now in the National Museum of Ireland.

Bibliography

Coffey, G. "Recent Prehistoric finds acquired by the Academy" P.R.I.A. 30(1912-3) 91-2 Fig. 3 and Pl. 9: 3 and 4

" " The Bronze Age in Ireland (1913), 72, Fig. 65

Macalister, R.A.S. Ireland in Pre-Celtic Times (1921) Fig. 55 (illustrates the swords)

The Objects.

No. 1 (Pl. 13) Fig. 22 No. 178

SWORD. This is a splendid weapon with smooth surface that has been well cleaned to show the original surface throughout. The handgrip is strong and possesses low flanges. It contains 2 perforations and between these a depression for a third. The shoulder contains two rivet holes and the unperforated depressions for 2 more. There is a ricasso. The blade is in perfect condition. It is flat oval in section and a ridge runs parallel to the edges.

615	51	8
107	45	29ozs.

1912:57 (cc 7:5)

No. 2 (Pl. 2 Fig. 22 No. 17)

SWORD. Very magnificent and perfect specimen. The handgrip has in places scarcely distinguishable flanges. It contains two perforations and has been cast on at the point of mergance from the shoulder. Perhaps as a means of strengthening the new part the smith who repaired the weapon provided in the mould for a pair of ribs on each side. These extend

from the base of the repair at the sides in the form of an inverted V and almost converge at the lower rivet hole. The shoulder contains a total of 4 holes, 3 of these being on one side. On the other side there is only one perforation, at the tip, but underneath the joint there is a depression for another, and between these a lobe of metal may be filling a third. There is a ricasso underneath. The blade has been well cleaned and its surface is smooth. In section it is a pointed oval and a ridge runs parallel to the edge.

260	50	5.5
105	44	20½ozs.

Both swords are typical of Class 5.

No. 3 (Pl. 3)

SPEARHEAD. In good condition. In shape the blade is almost an elongated triangle but having the wide ends rounded. On each side of the socket the base of the blade extends downwards for a short distance in the form of a narrow tongue. This extension is perforated to form a loop. There is a ridge running parallel to the mid rib and this continues to the base of the extension on the outside of the loop.

Length 370 mm. Max. width of blade 69 mm.

1912:55

Basal looped spearheads (Class IIIA) are one of the types that evolved as a result of hybridisation between the native and intrusive types. They are regarded as of Middle Bronze Age date but that the type survived into the mature Late Bronze Age is evident from the Tempo hoard. In this connection Hodges (1954, 68) has noted that the form of such spears is different from their Middle Bronze Age forerunners. The loops are now reduced to fillets and these extend onto the socket.

THE YOUGHAL HOARD

This hoard, consisting of two swords and two spearheads was acquired by the National Museum of Ireland in 1866. The register does not specifically state that they were found in association, as Armstrong pointed out. Armstrong, nevertheless, had no doubt about the authenticity of the association for all objects were acquired at the same time and all bear a similar greenish patination.

Bibliography.

Armstrong, E.C.R. "Some Irish Bronze Age Finds." P.R.I.A. 26 (1921-4), 142-3, Fig. 6

The Objects

No. 1 (Pl. 13 Fig. 14 No. 60)

This SWORD has been badly damaged. Apart from a very small stump the handgrip is wanting and the tip of the shoulder on one side has been broken off. From what survives it would appear that the handgrip was flanged and these continued down the shoulders for a short distance. The latter contained 6 perforations. The blade is a flat and pointed oval in section. Its edges have suffered considerable damage and are now quite blunt and gapped. The surface may have been smoothed down, but at present, especially on the one side, it bears an accretion of iron oxide and is rough in appearance.

525 - 7
- 43 -

R. 2266 (B. 6:3)

Armstrong Fig. 6: 1.

No. 2 (Pl. 13 Fig. 15 No. 61)

SWORD. Apart from a very small stump the hand grip is wanting, it would appear to have been flanged. The shoulder contains 2 rivet holes. Underneath it narrows rapidly to form a slight ricasso. The surface of the blade is reason-

ably smooth, but there are some tiny blow holes present. It appears that the edges were bevelled, but the drawn out portion has almost all been broken away and as a result they are now quite blunt.

515	55	6
-	47	-

R. 2267 (B. 6: 3)

Armstrong Fig. 6 No. 2.

This sword, and almost certainly the previous example too, can be assigned to Class 4.

No. 3 (Pl. 13)

SPEARHEAD, leaf shaped, The socket is wanting and parts of the wings of the blade. The centre is occupied by a hollowed rounded midrib which tapers to a point at the top. The adjoining portion of the blade along the midrib is also hollowed. The edges are bevelled.

Present length 330 mm. Approx. max. width of blade 67mm

R. 2269

Armstromg Fig. 6 No. 4

No. 4 (Pl. 13)

SPEARHEAD, leaf shaped, and similar in form to the previous example. The head has also been damaged and portion of the socket is wanting.

Present length 400 mm. Max. width of blade c.61 mm.

R. 2268

Armstrong Fig. 6 No. 3

Both spearheads belong to Greenwell and Brewis, Class V with perhaps the former approaching sub-class V B.

Date

On the sword evidence this hoard can be assigned to Phase I of the Irish Late Bronze Age.

APPENDIX B

SCABBARD CHAPES

Bronze swords were carried in scabbards, perhaps made of some perishable material such as leather or wood, and in order to prevent the tip of the sword from protruding these terminated in chapes. All the Irish chapes have perforations for attachment. They are of thin bronze, in some instances less than 1 mm. thick, and the technique employed in the casting reached a very high technological standard especially when one considers chapes of Class 4. It is possible to divide the chapes into four main classes.

Class 1 comprises tongue-shaped chapes (Fig.47), but the group can be sub-divided and the smaller examples nos. 4, 5 and 6 termed 1A. Class 1 chapes are large objects, sometimes up to 280 mm. in length by about 60 mm. in greatest width across the mouth, which is sunken to form a crescentic shape. These chapes are of flat lozenge section and a short projection emerges out of the base. The only evidence of the occurrence of Class 1 chapes in association in this country is the Co. Roscommon hoard (Appendix A). This hoard contained at least three such chapes and fragments of others (Pl.13, 1-3, 21).

It is likely that nos. 4, 5 and 6 are a devolved form although it is hard to be sure about no. 5 especially as its base is missing and it could easily be an enlargement of Class 2 such as no.7.

As Class 1 chapes are easily paralleled in Britain in "Wilburton Complex" hoards it can be concluded that here they formed the base of scabbards that carried swords of our Classes 2 and 4 and like them have a span of around 200 years.

Class 2 chapes (nos. 7-10 Fig.48 nos. 1-4) are characterised by an evenly expanded foot and a body that is of distinct lozenge section. Nos.7 and 8 differ from nos.9 and 10. The former have a straight mouth and the base expansion is buffer

shaped. In no.9 and 10 the mouth is sunken and the foot is domed.

No chapes of Class 2 have been found in association with swords in Ireland. In Scotland there are however a number of associations such as at Ythsie, Tarves, Aberdeenshire (Anderson 1886, 141-2), at Gogar near Edinburgh (Anderson op.cit. Fig.142 no.2), and at Cauldhame, near Brechin, Forfarshire (Anderson op.cit. Fig 143). These chapes are similar to no.9 but lack the pronounced foot expansion, and all were associated with swords that correspond to our Class 5. A good parallel for no.10 comes from Pant-y-maen, Cardiganshire, where it was found together "with broken swords, spearheads, and ferrules, as well as some small rings" (Evans 1881, 304, Fig.370).

By and large Class 2 chapes go with Class 5 swords, and consequently have a similar chronological range. On the pin evidence the Tarves hoard can be dated to about 500. They probably derive from Class 1 chapes.

Class 3 chapes. These are the purse or bag-shaped chapes, they possess a hollowed mouth that is somewhat elliptical in shape with a ridge running around the edge on the outside. On the sides the body widens slightly from the mouth downwards and then curves into a rounded base. Approaching the base the walls thicken. On each face there is a hole, and in some instances two for attachment.

Bag-shaped chapes are usually considered as one of the component parts of the intrusive carp's tongue sword complex of Southern England (Hawkes AND Kendrick 1932, 125). They occur in such hoards as that from Grays Thurrock, Essex (Butcher, 1922, 106) and in hoards containing predominately British types but covering from an area peripheral to the distribution of the "carp's tongue" complex and incorporating elements from it as in the Felixstowe hoard, Suffolk (Invent. Arch. G.B. 16 2 (1), no.2) and the Reach Fen hoard, Cambridgeshire (Invent. Arch. G.B. 17 3 (3) no.20 (for such hoards see Clark Antiq. J. 20 (1940), 106).

While the carp's tongue sword and the objects normally associated with it have a very limited southern English distribution (Evans 1930 Figs. 1, 2 and 3) some objects such as the Irish chapes and also perhaps the sword no.564 (Fig.45) wandered even farther afield. It now seems more certain that the carp's tongue sword complex is a thing of the 7th century. It is therefore likely that the bearers of class 5 swords sometimes tipped their scabbards with such chapes.

Class 4. The winged chapes comprising this class possess an oval mouth centrally placed and set down so as to give a semicircular appearance when viewed from the side. The edge curves outwards slightly to form a lip of sorts. Underneath there are two perforations set opposite each other on both faces. The narrow sides of the central area extend outwards tapering and culminating in a small knob. The tops of the wings are usually edgelike in thinness, but they widen slightly to about midpoint where there is a step caused by the thickening of the metal that occupies the lower half of the chape. From that point the wings narrow into a round bottom.

Again none of these chapes have been found in association with swords in this country. Evans (1881, 307) notes that one such chape was found with a bronze sword at Ebberston, Yorkshire. Despite this there can be no doubt but that these chapes go with the Hallstatt swords of Class 6. The evidence of association on the Continent especially France is strong (Déchelette 2nd ed. 1927 p. 211-2).

The typological standing of nos.21 and 22 (nos 11 and 12 Fig.48) is not clear but they could easily be derived by Class 4 chapes by shortening down the wings. They may well be a separate type for examples are known in France and one was actually found with a Hallstatt sword in the Tumulus de la Combe d'Ain ⅋, Jura (Déchelette, 1927, 140-1 Fig.250, 4). The form is also known in England and as a parallel one may cite an example that was found near Mildenhall, Suffolk (Evans, 1881, 306, Fig. 375).

Brewis (1922-3, 263) thought that wings were functional and served as a means of hooking the scabbard behind the sword-man's thigh so as to facilitate easy withdrawl of the sword. Brewis termed such chapes "anchor chapes".

Co. Roscommon.

Nos 1-3 THREE TONGUE SHAPED CHAPES (Fig. 47 nos.1-3).
For description see p.

Ireland

No. 4 TONGUE SHAPED CHAPE (Fig.47 no.4) tapering from a maximum width of 43 mm. at the mouth to 11mm. at the plain base. Around the mouth portions of the sides have been broken off. The surface is smooth and bears a black patination. At about midpoint on each face a slight depression indicates that it was intended to have two perforations.

Length 145 mm. N.M. I. W.35 F 210

Bibliography:

Coffey, George, The Bronze Age in Ireland (1913) Fig.66 (top).

Co. Westmeath Rathlin Castle

No. 5 TONGUE SHAPED CHAPE (Fig.47, no.5) It tapers from a width of 30 at the mouth to the base but the latter is now wanting. One cannot be certain if it had a plane base or expanded foot like no.7. The object has suffered some damage and parts of the outer surface bears an accretion of iron oxide. Each of the faces has a perforation.

Present length 110 mm. U.M.A. Cantab M.C.99, 195

Ireland

No. 6 TONGUE SHAPED CHAPE (Fig.47 no.6) Underneath the mouth there is an irregular shaped hole caused by breaking in part of the wall. Below midpoint there are 2 perforations. On the sides very slight flanges

occur.

Length 120 mm. Swan Collection

Ireland

No.7 CHAPE (Fig.48 no.1) tapering from a maximum width of 28 mm. at the mouth to 13 mm. at the base where it expands into a buffer shaped terminal 18 mm. in diameter. The walls are about 1 mm. thick. The surface is smooth and bears a black patination. There are 2 perforations, one on each face, near midpoint.

Length 80 mm. N.W.4 W.283

Bibliography

Coffey, George, The Bronze Age in Ireland (1913), Fig. 66 (bottom)

Evans, John, The Ancient Bronze Implements... of Great Britain and Ireland (1881), 303, Fig.367.

Wilde, William, Catalogue, 460, Fig. 335, no. 283

Co. Cavan Sruagh Ford

No. 8 CHAPE (Fig.48 no.2) small, the walls are only 1mm. thick and in the centre on each side opposite each other, at about midpoint, there is a perforation. The chape terminates in a buffer like finial, 19 mm. in diameter. The surface bears a dark patination.

Maximum length of mouth 23 mm. Length 51 mm.

Maximum width of mouth 14 mm. N.M.I. 1580

Ireland

No. 9 (Fig.48 no.3) Long chape tapering from mouth to bottom and terminating at the base in a rounded finial 17 mm. in diameter. The sides extend up to form a "horned" mouth end. One of the "horns" is bent inwards slightly. The walls average from 1-2 mm. in thickness and these contain a perforation on each side at about midpoint.

Approx. max. length of mouth 38 mm. Length 111 mm.

Approx. max. width of mouth 14 mm. M.M.I. No reg.no.

Bibliography

Coffey, George, The Bronze Age in Ireland (1913)
Fig. 66 (middle).

Ireland

No.10 CHAPE (Fig.48 no.4). In shape this object is similar to the previous example. A ridge runs parallel to the edges and there is a flattened midrib of sorts. On both sides the walls contain a rivet hole.

Length 66 mm. Max. width at mouth 14 mm.
Max. length at mouth 39 mm. M.M.B. 9.85

Co. Offaly Dowris

No.11 CHAPE bag or purse shaped (Fig.49 no.11). There is a slight lip at the mouth which is 36 mm. long and 10 mm. in maximum width. Towards the rounded base the walls thicken. On each face a hole for attachment occurs and there is also a slight hole in the bottom, this may have been caused by the tip of the sword.

B.M. 1883 2.18.13

Co. Tipperary Cloonmore

No.12 CHAPE bag or purse shaped (Fig.49 no.12). Of a similar nature to the previous example.

N.M.I. W. 284

Bibliography

Evans, John, The Ancient Bronze Implements... of Great Britain and Ireland (1881) Fig.372

Montelius, Oscar,"The Chronology of the British Bronze Age" Arch.61 (1908), Pl.17 no.146

Wilde, Catalogue, 461 Fig.336 no.284.

No.13 CHAPE, bag or purse shaped (Fig.49 no.13) The mouth is 38 mm. in maximum length and 12 mm. in maximum width. There are 4 holes for attachment, 2 on each face opposite each other. The surface is quite smooth and

in places bears a greenish patination.

N.M.I. 1872:11

Co. Limerick Lough Gur

No.14 CHAPE (Fig. 49 no.14) This chape is to some extent purse shaped in outline but is much larger than the usual variety. The mouth is a long oval and is 82 mm in maximum length by 20 mm in maximum width. At the mouth the walls are 1 mm thick. They spread outwards slightly to midpoint where they widen into a ridge giving a shoulder-like effect. Underneath they curve again into the base which is pointed. At the sides the chape also widens outwards to reach a maximum width of 90 mm before curving into the base. At the point of maximum width there are 2 round knobs not altogether unlike those occuring on the Hallstatt chapes. Underneath the mouth edge there are tiny holes, 2 on each face opposite each other.

N.M.I. 1886:24

This chape does not appear to have exact parallels, but it is conceivable that it may have developed from chapes of Class 3 under Hallstatt, stimulus.

Ireland

No.15 CHAPE winged (Fig.48 No.5). Most of both wings are wanting and the mouth has also been damaged.

Contab. U.M.A., M.C.99:196

No.16 CHAPE winged (Fig.48 No.6). This chape has suffered some damage. The top of each wing has been broken off and the sides of the mouth have been bent inwards slightly. The 2 tiny perforations underneath retain their rivets. Most of the surface is covered with a thick black patination.

N.M.I. W. 287

No.17 CHAPE winged (Fig.48 no.7). The top of one of the wings has been broken off. The other ends in a rounded terminal. The flat oval mouth is 33 mm in maximum length by 6 mm in internal width. Underneath there are two tiny rivet holes. Most of the surface is covered by a darkish patination.

N.M.I. W.288 $\frac{199}{B}$

Bibliography

Wilde, William, Catalogue 461, Fig.338 no.288.

No.18 CHAPE winged (Fig.48 no.8). Part of one of the wings is wanting. The other ends in a rounded terminal. It appears that some attempt at cleaning this object was made.

Max. length of mouth 33 mm N.M.I. W.289

Max. internal width of mouth 6 mm

Bibliography

Coffey, George, The Bronze Age in Ireland (1913) Fig.67 (top).

No.19 CHAPE winged (Fig.48 no.9). Dark patination over surface. The wings end in small rounded terminals, but one of these is cupped. The object is 162 mm in maximum length.

Max. length of mouth 34 mm N.M.I. P.744

Max. internal width of mouth 6 mm

Bibliography

Coffey, George, The Bronze Age in Ireland (1913) Fig.67 (middle).

No.20 CHAPE winged (Fig.48 no.10). The tip of the wing on the dexter side has been broken off. The mouth is 29 mm long by 9 mm in maximum width. The perforations underneath retain their rivets. These average 9 mm long.

M.M. B

Co. Galway Keelogue Ford

No.21 CHAPE (Fig.48 no.11). This and the following example are boat shaped. The middle portion is somewhat similar to the Hallstatt chapes except that they lack the extending wings. The mouth is 38 mm in maximum length by 8 mm in maximum width. The edges of the mouth have been slightly damaged.

Max. length 87 mm N.M.I. W.285

Co. Galway Keelogue Ford

No.22 CHAPE (Fig.48 no.12). There is a slight indentation along the top on each side of the mouth. Wilde thought that this could have been the result of overlapping by the woden portion of the chape.

In the illustration Wilde gives the number as 284, this seems to be a mistake.

Length 103 mm N.M.I. W.286

Bibliography

Coffey, George, The Bronze Age in Ireland (1913) Fig. 67 (bottom)

Evans, John, The Bronze Implements...of Great Britain and Ireland (1881), 366, Fig.374.

Wilde, William, Catalogue, 461, Fig.337.

Armstrong (1924, 121 Fig.15, bottom) illustrates a chape with drooping wings found with an example of the usual winged chape at Strabane, Co. Tyrone. Armstrong (p.120) did not state where the chape was preserved, the National Museum authorities know nothing about it.

The chape has continental parallels, an example from Forêt de Francfort near Niederrad, France may be cited (Déchelette, 1927, 3, 211, Fig.277. 3).

APPENDIX C

Moulds

All the mould fragments described below are made from clay and are similar structurally, having been built up of two sheaths. The inner and thinner sheath is of fine quality clay approaching a sand-like consistency. The outer is more coarse. In some specimens part of the outer retaining envelope survive.

The method use in making and preparing the mould for casting has been described on p. 10 ff.

Co. Antrim Whitepark Bay

No 1 (Fig. 50 No 1) Portion for casting the pommel end of the handgrip. The fragment is well baked, brownish on the outside with core of greyish material. On the inside a groove runs parallel to the edges

M.M.B. 643:1930

Co. Antrim Whitepark Bay

No 2 (Fig. 50 No 2) The outer coat is 15 mm. in maximum thickness and is yellowish in colour, the inner layer is pinkish in colour and is also about 15 mm. in maximum thickness. In places the outer envelope remains. This fragment was for casting. The handgrip and the portion that was next the metal is dark in colour and may contain patches of verdigris. Two locking knobs occur on the surface and the strengthening rod was incorporated in the outer sheath. The hole is 10 mm. in diameter.

M.M.B. 643. 1930

<u>Bibliography:</u>

Jope, E.M. "Three Late Bronze Age Swords from Ballycroghan, Co. Down, " <u>U.J.A.</u>, 16(1953), 37-40, Pl. 2 No 1

Co. Antrim Whitepark Bay

No 3 (Fig. 50 No 3) This fragment comes from the portion of the mould for casting the shoulder. The outer layer is brown, the inner grey.

M.M.B. 643: 1930

Co. Antrim Whitepark Bay

No 4 (Fig. 50 No 4) Blade portion. The outer layer is red, the inner grey with smooth dark surface along the metal. There is a D shaped perforation in the centre of the outer sheath.

M.M.B. 643:1930

Co. Antrim Whitepark Bay

No 5 (Fig. 50 No 5) Portion of mould for casting tip of blade, brownish in colour throughout.

M.M.B. 643:1930

Bibliography:

Jope, E.M. "Three Bronze Age Swords from near Ballycroghan, Co. Down". U.J.A., 16(1953) 37-40, Pl. 2 No 2

Macalister, R.A.S., Ireland in Pre-Celtic Times (1921), Fig. 42, bottom left.

Co. Antrim Whitepark Bay

No 6 (Fig. 50 No 6) Shoulder portion of mould of "corkey" material. It is greyish in colour but has an outer brownish coat.

M.M.B. 643: 1930

Bibliography:

Macalister, R.A.S., Ireland in Pre-Celtic Times (1921), Fig. 42, bottom right.

Co. Antrim Whitepark Bay

No 7 (Fig. 50 No 7) may be fragment of blade portion of sword mould. It averages 6 mm. in thickness and is grey in colour.

M.M.B. 643:1930

Co. Antrim Whitepark Bay

No 8 (Fig. 50 No 8) This fragment is in such a fragmentary state that it is impossible to state its nature but it may be part of the shoulder portion of a sword mould. The inner sheath is grey in colour and the surface is smooth. The outer sheath is brown in colour.

M.M.B. 643:1930

Co. Antrim Whitepark Bay

No. 9 (Fig. 50 No 9) It is difficult to say with certainty if this fragment formed part of a sword mould and if so from what part of the mould it came. The fragment is about 7 mm. thick and is brownish in colour. Part of the inner surface is covered by a very thin dark layer, and there are two longitudinal grooves.

M.M.B.

Co. Dublin Dalkey Island

On the course of excavation conducted in 1959 by Mr. G.F. Mitchell and Dr. David Liversage of a habitation site situated on the north-western tip of Dalkey Island a number of fragments of clay moulds were discovered. The following six fragments (Nos. 10 to 15) seem to have come from moulds that were used for casting a broad blade, most likely a sword. The numbers refer to the excavation Registration of finds.

No 10 (Fig. 50 No 10) This portion is from near the tip of the blade. It is pinkish in colour and is made from fine clay that contains a number of tiny granite grits and flakes. On the inside there is a shallow broad hollow. The inner layer is now nearly worn off. The middle layer is slightly different in texture and outside this part of the envelope remains, this is coarse and is buff in colour. The fragment is 53 mm. long, 42 mm. in maximum width and 14 mm. in maximum thickness.

2634:(532)

No 11 (Fig. 50 No 11) Similar in texture and colour to the previous fragment. It has been broken down the centre

2522: 524

No 12 (Fig. 50 No 12) Made from sandy clay and is pinkish in colour. The face of the inner layer that came in contact with the metal is buff in colour. On the inner surface just outside the edge of the actual casting portion there is a small depression

2620: 529

No 13 (Fig. 50 No 13) Similar to previous fragment and could have been part of the same mould

2647: 529

No 14 and No 15 (Fig. 50 Nos 14 and 15) These two fragments are similar to each other both in texture and colour. In structure they resemble previous examples and

are buff in colour but with the part next the metal turning to grey

2634, 2073: 502

Co. Dublin Old Connaught

In 1894 a number of archaeological objects, among them mould fragments, and burials were discovered at Old Connaught. The structure, the true nature of which is not altogether clear from Wakeman's account, was situated on a gravel knoll and apparently was surrounded by a broad ditch. From the finds it seems that the site was of different periods and was used both for habitation and burial.

Wakeman illustrates five mould fragments in his 1895 paper. His No 5 (p.107) may be No 16 (Fig. 50 No. 16) and No 8 (p.109) No 17 (Fig. 50 No 17) No 6 (p.107) is also portion of a mould from the back. Another part of a mould is No 3 (p.113). It is just possible that this is the part for the handgrip, but without examining the object this is only surmise. Fig. 5 on the same page could also have come from a sword mould, the groove referred to by Wakeman being the cavity left by the strengthening rod.

With the exception of No 16 it has not been possible to trace the present whereabouts of the other fragments.

<u>Bibliography</u>:

Wakeman, W.F., "A Recently Discovered Sepulchral Mound in the Grounds of Old Connaught, Co. Dublin"
<u>J.R.S.A.I.</u>., 24 (1894), 54-64, Part II <u>ibid</u> 25, (1895), 106-114.

Co. Dublin Old Connaught

No 16 (Fig. 50 No 16) Fragment for casting portion of blade near the tip. Parts of the outer envelope and cavity for strengthening rod still survives.

N.M.I. 1902:24

Co. Dublin Old Connaught

No 17 (Fig. 50 No 17) Fragment of blade portion. At the back there ARE THE remains of the cavity left by the strengthening rod. ~~remains~~.

Illustration based on Wakeman

Co. Fermanagh Boho

No 18 (Fig. 49 No 1) Fragment for casting blade as it approaches the tip. The surface of the portion that would have adjoined the blade is black and in places what appears to be traces of verdigris are visible. The inner core is V shaped and the strengthening rod was built into the base of this. A small portion of the enclosing envelope survives

N.M.I. 1902:25 (B.17:25)

No 19 (Fig.49 No 2) This "blade" fragment consists solely of the inner sheath which is similar to that occurring in the previous example. Indeed, both fragments could very well have formed parts of the same mould.

N.M.I. 1902:24

There is no information available regarding the nature of the site on which the fragments were discovered, but it may be of interest to note that at a meeting of the Royal Society of Antiquaries of Ireland in 1889 Thomas Plunkett, the Local Secretary of the Society for Co. Fermanagh, exhibited portion of a bronze sword mould which is stated to have been discovered on the"surface of an ancient crannoge associated with rude huts which were found at depth of 21 feet underneath peat." The whereabouts of th e site is not recorded but as Plunkett was exhibiting material from Co. Fermanagh it may be assumed that the mould came from that county too.

(J.R.S.A.I., 29(1899),89)

Bibliography:

Hodges, H.W.M. " Studies in the Late Bronze Age in Ireland: 1, Stone and Clay Moulds, and Wooden Models for Bronze Implements," U.J.A. 17(1954) Fig. 2 Nos 1 and 2

Co. Tyrone Lough Eskragh

The following eight fragments of clay moulds were discovered during the summer of 1953, on or near a crannog, as a result of pumping operations that lowered the water-level of Lough Eskragh. The moulds are preserved in the Co. Armagh Museum and the first five specimens have been published by Hodges.

Bibliography:

Hodges, H.W.M., "Some Stone and Clay Moulds, and Wooden Models for Bronze Implements" U.J.A., 17(1954), 61 Fig. 1

Co. Tyrone Lough Eskragh

No 20 (Fig. 49 No 3. Hodges No 1) Fragment of blade portion of clay mould, 100 mm. long and tapering from a width of 55 mm. to 48 mm. In section the fragment is curved and there is a D shaped cavity in the centre.

No 21 (Fig. 40 No 4 Hodges No 2) Fragment of blade portion 72 mm.in maximum length, 55 mm. wide and 15 mm. in maximum thickness. In the centre, in the coarse layer, and extending down the length of the fragment there is a cavity. This contains a rod of charred wood of D section

No 22 (Fig. 49 No 5 Hodges No 3) Fragment of blade portion

56 mm. in greatest length by 57 mm. in extreme width and 17 mm. thick. A D shaped cavity extends down the whole length of the mould.

No 23 (Fig. 49 No 6) Although the inner face is flat it is, nevertheless, possible that this fragment came from the blade portion of a mould. It has been broken longitudinally at the cavity, (not listed by Hodges)

No 24 (Fig. 49 No 7 Hodges No 4) This fragment comes from the pommel and of the mould. The edge of one of the side projections is present and along this and the inside a slight hollow indicates that it was intended to have a flange. This portion may consist of three layers, an outer brittle layer that tends to flake off easily, a more compact middle layer, but still rough and gritty and a thin inner skin of fine sand-like composition.

No 25 (Fig. 49 No 8) Due to the smallness of this fragment it is difficult to state the type of implement that it was used for casting.

No 26 (Fig. 49 No 9) This fragment also appears to be part of the blade portion of a mould. On the sinister side there is evidence of a cavity, but the mould has broken at that point.

No. 27 (Fig. 49 No 10) This fragment is 65 mm. in greatest length by 42 mm in maximum width and it contains the D shaped cavity. Hodges (p.62) was not clear about the exact nature of this fragment and thought that it was part of a mould for casting an implement with a single-edged blade, perhaps a sickle. From an examination it would appear to me that this portion was for casting the handgrip of a sword and from experiments carried out it seems to meet that need quite effectively.

Appendix D

This appendix contains extracts from the literature or other sources concerning bronze swords whose present whereabouts cannot be determined. As, the accounts, which are in themselves not very illuminating, are unaccompanied by an illustration it is not possible to say with certainty if in each case the object is in fact a bronze sword. Only those that appear reliable are included. Notes referring, for instance, to the discovery of two swords in the Bog of Allan (J.R.S.A.I., 3,(1854-5),132), or a "broad sword" in a stone fort near Lettermacaward in 1798 (J.R.S.A.I.,8(1864-6),53) are omitted as the information given is too vague. These swords are not included on the general distribution map (Fig.2)

Co. Antrim

The following six swords have been listed by Watson (The Megalithic and Bronze Ages in Co. Antrim U.J.A.,8(1945), 116-7).

Carmavy

Greencastle (in M.M.B)

Knocklayd Found in peat on the summit of Knocklayd beside the cairn.

Lisburn Formerly in Day Collection" 22 inches long, the broad blade of very unusual outline and grafted on to the handle plate in a peculiar style, four rivet holes" (Catalogue, 43, lot 311)

Portmuck

Rathsherry Formerly in the Knowles Collection lot 653

Co. Cavan Cootehill district

A bronze sword, in private possession was found near Cootehill a few years ago. It may be a Class 5 weapon. Information from Mr. T.J. Barron.

Co. Cork Creighmore/Shankill

A report in the J.R.S.A.I., 16(1884), 179, states that portion of a bronze sword, found in the summer of 1877 in the bed of the River Womanagh, between the townlands of Creighmore and Shankill, Co. Cork, was presented to the Society.

When found the sword was 16¼ inches long and consisted of a blade 12¾ inches and a hilt 3½ inches long. A ridge ran parallel to the edges and the blade was 1½ inches in maximum width. The handgrip had two rivet holes, one at the junction with the shoulder and the other near the pommel end "where the haft forked off, and curved round to a point at each side." The handgrip was cracked at the lower rivet hole. The finder in attempting to use the weapon as a tool broke off the grip and the lower 2½ inches of the blade. Both of these parts were lacking in 1884 and what survived was 10½ inches long.

The forking of the pommel end suggests a sword of Class 6

Bibliography:

J.R.S.A.I., 16(1884), 179.

J.C.H.A.S., 10(1901), 126.

Co. Donegal Innishowen

At a meeting of the Royal Society of Antiquaries held at Ballymena in August 1883 Robert Day exhibited a bronze leaf-shaped sword that was found "west of Innishowen." It measured 23 inches and ½ an inch is broken off the top. The "handle

part had 9 rivet holes. Part of the surface is smooth and bears a " lustrous pea-green patination " but other portions have an encrusted deposit.

Bibliography:

J.R.S.A.I., 16 (1884), 117

Co. Fermanagh Crom

Thomas Plunkett exhibited and described a "very fine well-formed bronze sword 25¼ inches long at a meeting of the Royal Society of Antiquaries of Ireland in 1899. The sword was found near the old Castle of Crom, on the shore of Upper Lough Erne, about three miles from Newtownbutler.

Bibliography:

J.R.S.A.I., 29(1899), 89

Co. Kerry Cool

A "yellow bronze sword" found at Cool was "sold to Dr. Whittaker of Dublin about twenty-five years ago".

Bibliography:

Westropp, Thomas Johnson, "Notes on Promontory Forts and Similar Structures in Co. Kerry" J.R.S.A.I., 42(1912),301

Co. Kerry Killarney

There is a record in the National Museum to the effect that a bronze sword from Killarney was in the 1930's preserved in the Vor Geschichteliches Museum, Berlin. From the accompanying pencil sketch the sword appears to have been a perfectly good Class 5 weapon 504 mm. long. The same source also notes a similar sword from Aughrim (Co. Kerry).

An enquiry to the Berlin Museum revealed that most of the material is as yet unpacked and the whereabouts of the swords is unknown.

Shanagoonah

Discovered during drainage operations on the River Nore "four or five bronze swords, two of the largest are about 18 inches long in the blade; the others about 12 inches long. They were double edged and had a peculiar leaf-shaped enlargement of the blade towards the point". All were found about twelve inches below the channel of the modern river.

Bibliography:

Harpur, S.C., J.R.S.A.I., 1,(1849-51), 30

Co. Leitrim Drumconor

About 1900 an "instrument like a chisel or a long rusty brass knife" was found in a bog at Drumconor. The object was given by the finder to a travelling tinsmith for a new tin can!

Bibliography:

Meehan, Joseph, " Find of Bog Butter, Canoe and Bronze Sword in Co. Leitrim", J.R.S.A.I., 35(1905-6),171

Co. Wicklow Knocktemple

Mr. Price notes that there is a bronze leaf-shaped sword 2 feet 6 inches long in the National Museum of Ireland. According to the Museum Register (No. 1915:11) it was found at Knocktemple, Co. Wexford. There is no such place in Co. Wexford but there is a Knocktemple near Roundwood. As Price cautiously remarks the location given for the find is probably imaginary.

Bibliography:

Price, L., "The Ages of Stone and Bronze in Co.Wicklow P.R.I.A., 42, (1934-5), 59

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I am especially grateful to the authorities of the following Museums for every facility to study material in their charge. In particular I wish to mention the Director (Mr. A.T. Lucas) and the Keeper of Irish Antiquities (Dr. J. Raftery) of the National Museum of Ireland not only for making the large number of swords preserved in that institution available but also for providing photographs of the sword associations that are housed in the Museum. I also wish to record my gratitude to Mr. L.N.W. Flanagan, Keeper of Antiquities, Municipal Museum, Belfast for facilities and for providing illustrations of all the swords in his care.

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FOOTNOTES

1 Referring to the great increase in the production of weapons at that time Mrs. Maxwell-Hyslop (1956,132) thinks that this was necessitated by the Urnfield invasions and that new methods of warfare impelled smiths to invent new types and to improve old ones.

2 A pit that perhaps served such a purpose was discovered at Jarlshof (Curle, op. cit., 91-2, fig. 8). It was eleven inches deep and was filled with sand. On the surface three particles of bronze were observed. The centre of distribution of the mould fragments was adjacent and nearby was a hearth showing that a fire of considerable intensity had been lighted there.

3 Coghlan (1953,99) has noted that the process of casting employed in antiquity allowed segregation of the metals to occur.

4 Hodges (1954,70) thought that a stone mould figured by J.J. Worsaae (Mem.Soc.Roy.Ant. du Nord (new series) 1872-7 (1877),142) was used in the manufacture of Class I swords but Mr. Dennis Britton considers the stone mould Reg.No. 1882:88 in the National Museum of Ireland to be the object referred to. This mould is in two parts, it is 20 inches long with the object depression 14.4 inches long. In Mr. Britton's view this mould was for casting a dirk with a trapezoidal hilt that had an extension above and an ogival shaped blade.

5 The origin of these swords may be somewhat more complicated Professor Hawkes thinks that the Rixheim rapier may also have contributed and such rapiers are not unknown in England (Briscoe and Furness, 1955)

6 The Belfast Museum register records that No 11 was found with some fragments of gold and a piece of ring money at Strabane in 1879. Apart from the sword none of the other objects are in the Museum. Armstrong's Catalogue of Gold Ornaments has no mention of such a find.

7 This section in the catalogue is followed by description of blade fragments. These are all from the lower portion and are of lozenge section. As such they could either belong to Classes 1 or 2 but it should be noted that Nos. 37 and 42 have a groove parallel to the edge.

8 Mr. Cowen has drawn my attention to a sword in the Prehistoric Museum, Munich. This is unlocalised, the grip terminal is missing but otherwise the sword is well preserved. In form the weapon is similar to Class 3A weapons and Mr. Cowen considers it as an Irish piece.

9 The influence may be greater than has been hitherto though. It seems appropriate to assign to this horizon the gold hoards from St.Johns, Co. Kildare and Derrinboy, Co. Offaly, as well as a few isolated objects.

The St. Johns hoard consists of two twisted bracelets with plain terminals (Armstrong, 1933, 61 Nos. 82.3. Pl.13, 105, 110), two "tress rings" (op.cit., 89, Nos. 377-8, Pl.10, 58-59), and a penannular bracelet of round section with slightly thickened terminals (op. cit., 79, No. 264, Pl. 18, 376). The "tress rings" link the group to Derrinboy where two similar rings and two cylindrical penannular ribbed bracelets were found with a necklet and a copper wire of round section (Raftery, 1961). On the bracelet and ring ornament Raftery assigned the hoard to the seventh century. It is true that fine-groove decoration is found on penannular ear-rings of triangular section and repousse and punched ornament is a feature of gorgets. But despite that most of the types that these two hoards contain find their closest parallel among ornament horizon bronzes (Smith, 1959).

In addition to the Derrinboy examples there are similar bracelets from Dysart, Co. Westmeath and Skreen, Ardnaglass, Co. Sligo (Armstrong op. cit., 93 Nos. 409-10, Pl. 8, 42-3) and despite the apparent similarity of the ornament to that of the gorgets the best parallels are the broad penannular bracelets with longitudianl ribbing from ornament horizon

contexts such as Ramsgate (Inv. Arch., G.B. 48,3) or Edington Burtle (ibid. 44,4). These bracelets are made from cast bronze and the ribbing occurs on the outer face only, the inner being plain, but this difference may be the result of the artificier producing the article in another medium. The technique of hammering into relief from the reverse side was used at the beginning of the Bronze Age as the Melfort bracelet shows (Stevenson in Powell 1953,170) and it is doubtful if fine parallel grooves are sufficiently sensitive to indicate connections with any other type. It is not easy to suggest parallels for the "tress rings" unless that they are a varient bracelet form.

As a parallel for the twisted bracelets from St.Johns one can cite the cast bronze bracelet from Barton Bendish (Inv. Arch. G.B. 7,9) and theplain St.Johns bracelet may also have its origin in the bronze bracelets, usually of lozenge section but sometimes of rounded or irregular cross-section and with plain contingent or closely set ends, i.e. Monkswood (Inv. Arch. G.B. 42,3-7). The plain St.Johns bracelet is not alone one may cite a similar ornament from Co. Kildare (Armstrong, op. cit., 78 No 260 Pl.18, 370) and it may be that the type went on and developed into the bracelets with swollen terminals that are regularly expanded all round, Proudfoot's (1955, 15) Type I. The Derrinboy wire can be compared to that from Bishopsland (O'Riordain 1946, Pl.13, 4)

Thus nearly all the types represented in both the St. John's and Derrinboy hoards can be paralleled in theLate Middle Bronze Age hoards of Somerset and elsewhere as studied by Miss Smith (1959). Isolated objects that may belong to the same period is a pin with flat circular head and loop on stem (Evans 1881, 371, Fig. 457), a similar pin forms part of the Glentrool hoard (Callander 1922-3, 137, Fig. 3.14). There is a pin in the British Museum (B.A.Guide 1920, 103) with small disc head and swollen engraved body with side loop below.

The bronze pin from near Enniskillen with decorated neck and slightly cupped head (Wakeman 1879, 98-9) may be related (on pins see Hawkes, 1942, 26 ff and for re-accessment of the dating Smith 1949,161). The coiled gold ring from Castle Coote (Day Catalogue 65, No 450, Pl. 20) may be a form of spiral ring like, for example, that from Barton Bendish (Inv. Arch. 7,12). The Irish gold torques may also be bound up in these inter-relations. It is again possible that in the hands of an experienced gold worker a torque like the cast example from Barton Bendish with simple hooked ends would be developed into the elaborate Tara type. It may also be noted that ribbon torques or bracelets are known from ornament horizon hoards.

(Edington Burtle Inv. Arch. G.B. 44, 2)

10 The round bronze shields of the British Isles are being studied by Dr. J.M. Coles. He derives the British series from the Nipperwiese form and also places their arrival at the beginning of the Late Bronze Age.

11 Only one trumpet has been found in England, but its present whereabouts is not known. The trumpet was found near Battle, Sussex before 1786 (Curwen 1937, 209, Fig. 62) Mac White (1945,90) assigns it to his A2 group but as Curwen noted the Danish S trumpets provide its nearest analogies.

12 Mac White (1945, 93) believes that the B trumpets are native.

13 Up till recently some of the Urns, especially cordoned and encrusted urns (Fox, 1927), were usually assigned to a Late Bronze Age date but more recent work (e.g. Prendergast 1960,9) is pushing the urn back to the Middle Bronze Age.

14 A gold penannular bracelet from Kilmeena, Co. Mayo (Report N.M.I. 1931,2,Pl.5.1) appears to have terminals that expand outwards only. It may be a Type II piece.

15 Another habitation site usually dates to the Late Bronze Age is Cush (O'Riordain P.R.I.A., 45 (1940), 88-181). If ring forts 4 and 5 are earlier than the urn burials this would, on recent evidence (see note 13) imply a Middle Bronze Age date. The status of Cush may require re-examination.

16 Two associated objects are treated as a hoard even if they belong to the same type. On Irish hoards of bronze objects in general see Hodges U.J.A., 20,(1951), 51-63. In Table I Hodges lists as ahoard a sword, socketed gouge and sunflower pin from Knocknalappa crannog, Co. Clare (No.11). He also includes in the same Table (No. 12) a sword and socketed gouge from Roscoe in the same county. Unfortunately Hodges has drifted into error for in both instances he is dealing with the same thing. In fact Rossroe is the lake in which Knocknalappa crannog is situated and it was the finding on the surface of the crannog's foreshore in 1936 of the sword, the gouge, and a stone axe (Mahr, 1937, 387, Fig. 25) that led to the excavation of the crannog by Dr. Raftery (1942, 53-72). The sunflower pin was discovered in the course of the excavation, but the site produced other finds such as several amber beads, and flat-rimmed ware. Since 1937 it has been usual to accept these objects as coming from the crannog (i.e. Childe 1940, 208, Fig. 76) but as has been pointed out there is no justification for it. The Knocknalappa "hoard" cannot be accepted as an associated find of objects that were lost or deposited at the same time. This is not, of course, denying the possibility that the sword, and gouge were used by the builders or inhabitants of the crannog.

Hodges' hoard No 31 from the Doon, Co. Offaly must also be rejected, as this consists of objects that had been drifting into the National Museum over a long period as an examination of the relevant documents in the Museum show. The same applies to the Clonmel "hoard" noted in the Report N.M.I., 1932-3, 14.

17 It should be noted that a socketed axe and socketed gouge were discovered on the same island but perhaps at a late date.

They were acquired by the Royal Irish Academy in 1917 and are now in the National Museum of Ireland. Both objects are in a bad state of preservation and the surface is covered with a thick green patina. The axe is square sectioned at the mouth and the loop has been broken off. Portion of the socket of the gouge has also been broken off (Armstrong, P.R.I.A., 26c (1922), 149).

The damaged condition of these objects and the green patination makes it tempting to suggest that they may be some of the missing pieces. This is only a near hypothesis and cannot be established.

18 Another Irish connection with the Němějice piece may be provided by the birds which are similar to those occurring on the Dunaverney flesh hook (B.M. B.A. Guide, Fig. 109). At least some fleshhooks have been found in these islands in contexts suggesting a seventh century B.C. date, i.e. Ballinderry No 2 (Hencken, 1942, 12-13, Fig. 3, 528, 756) and Lulworth (Drew, 1935, 449-51, Fig.1)

19 One may also cite the razor handle from the burial at Biez, Belgium, which may be dated to HA. B (Inv. Arch. Belgium B.8.2.)

20 I am grateful to Dr. J.M. Coles for information regarding the up-dating of the Braes of Gight and other similar hoards in Scotland.

21 As the name of Dowris has gained widespread currency it has been retained rather than the more obscure, if accurate, Whigsborough.

22 Cooke in his 1849 paper states that he is joint author of the May 1833 note.

23 Apart from the Dowris crotals Dr. Raftery tells me that there is one isolated example in the National Museum.

24 Miss Burley lists nine socketed gouges from Scotland. Her list is, however, not complete and omits the socketed gouge that was found in association with a socketed axe in a peat bog at Achnahanaid, Portree, Skye (Fell 1951,72)

25 St. Kanzian is situated east of Trieste, it was formerly within the Austrian Empire, later in the Kingdom of Italy, and now just within the Jugoslavian border. Its current name is Škocijan (Hawkes and Smith 1957, 140 f.n.1).

26 Armstrong gives the find place as Knockadoo near Lough Gara, Co. Sligo but this does not appear to be correct. True, the situation is complicated by the fact that there are two townlands of that name in Co. Sligo and one in Co.Roscommon. An examination of the Primary Valuation of Ireland (1858) shows that in 1858 the lessor of all the lands in the townland of Knockadoo, Co. Roscommon was Viscount Lorton whose seat was Rockingham House, Boyle. The same source records that the lessor of some of lands occupying one of the Co.Sligo Knockadoos was Sir Gilbert King who also resided in Co.Roscommon. Curiously enough the family name of Lord Lorton was also King (Burkes Peerage and Baronetage of the United Kingdom (1866 edition), but otherwise the families appear to be distinct and not related. We can therefore conclude that the objects were discovered in the townland of Knockadoo, Co.Roscommon.

27 I am indebted to Professor M.J. O'Kelly for some of these details.

SOURCES CONSULTED

Abbreviations:

A.J.A.	American Journal of Archaeology.
Ant.	Antiquity.
Ant. J.	Antiquaries Journal.
Arch.	Archaeologia.
Arch. Ael.	Archaeologia Aeliana.
Arch. Camb.	Archaeologia Cambrensis.
C.L.A.J.	County Louth Archaeological Journal.
J.C.H.A.S.	Journal of the Cork Historical and Archaeological Society.
J.G.A.H.S.	Journal of the Galway Archaeological and Historical Society.
J.R.S.A.I.	Journal of the Royal Society of Antiquaries of Ireland.
J.W. and S.E.I.A.S.	Journal ofthe Waterford and South-east of Ireland Archaeological Society.
N.M.A.J.	North Munster Antiquarian Journal.
P.P.S.	Proceedings of the Prehistoric Society.
P.R.I.A.	Proceedings ofthe Royal Irish Academy.
P.S.A.S.	Proceedings of the Society of Antiquaries of Scotland.
U.J.A.	Ulster Journal of Archaeology.

Anderson, Joseph. (1878-9). Notice of a remarkable find of bronze articles in Edinburgh; with notes on bronze swords found in Scotland, P.S.A.S., 13 (1878-9),320-33.

---------- . (1886) Scotland in Pagan Times: Bronze and Stone Ages. (Edinburgh 1886)

---------- . (1892) The Balmashanner Hoard, P.S.A.S., 26(1892),182-8.

Armstrong, E.C.R. (1922). Some Irish Bronze Age Finds, P.R.I.A., 36c.(1922), 134-49.

---------- . (1922A) The Halstatt Period in Ireland, Ant. J., 2 (1922),204-7,

---------- . (1923) Two Irish Bronze Age Finds containing Rings, Ant. J., 3 (1923),138.

---------- . (1924) The Early Iron Age or Hallstatt Period in Ireland, J.R.S.A.I., 54(1924), 1-14, 109-127.

---------- . (1933) Catalogue of Irish Gold Ornaments in the Collection of the Royal Irish Academy (2nd. ed. Dublin 1933)

Benton, Sylvia, (1931) The Excavations of the Sculptor's Cave, Covesea, Morayshire, P.S.A.S., 65(1931,172-216

Brailsford, John. (1947) A Founder's Hoard from Dartford, Kent, with a note on Socketed Bronze Swords, P.P.S., 13(1947),175-7.

Brewis, W.Parker. (1922-3) The Bronze Sword in Great Britain
Arch., 73(1922-3), 253-65

Briscoe, Lady and Furness, Audrey. (1955) A Hoard of Bronze Age Weapons from Eriswell near Mildenhall,
Ant. J., 35(1955), 218.

British Museum. (1920) A guide to the Antiquities of the Bronze Age, (London 1920)

-------- . (1953) Later Prehistoric Antiquities of the British Isles.
(London, 1953)

Britton, Dennis. (1960) The Isleham Hoard, Cambridgeshire,
Ant., 34 (1960), 279-82

Burley, Elizabeth (1955-6) A Catalogue and Survey of the Metal Work from Trapain Law,
P.S.A.S., 89(1955-6) 118-226.

Butcher, Charles H. (1922) A Hoard of Bronze discovered at Grays Thurrock,
Ant. J., 2(1922), 105-8,

Butler, Jay Jordan. (1958) Relations between the British Isles and Northern Europe in the Bronze Age.
Unpublished thesis, Institute of Archaeology, University of London, 1958

Callander, J. Graham. (1922-3) Scottish Bronze Age Hoards,
P.S.A.S., 57 (1922-3), 123-66

Catling, H.W. (1956) Bronze Cut-and-thrust Swords in the East Mediterranean,
P.P.S., 22(1956), 102-25.

Childe, V. Gordon. (1935) The Prehistory of Scotland. (London, 1935).

----------.(1940) Prehistoric Communities of the British Isles. (London 1940).

---------- .(1942-3) A Hoard of Axes from Ballymore, Cowal, Argyll, P.S.A.S. 77 (1942-3), 184-7.

_____ .(1946) Scotland Before the Scots. (London, 1946).

---------- .(1948) The Final Bronze Age in the Near East and in Temperate Europe, P.P.S., 14 (1948), 177 - 95.

---------- .(1951) Prehistoric Migrations in Europe. (Oslo, 1951)

Chitty, Lily F. (1940) Bronze implements from the Oswestry region of Shropshire, Arch. Camb., 95 (1940), 27-35.

Clark, J.G.D. and Godwin, H. (1940) A Late Bronze Age Find near Stantney, Isle of Ely. Ant. J., 20 (1940), 52-71.

Clark, J.G.D. (1952) Prehistoric Europe: The Economic Basis. (London 1952).

Coffey, George (1893-6) Notes on the classification of Spearheads of the Bronze Age found in Ireland. P.R.I.A., 30 (1893-6), 486-510.

---------- .(1906) Early Iron Sword found in Ireland. P.R.I.A., 26C (1906-7), 42-3.

Coffey, George. (1911) Further Notes on the Development of the Spearhead, J.R.S.A.L., 41 (1911), 20-24.

---------- . (1912) Some Recent Prehistoric Finds Acquired by the Academy, P.R.I.A., 30C (1912), 83-93.

---------- .(1913) The Bronze Age in Ireland. (Dublin, 1913).

Coghlan, H.H. (1953) Studies of British and Irish Celts, Mann. 53 (1953), 99.

---------- .(1955) Metal Implements and Weapons, Singer et.al. History of Technology Vol. I. 600-22, (Oxford, 1955).

Coles, J.M. and Livens, R.G. (1957-8) A Bronze Sword from Douglas, Lanarkshire, P.S.A.S., 91 (1957-8), 182-6.

Cowen, J.D. (1933) Two Bronze Swords from Ewart Park, Wooler, Arch. Ael., 10 (1933), 185-98.

---------- .(1948) A Note on the Relative Chronology of the Late Bronze Age in Britain and the Montelian System in Northern Europe, P.P.S., 14 (1948), 233-4.

---------- .(1951) The Earliest Bronze Swords in Britain and their Origins on the Continent of Europe, P.P.S., 17 (1951), 195-213.

Cowen, J. D. (1952) Bronze Swords in Northern Europe: a reconsideration of Sprockfoffs Griffzunschwerter, P.P.S., 18, (1952), 129.147.

Cowen, J.D. and Maryon, H. (1935) The Whittingham Sword, Arch. Ael., 12 (1935), 280-309.

Crawford, O.G.S. and Wheeler, R.E.M. (1921) The Llynfawr and other Hoards of the Bronze Age, Arch., 71 (1921), 133.

Crawford, O.G.S. (1922) A Prehistoric Invasion of England, Ant. J., 2 (1922), 27-35.

Curle, Alexander O. (1932-3) Account of Further Excavations in 1932 of the Prehistoric Township at Jarlshof, Shetland, P.S.A.S., 67, (1932-33), 82-136.

Curwen, E. Cecil. (1937) The Archaeology of Sussex. (London, 1937).

---------- .(1948) A Bronze Cauldron from Sompting, Sussex, Ant. J., 28 (1948), 157-163.

Day, Robert. (1880) Find of broken Bronze Things, including Fragment of Sword Scabbard, J.R.S.A.I., 15 (1880), 265-6.

Déchelette, Joseph. (1927) Manuel D'Archéologie Prehistorique, Celtique et Gallo-Romanine. (2nd. ed. Paris 1927).

Doyle, D.M. (1940) Find of Bronze implements near Arklow, J.R.S.A.I., 70 (1940), 94.

Drew, C.D. (1935) A Late Bronze Age Hoard from Lulworth, Dorset, Ant. J., 15, (1935), 449-51.

Dunning, G.C. (1959) The Distribution of Socketed Axes of Breton Type, U.J.A., 22 (1959), 53-5.

Ebert, Max. (1926) Reallexicon der Vorgeschichte. (Berlin, 1926).

Evans, E. Estyn. (1930) The Sword-bearers Ant., 4 (1930), 157-172.

---------- .(1933) The Bronze Spearhead in Great Britain and Ireland, Arch., 83 (1933), 187-202.

Evans, E. Estyn and Mitchell, G.F. (1954) Three Bronze Spearheads from Tattenamona, near Brookeborough, Co. Fermanagh, U.J.A., 17 (1954), 57-61.

Evans, John. (1881) The Ancient Bronze Implements, Weapons, and Ornaments of Great Britain and Ireland. (London, 1881).

---------- .(1884) A Hoard of Bronze Objects found in Wilburton Fen, near Ely, Arch., 48 (1884), 106-14.

Fell, C.I. (1951) Socketed bronze axe and gouge from Skye, Ant. J., 31 (1951), 72.

Fox, Cyril. (1923) The Archaeology of the Cambridge Region. (London, 1923).

Fox, Cyril. (1927) An 'Encrusted' Urn of the Bronze Age from Wales: with notes on the Origin and Distribution of the Type, Ant. J., 7 (1927), 115-33.

---------- . (1933) P.P.S.E.A., (1933), 158.

---------- . (1939) A Secord Cauldron and an Iron Sword from the Llyn Fawr Hoard, Rhigos, Glamorganshire, Ant. J., 19 (1939), 367-404.

---------- . (1958) Pattern and Purpose: A Survey of Early Celtic Art in Britain. (Cardiff, 1958).

Gordon, D.H. (1953) Swords, Rapiers and Horse-riders, Ant., 27 (1953), 67-78.

Gray, H. St. George. (1925) A Gold Ornament found at Castle Cary, Somerset, Ant. J., 5 (1925), 141-4.

Greenwell, W. (1894) On the Antiquities of the Bronze Age Found in the Heathery Burn Cave, Co. Durham, Arch., 54 (1894), 87-114.

Greenwell, William and Brewis, William Parker (1909) The Origin, Evolution and Classification of the Bronze Spear-head in Great Britain and Ireland, Arch., 61 (1909), 439-72.

Grimes, W.F. (1939) Gui-de to the Collection Illustrating the Prehistory of Wales. (1939.

Hartnett, P.J. (1953) Late Bronze Age Hoard from Garden Hill, Co. Fermanagh, J.R.S.A.I., 83 (1953), 101-3.

Hamilton, J.R.C. (1956) Excavations at Jarlshof, Shetland. (Edinburgh, 1956).

Hawkes, C.F.C. (1938) A Hallstaff bronze sword from the Thames at Taplow, Ant. J., 18 (1938), 185-7.

---------- . (1941) The Looped or Leaf-shaped Bronze Spearhead, P.P.S., 7 (1941), 128-31.

---------- . (1942) The Deverl Urn and the Picardy Pin, P.P.S., 8 (1942), 26-47.

---------- . (1948) From Bronze Age to Iron Age: Middle Europe, Italy and the North and West, P.P.S., 14 (1948), 196-218.

---------- . (1959) The A.B.C. of the British Iron Age. Ant., 33 (1959), 170-82.

Hawkes, C.F.C. and Smith, M.A. (1957) On Some Buckets and Cauldrons of the Bronze and Early Iron Ages, Ant. J., 37 (1957), 131-98.

Hemp, W.J. (1925) The Trunnion Celt in Britain, Ant.J., 5 (1925), 51-4.

Hencken, Hugh. (1942) Ballinderry Crannog No. 2, P.R.I.A., 47C (1942), 1-76.

---------- . (1950) Herzsprung Shields and Greek Trade, A.J.A., 54 (1950), 295-309.

---------- . (1951) Paleo-botany and the Bronze Age, J.R.S.A.I., 81 (1951), 53-64.

Henderson, William. (1937-8) Scottish Late Bronze Age Axes and Swords, P.S.A.S., 72 (1937-8), 150-79.

Hodges, H.W.M. (1954) Studies in the Late Bronze Age in Ireland: 1. Stone and Clay Moulds, and Wooden Models for Bronze Implements, U.J.A., 17 (1954), 62-80.

---------- . (1955) The Excavation of a Group of Cooking-places at Ballycroghan, Co. Down, U.J.A., 18 (1955), 17-28.

---------- . (1956) Studies in the Late Bronze Age in Ireland: 2. The Typology and Distribution of Bronze Implements, U.J.A., 19 (1956), 29-56.

---------- . (1957) Studies in the Late Bronze Age in Ireland: 3. The Hoards of Bronze Implements, U.J.A., 20 (1957), 51-63.

---------- . (1957A) Some Recent Finds of Bronze Implements, U.J.A., 20 (1957), 64-9.

Jope, E.M. (1951) A Late Bronze Age Shield Mould of Wood from Co. Antrim, U.J.A., 14 (1951), 62-5.

---------- . (1953) Three Late Bronze Age Swords from Ballycroghan near Bangor, Co. Down, U.J.A., 16 (1953), 37-40.

---------- . (1954) An Iron Age Decorated Sword-scabbard from the River Bann, U.J.A., 17 (1954), 81-91.

Keef, P.A.M. (1953) Two Gold penannular ornaments from Harting Beacon, Sussex, Ant. J., 33 (1953), 204-6.

Kemble, J.M. (1863) Horae Ferales.
(ed. Latham and Franks, London, 1863).

Kendrick, T.D. and Hawkes, C.F.C. (1932) Archaeology in England and Wales 1914-1931. (London, 1932).

Leech, E. Thurlow. (1930) A Bronze Cauldron from the River Cherwell, Oxfordshire, with notes on Cauldrons and other Bronze vessels of allied Types,
Arch., 80 (1930), 1-36.

Macalister, R.A.S. (1949) The Archaeology of Ireland.
(2nd. ed., London, 1949).

Mac White, Eoin. (1944A) Amber in the Irish Bronze Age,
J.C.H.A.S., 49 (1944A), 122-7.

---------- . (1944B) The Bronze Socketed Gouge in Ireland,
J.R.S.A.I., 74 (1944B), 160-5.

---------- . (1945) Irish Bronze Trumpets,
J.R.S.A.I., 75 (1945), 85-106.

---------- . (1947) Sobre unas losas grabadas en el Suroeste de la Peninsula Hispánica y el Problema de los escudos de tipo Herzsprung,
Actas y memorias de la Sociedad Española de Antropología, Etnografía y Prehistoria, 22 (1947), 158.

Mahr, Adolf. (1934) A Wooden Cauldron from Altertate, Co. Monaghan,
P.R.I.A., 42,C (1934-5), 11-29.

---------- . (1937) New Aspects and Problems in Irish Prehistory,
P.P.S., 3 (1937), 262-436.

Maryon, Herbert. (1935) The Casting on of a Sword Hilt in the Bronze Age, P.S.A., Newcastle-upon-Tyne, 7(1935),41-2.

---------- . (1938) The Technical Methods of the Irish Smiths in the Bronze and Early Iron Ages, P.R.I.A., 44 (1938), 181-228.

---------- . (1938A) Some Prehistoric Metal-workers' Tools, Ant. J., 18 (1938), 243-50.

Maxwell-Hyslop, Rachel.(1956) Notes on some Distinctive types of Bronzes from Populonia, Etruria, P.P.S., 22 (1956), 126-142.

May, A.McL. and Collins, A.E.P. (1959) Cremation Burials at Gortfad, Co. Londonderry, U.J.A., 22 (1959), 33-41.

Megaw, B.R.S. and Hardy, E.M. (1938) British Decorated Axes and their Diffusion during the Earlier Part of the Bronze Age, P.P.S., 4 (1938), 272307.

Montelius, Oscar. (1909) The Chronology of the British Bronze Age, Arch., 61 (1909), 97-162.

Morris, H. (1916) Some Features of Irish Bronze Swords, C.L.A.J., 4 (1916-20), 320.

Mitchell, G.F., O'Leary, M. and Raftery, J. (1941) On a Bronze Halberd from County Mayo and a Bronze Spearhead from County Westmeath, P.R.I.A., 46C (1941), 287-98.

Muirhead, George (1890-1) Notice of Bronze Ornaments and a thin bifid blade of Bronze from the Braes of Gight, Aberdeenshire, P.S.A.S., 25 (1890-1), 135-8

6'Riordain, Sean. P.(1937) The Halberd in Bronze Age Europe, Arch., 86 (1937), 195-321.

---------- . (1946) Prehistory in Ireland 1937-46, P.P.S., 12 (1946), 142-71.

---------- . (1954) Lough Gur Excavations: Neolithic and Bronze Age Houses on Knockadoon, P.R.I.A., 56C (1954), 297-459.

Peake, Harold. (1922) The Bronze Age and the Celtic World. (London, 1922).

Peake, Harold and Fleure, Herbert John. (1933) The Horse and the Sword. (Oxford, 1933).

Piggott, C.M. (1946) The Late Bronze Age Razors of the British Isles, P.P.S., 12 (1946), 121-41.

Piggott, Stuart. (1955) Review of W. Glasbergen, Barrow Excavations in the Eight Beatitudes, Ant, J., 35 (1955), 235-37.

---------- . (1955A) The Archaeological background, Wainwright The Problem of the Picts, 54-65, (Edinburgh, 1955).

---------- . (1952-3A) Three Metal-work Hoards of the Roman Period from Southern Scotland, P.S.A.S., 87 (1952-3), 1-50.

---------- . (1952-3B) A Late Bronze Age Hoard from Peebleshire, P.S.A.S., 87 (1952-3A), 175-86.

Power, Rev. P. (1898) A Find of Bronze Implements in Co. Waterford, J.Wand.S.E.I.A.S., 4 (1898), 47-53.

Prendergast, Ellen. (1960) Burial Mound of the Bronze Age at Kilmore, Co. Westmeath, J.R.S.A.I., 90 (1960), 5-9.

---------- . (1961) Group of Bronzes from Charleville Forest, Co. Offaly, J.R.S.A.I., 91 (1961), 51-5.

Prendergast, Ellen and Mitchell, G.F. (1960) Amber Necklace from Co. Galway, J.R.S.A.I., 90, (1960), 61-6.

Proudfoot, V. Bruce.(1955) The Downpatrick Gold Find. (Belfast, 1955).

Raftery, Joseph. (1940) A Suggested Chronology for the Irish Iron Age, Feil-Scribhinn Eoin Mhic Neill. (Dublin, 1940).

---------- . (1942A) Knockalappa Crannog, Co. Clare, N.M.A.J., 3 (1942), 62-4.

---------- . (1942B) Finds from Three Ulster Counties, U.J.A., 5 (1942), 120-31.

---------- . (1951) Prehistoric Ireland. (London, 1951).

---------- . (1961) The Derrinboy Hoard, Co. Offaly, J.R.S.A.I., 91 (1961), 55-8.

Richardson, James S. (1924-5) A Hoard of Bronze Objects from Wester Ord, Ross-shire, P.S.A.S., 59 (1924-5), 113-6.

Savory, H.N. (1948) The 'Sword Bearers'. A Reinterpretation, P.P.S., 14 (1948), 155-76.

---------- . (1958) The Late Bronze Age in Wales: Some New Discoveries and New Interpretations, Arch. Camb., 107 (1958), 3-63.

Shepperd, T. (1941). The Parc-y-Meirch Hoard, Denbigshire, Arch. Camb., 96 (1941), 1-10.

Smith, M.A. (1959) Some Somerset Hoards and their Place in the Bronze Age of Southern Britain, P.P.S., 25 (1959), 144-87.

Smith, M.A. and Blin-Stoyle, (1959) A Sample Analysis of British Middle and Late Bronze Age Materials using Optical Spectrometry, P.P.S., 25 (1959), 188-209.

Sprockhoff, E. (1930) Zur Handelsgeschichte der Germanischen Bronzezeit, Vorgeschichliche Forchungen, 1930.

Stevenson, R.B.K. (1957-8) A Wooden Sword of the Late Bronze Age, P.S.A.S., 91 (1957-8), 191-2.

Wakeman, W.F. (1878) Bronze Pin and Carved Wooden Vessel, Co. Fermanagh, J.R.S.A.I., 15 (1879-82), 97-8

---------- . (1894) A Recently discovered Sepulchral Mound in the Grounds of Old Connaught, Co. Dublin, J.R.S.A.I., 24(1894),54-64 and 25(1895), 106-114.

---------- . (1898) On the Antiquity of Iron as used in the Manufacture of certain Weapons, Implements and Ornaments, found in Ireland, J.R.S.A.I., 28 (1898), 237-44.

Way, Albert. (1866) Notice of Ancient Relics found at Llangwyllog in Anglesey, Arch. Camb., 12 (1866), 97-111.

Wheeler, R.E.M. (1925) Prehistoric and Roman Wales. (Oxford, 1925).

---------- . (1927) Bronze Implements from the City of London, Ant. J., 7 (1927), 294-8.

---------- . (1929) 'Old England', Brentford, Ant. J., 3 (1929), 20-32.

Wilde, W.R. (1861) Catalogue of the Antiquities in the Museum of the Royal Irish Academy. (Dublin, 1861).

Wood-Martin, W.G. (1895) Pagan Ireland. (London, 1895).

Sale Catalogue of the Day Collection. (1913)

Sale Catalogue of the Knowles Collection. (1924)

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