

THE POETIC EDDA
IN THE LIGHT OF
ARCHÆOLOGY

With Sixty-one Illustrations

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The Poetic Edda in the light of Archæology

By
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PREFACE.

THIS paper was sent to the Viking Society in September, 1924, and read before the Society on April 21st, 1925. For this reason the author has not dealt with researches subsequent to that time. He does not, however, think any new researches have appeared to alter his opinions.

Mr. A. W. Johnston, Professor Dr. R. W. Chambers and Dr. J. Stefánsson have given the author much help in editing the paper, and he wishes to express his warmest gratitude to them.

The paper has been translated from the author's Swedish manuscript by Mr. Grenville Grove, Secretary of the British Legation, Stockholm, to whom the author desires to express his best thanks.

Most of the blocks have been kindly lent by Kgl. Vitterhets Historie och Antikvitets Akademien in Stockholm. For this the author begs to express his respectful gratitude to the Academy and its Secretary, the King's Custodian of Antiquities, Professor Dr. Sigurd Curman.

That most of the objects reproduced are Swedish has been largely caused by the fact that a supply of blocks of these has been accessible in Stockholm.

THE AUTHOR.

Stockholm, October, 1930.

I.

INTRODUCTION.

THIS study has a two-fold purpose. In the first place, I shall endeavour to show the nature of the objects referred to in various passages in the Eddic poems. It is scarcely necessary to point out that such researches are of some importance. It is obvious that a person who reads the Eddic poems with some knowledge of the nature of the objects referred to by the authors will have a clearer and more vivid conception of those passages than a person who reads them without such knowledge. Moreover, the light of archæology thrown on certain obscure passages may point to the correct solution—*e.g.*, where different interpretations are possible from a purely linguistic point of view, or where the text has been suspected on philological grounds solely. In fact, we shall see below examples of how certain passages where the philologists have devoted much labour and thought to the interpretation or reconstruction of the text are cleared up in the light of archæology.

Secondly, I shall endeavour in this study to assist in the solution of the questions as to the age of the Edda legends and the Eddic poems. These questions are at present under reconsideration; views which had long been regarded as definitely established have proved to be untenable. Archæology should be able to contribute its share in such discussions. Hitherto, however, those who have addressed themselves to the chronological problem have availed themselves but little of the aid of archæology.

II.

EARLY AND MORE MODERN OPINIONS ON THE AGE AND HOME OF THE EDDIC POEMS AND THE EDDA TALES.

THE poetic Edda is known to consist of some forty ancient Scandinavian lays, written by different authors. The subjects are taken from Teutonic mythology and heroic legends. The Eddic poems are found in Icelandic manuscripts from the Middle ages, most of them in a codex from the period 1250-1300.¹ The Edda songs date, however, from a considerably earlier period than that of the actual texts, and the fact that the songs are found in Icelandic manuscripts does not of course necessarily show that they were composed in Iceland. As to the language, all that can be said is that it was West-Scandinavian; but as late as the eleventh century the language of the Scandinavians differed so little that, as far as the language in which the poems are written is concerned, there is nothing that directly militates against the possibility of their having been composed in Denmark or Sweden.

In the middle of the nineteenth century the Eddic poems in their present form were generally considered to have originated mainly during the period 400-800 A.D., that is, before the Viking age. This opinion was maintained among others by R. Keyser² in 1866 (posthumously), and Svend Grundtvig³ in 1867. As to the question of the home of the Eddic poems, it was at

¹ With regard to this codex and other manuscripts see Jónsson, Finnur, *Den oldnorske og oldislandske Litteraturs Historie*, 2nd ed., Copenhagen, 1920 ff, vol. I., pp. 114 ff; a few of the poems are found only in paper manuscripts from more modern times.

² *Efterladte Skrifter*, I., Christiania, pp. 267 ff.

³ *Om Nordens gamle Litteratur* (excerpt from *Dansk Historisk Tidsskrift*, series 3, vol. 5, pp. 499 ff).

that time eagerly debated whether the lays were exclusively Norwegian or Scandinavian in general. Keyser, like most other Norwegian scholars, considered them to be exclusively Norwegian. Grundtvig, on the other hand, with most other Danish scholars, believed that the Eddic poems were Scandinavian in general; he considered, however, that they originated principally in the regions inhabited by the Danes, the Götär and the Svear.

In the eighteen-sixties, however, some scholars had already begun to cast doubt on the correctness of the accepted chronology and to assign a considerably later date to the poems. One of these scholars, E. Jessen, published in 1871 an essay, "Über die Eddalieder,"¹ in which he tried to prove in detail that the Eddic poems belonged to the period from about 1000 to the beginning of the thirteenth century, with the exception of a few fragments which might possibly be more ancient. Jessen's opinion soon won recognition, though generally in a somewhat modified form, in so far as the *terminus post quem* was pushed back to the ninth or tenth century. All scholars, however, came round to the opinion that the Eddic poems could not possibly be earlier than about 800, and down to the last few years this opinion was considered to be definitely established. The arguments adduced in support of this late date were on various lines, but predominantly linguistic. On runological grounds it was considered to be established that the terminal limit of the Primitive Scandinavian tongue could be fixed at about 800 A.D., and as the Eddic poems are written in Old West-Scandinavian, they must therefore obviously be dated after A.D. 800. That the poems might originally have been composed in the Primitive Scandinavian period and the forms afterwards contracted was considered to be out of the question; it was supposed that the metrical structure

¹ *Zeitschrift für deutsche Philologie*, III., pp. 1 ff.

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would be spoilt if the uncontracted Primitive Scandinavian forms were inserted in the poems.

As to the home of the Eddic songs, Jessen decidedly took the side of those who considered them to be West-Scandinavian. He held that most of the poems were Icelandic. This opinion as to the West-Scandinavian origin of the Eddic poems also gained general recognition and has prevailed down to the present day. It was, however, generally recognized that there was nothing in the language of the Eddic poems to preclude the possibility of their having been composed in Denmark or Sweden. The reasons assigned for the West-Scandinavian origin of the songs are of a general character (the scenery of the poems, the animals mentioned, and so on). The controversy has long centred round the question whether the bulk of the poems were composed in Norway or in Iceland.¹ There is a general consensus of opinion that one of the lays, the *Atlamál*, was composed in Greenland. Certain scholars have also endeavoured to prove the Greenland origin of one or more other Edda songs. Some authors, however, notably Sophus Bugge,² deviated from the prevalent opinion in so far as they considered most of the poems to have been written by Norwegians in Britain. This view, however, must be considered to have been definitely refuted.

In the course of the last few years the view that all the Eddic poems must necessarily be later than about 800 has begun to be abandoned, and it has been suggested that certain songs may possibly be of an earlier date. This result has been reached by different channels.

Firstly, people have begun to realize that the metrical grounds on which the entire poetic Edda was dated later

¹ With regard to the discussion of this question, see Jónsson, *op. cit.*, pp. 54 ff.

² Bugge, S., *Studier over de nordiske Gude- og Heltesagns Oprindelse*, I., II., Christiania, Copenhagen, 1881-96; *idem*, *The home of the Eddic Poems* (= Grimm Library No. 11), London, 1899.

than about 800 do not hold good of all the poems. In 1916 Gustav Neckel, in his treatise *Eddaforschung*,¹ expressed the view that two of the Eddic poems in *fornyrðislag* ("old-lore metre"), *Atlakviða* and *Hamðismál*, could *not* be proved on metrical grounds to be later than 800. These poems, in fact, are so irregular in structure that in their case the metre cannot be said to consist of a definite number of syllables; hence there is no warrant for the statement that their metrical structure would be spoilt if the uncontracted forms were inserted. Erik Noreen, in his paper *Edda-studier*² points out that this applies to another poem in *fornyrðislag*, *Völundarkviða*. In the same paper Noreen has shown that the metrical reasons adduced to prove that the Eddic poems in *ljóðaháttir* ("chant-metre") must be later than about 800 do not hold good of all these poems; here, too, Primitive Scandinavian forms can be inserted in several poems, without destroying the metrical structure. Neither Neckel nor Noreen, however, go so far as to assert that some of the Eddic poems for metrical reasons must necessarily date from the Primitive Scandinavian period. Noreen, however, declares that there are certain reasons for supposing that two of the poems in *ljóðaháttir*, *Vafþrúðnismál* and *För Skírnis* are actually from that period.

Secondly, the discovery of a remarkable runic inscription indicated that the terminal limit assigned for the Primitive Scandinavian language, about 800, was a good deal too late. In the year 1917, while ploughing on the farm of Eggjum, parish of Sogndal, Sogn, Norway, the proprietor discovered a slab with a runic inscription.³ When Professor Haakon Shetelig⁴ later

¹ *Zeitschrift für den deutschen Unterricht*, XXX., p. 87.

² *Språkvetenskapliga Sällskapet i Uppsala Förhandlingar*, 1919-1921 (in *Uppsala Universitets Årsskrift*, 1921), pp. 4 ff.

³ The runestone is described by Magnus Olsen in *Norges Indskrifter med de ældre Runer*, vol. 3, part 2.

⁴ In the work of Olsen, pp. 78 ff., Shetelig has given an account of the further particulars of the discovery and has fixed the date of the grave from an archæological point of view.

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on examined the place, he observed that this slab and some smaller ones had covered a skeleton-grave; the whole construction had been situated below the level of the ground. In the grave the landowner found only an iron knife; when examined by Shetelig a fire-steel, some small fragments of iron and wood and a flint were discovered. The furniture shows that the grave belongs to a man. These simple graves below the level of the ground and with meagre contents are, according to Shetelig, typical of the seventh century in West Norway. The immediately preceding period is distinguished by big mounds and a rich furniture; in the eighth century the grave-goods once again become more valuable, and during the Viking age still more so. This assignment of date is borne out, according to Shetelig, by another circumstance. On the rune stone is engraved a horse, with a bird's head. This head is of a style typical of the seventh century.¹ Obviously as an admission that the archæological limits are rather vague, Shetelig adds that the Eggjum grave possibly, though not probably, may be somewhat later, from the period 700-750. The date assigned by Shetelig is, as far as I understand, from an archæological point of view beyond all contradiction. In my opinion his admission that the grave might possibly belong to the period 700-750 is unnecessary. It is possible that the mode of burial admits of such dating, but I would not agree to date the horse engraved on the runic stone later than the year 700.

The Eggjum stone contains a very extensive runic inscription. It is remarkable that the language is not Primitive Scandinavian, but Old West-Scandinavian, that is to say, the language in which the Eddic poems are composed. The Old West-Scandinavian language must thus have developed out of the Primitive

¹ I might add that it occurs already during the period 550-600.

Scandinavian language already about 700 at the latest.¹

Magnus Olsen in his interpretation of the Eggjum stone already called attention to the consequences as to the dating of the Eddic poems.² Referring to Shetelig's dating of the stone as not later than the year 750, he points out the possibility that certain Eddic poems may have arisen, wholly or in part, in the eighth century. As I am convinced that the Eggjum stone must be dated earlier than the year 700 I think we may be warranted in concluding that some of the Eddic poems may have originated, wholly or partially, in the second part of the seventh century. But whether the Eggjum stone obliges one to consider any of the preserved Eddic poems to be older than about the year 800, Magnus Olsen does not consider himself able to decide.

Even from an historical point of view, the opinion that the Eddic poems must be later than the year 800 has recently been attacked. In his work *Fornsagor och Eddakväden i geografisk belysning*,³ Ture Hederström has arrived at the conclusion that the Edda lays of Helge Hundingsbane were composed during the second part of the seventh century or about 700. Hederström has tried to prove that some of the characters mentioned in the poems are identical with persons in the *Ynglingasaga*, which persons I assign to the seventh century.⁴ The detailed knowledge of localities and persons shown by the authors of the Helge lays and their realistic

¹ Recently Ivar Lindqvist in his dissertation "Galdrar" (Göteborgs Högskolas Årsskrift, 1923, pp. 77 ff.), has tried to prove that the Primitive Scandinavian language came to an end during the sixth century. Compare, however, O. v. Friesen, *Röstenen i Bohuslän och runorna i Norden under folkvandringstiden* (= Uppsala Universitets Årsskrift, 1924, Humaniora No. 4), pp. 24 ff.

² See Olsen, *op. cit.*, pp. 193 ff.

³ After the death of the author edited in two volumes, Stockholm, 1917, 1919, by S. E. Henschen and B. Nerman

⁴ Nerman, *Svärges älsta konungalängder som källa för svensk historia*, Uppsala, 1914, and *Ynglingasagan i arkeologisk belysning*, in *Fornvännen*, 1917, pp. 230 ff.

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character in general prove, as Hederström suggests, that they were composed shortly after the events celebrated. Hederström supposes, however, that the songs in the course of time were often copied and revised in details, and on these occasions garbled and modernized in point of language, until they obtained their present form.

Hederström has also expressed a noteworthy opinion as to the home of the Helge lays. He endeavours to prove that the events recorded in the songs of Helge Hundingsbane occurred in Östergötland and Södermanland. According to Hederström, Helge was king of Östergötland,¹ and consequently the Helge lays must have been composed in that province.

In my view, Hederström has in fact succeeded in proving that the lays of Helge Hundingsbane describe persons and events from Östergötland and Södermanland during the seventh century. Certainly it must be admitted that *most* of his arguments are unsatisfactory, but what remains is nevertheless conclusive. Nor do I find it unreasonable to suppose that he may have been right in his conjecture that the Helge lays were composed in Östergötland, though later transferred to West-Scandinavia and in the course of time garbled and modernized. It is more doubtful whether they were composed earlier than 700. Certain facts point to their not having been composed immediately after the events related. It seems to me, however, that they must have been composed before the Viking age (see below). Hederström died in 1915, that is before the discovery of the Eggjum stone, and his conjecture concerning the date of composition of the Helge lays seemed at the time of his death, for philological reasons, hardly acceptable. But no objection can now be raised on that account. The Eggjum stone shows that already in the second part of

¹In his work *Saga och sägen i Bråbygdén*, Norrköping, 1922, Arthur Nordén has expressed the same opinion concerning the origin of Helge Hundingsbane.

the seventh century the Primitive Scandinavian language had changed into Old West-Scandinavian, consequently in Sweden to Old Swedish. Therefore there is nothing that militates against the view that a Swedish poem, with a fixed number of syllables, composed in the seventh century and in the following periods transplanted to West-Scandinavian soil, may have gradually obtained the linguistic form of the Helge lays without spoiling the metrical structure.

Lastly, in recent years archæological arguments have been used in support of the opinion that the year 800 cannot be regarded as the further limit for the composition of the Eddic poems. In 1903 Knut Stjerna, in his essay *Hjälmar och svärd i Beowulf*,¹ called attention to the expression in strophe 9 of *Helgakviða Hjorvarzsonar hringr er i hialti* as referring to the so-called ring-swords of the sixth and seventh century (the expression will later be discussed in detail). From this Stjerna, however, merely concluded that the lay of Helge Hjorvardsson in certain parts reflects conditions of the time about 600. At the congress of Scandinavian Archæologists in Copenhagen, 1919, Montelius called attention to this observation of Stjerna and further pointed out that in strophe 68 of *Sigurðarkviða in skamma* a ring-sword is referred to in the expression *málmr hringvariðr*.² Montelius' conclusions were much bolder than Stjerna's. He declared the Eddic poems in question, and possibly some others, to have been "in all probability composed in the sixth century." We shall endeavour to decide below whether these conclusions can be considered satisfactorily proved.

If there was for a long time a consensus of opinion

¹ In *Studier tillägnade Oscar Montelius 9/9/1903*, Stockholm. pp. 114 ff; compare *Essays on Beowulf* (Viking Club Extra series, vol. III., London, 1912), pp. 25 ff.

² A report of Montelius' lecture is published in *Aarbøger for Nordisk Oldkyndighed og Historie*, 1920, pp. 40 ff.

that the extant Eddic poems were not older than about 800, several scholars went still further and expressed the opinion that most of the legends treated in the Eddic poems must have been unknown in Scandinavia before about 800. Sophus Bugge especially, who considered most of the Eddic poems to have been composed by Norwegians in the British Isles, in his above-mentioned works declared that most of the Eddic tales, mythological as well as heroic, were not transferred from the British Isles to Scandinavia till the Viking age. To Britain the tales had come by different ways, particularly from Classical, Christian mediæval and Continental Teutonic literature, or else they had arisen among the Vikings in Britain as imitations or under the influence of similar tales. Here Bugge's opinion concerning the heroic legends of the Edda should be especially mentioned. As we know, the heroic songs can be divided into three groups: the song of Volund, the three lays of Helge Hjorvardsson and Helge Hundingsbane, and the great cycle of songs on subjects derived from the Sigurd saga. The sagas of Volund and Sigurd originated among the Continental Teutons several centuries before 800, but Bugge supposed they were quite unknown in Scandinavia before the Viking age, and that they reached Scandinavia via the British Isles at that time.¹ According to Bugge, the Helge legends must have been in the main developed by Scandinavians in the British Isles, though out of originally Danish and Norwegian traditions. These opinions have won considerable recognition, but have not been left unopposed. Finnur Jónsson,² in particular, has in several treatises, based on philological and historical grounds, strongly and successfully opposed

¹ Compare also Schück, H., *Sigurdsristningar*, in *Studier i Nordisk litteratur- och religionshistoria*, vol. I., Stockholm, 1904.

² Jónsson discussed these questions recently in his work *Norsk-islandske Kultur- og Sprog-forhold i 9. og 10. Årh.* (= *Det. Kgl. Danske Videnskabernes Selskab. Historisk-filologiske Meddelelser*, III. 2), Copenhagen, 1921.

Bugge. Thus he has pointed out that the Volund and Sigurd sagas must have come to Scandinavia long before the Viking age, directly from the Continent. In my dissertation *Studier över Svärges hedna litteratur* (Uppsala, 1913) I have tried to prove the same concerning the Sigurd saga for philological and to some extent archæological reasons. And recently, in my essay *Eddans sägen om smeden Volund arkeologiskt daterad*,¹ I have endeavoured to prove on archæological grounds that the legend of Volund must have been known in Scandinavia before about 700. Further, as already mentioned, Hederström, in his above quoted work, has proved that the lays of Helge Hundingsbane reflect and on the whole render with historical truth events which happened in Östergötland and Södermanland during the seventh century.

Finally, as to the question how far the legends of the Eddic poems had spread in Scandinavia, nobody has, so far as I am aware, considered them to have been known in general only within a limited part of Scandinavia. The most remarkable heroic tale of the Eddic poems, the Sigurd saga, is testified by reliable evidence to have been known in different parts of Scandinavia. Besides its appearance in Old West-Scandinavian literature and in ballads from the different countries of Scandinavia, the saga is illustrated, for example, in early mediæval wooden carvings from Norway and on sculptured stones of the Viking age from Sweden.² Further, a Gotlandic sculptured stone probably represents scenes from the Volund saga.² Also certain mythological motifs from the Edda can be shown to have been known on East-Scandinavian soil. But, certainly, as has been asserted, there are indications that several Eddic traditions varied in details in the different parts of Scandinavia, whilst some of them may have been restricted to certain parts of the North.

¹ In *En Bergsbok tillägnad Carl Sahlin 15/12/1921*, Stockholm, pp. 153ff.

² See Schück, *op. cit.*

III.

GOLD AND SILVER IN SCANDINAVIA
DURING THE IRON AGE.

THE question to what extent the Éddic poems mention objects in gold and silver and what kinds of objects are referred to, in both these metals, plays a prominent part in the following exposition. It will therefore be appropriate to give an account of the frequency of gold and silver in Scandinavia during the times to which the Éddic poems may be assigned.

Speaking firstly of gold, there was already in the Bronze age a considerable abundance of gold wares in Scandinavia. This period, however, is too far back for us to concern ourselves with its gold objects. At the end of the Bronze age, with the setting in of Montelius' sixth period (about 750-600 B.C.), the gold finds cease altogether and reappear only towards the birth of Christ. Until about the year 100 A.D. they are very sporadic. During the second century A.D. the gold finds are more frequent, though still quite rare. They consist chiefly of small objects, such as charms, beads and finger-rings. During the period 200-400 the objects of gold increase considerably in number; they are at that time rather frequent. Armlets and finger-rings are common; Fig. 1 represents an armlet, Fig. 2 and 41 finger-rings. Some gold neck-rings are also known from that time; one is represented in Fig. 3. Moreover, other kinds of objects wrought in gold are sometimes met with. It may be added that, whilst in the three preceding centuries only single Roman gold coins were imported into Scandinavia, during the fourth century those coins began to be brought in a larger quantity to the North. On the whole about a hundred

gold coins, so-called *solidi*, exist from this time, and some Scandinavian imitations. The bulk of these *solidi* are found in Denmark west of Öresund.

About 400 A.D. the abundance of gold is greatly increased. At this time sets in the period which beyond all comparison was richest in gold of the ancient times in Scandinavia and continues till about the year 550, or maybe somewhat later. In Scandinavia at this time there was such an abundance of gold objects, that this period has been called "the Gold age of Scandinavia." It is principally in the southern parts, Denmark and still more Götaland, that the gold finds accumulate, though likewise Southern Norway and South-eastern Svealand are tolerably rich.¹ This gold as well as that which appeared earlier was brought to Scandinavia through the contact of the Northern peoples with the Teutons on the Continent. To them the gold had come principally through their contact with the Romans. As early as during the third and fourth century the Teutons apparently seized the greater part of the gold in war. That during the fifth and the first half of the sixth century the gold reached its greatest abundance both among the Scandinavian and the Continental Teutons, is at any rate due to the fact that during this time the Teutons conquered the Roman empire and were at the height of their power. In Scandinavia the imported gold, minted or not, was at this time as well as earlier partially melted and remodelled into ornaments.

Not only is the number of gold objects more considerable in Scandinavia at this time than at any other time of antiquity, but also the number of different kinds of such objects has increased. We find now as earlier Roman

The Danish gold finds are recorded by C. Neergaard, *Guldfundene fra den efterromerske Jernalder*, in *Aarbøger*, 1915, pp. 173 ff; the Swedish by Olov Janse, *Le travail de l'or en Suède à l'époque mérovingienne*, Orléans 1922; the Norwegian by J. Bøe, *Norske guldfund fra folkevandringstiden* (=Bergens Museums Aarbok, 1920-21, *Hist. Antikv. række*, No. 2).

coins, solidi.¹ The number of coins is now, however, considerably larger, amounting to nearly 500. These coins were minted for Roman emperors during the period from about the year 400 till well on into the sixth century, but the chief time of importation was from the middle of the fifth century till towards the middle of the sixth century. The bulk of the coins have been found in the Baltic islands Öland, Bornholm and Gotland. Fig. 4 represents a solidus, stamped for the Eastern emperor Leo I. (457-474), found at Jordslunda, parish of Alunda, Uppland. Further gold pendants, stamped only on one side, bracteates,² are rather frequent; they were made in Scandinavia, though the most original types imitate Roman coins or medals or imitations of such. 547 gold-bracteates from the time of 400-550 were found in all in Scandinavia up to 1919, of which 241 were in Denmark, 166 in Sweden, and 140 in Norway. Most of them seem to have been stamped between 450-550. Fig. 5 represents a bracteate. Among other gold objects the foremost place is occupied by the rings. These are on one hand trinkets, on the other hand monetary rings. As for trinkets, necklets as well as armlets and finger-rings are met with. The necklets are now more common than at any other period; Fig 6, 7 represent two types. The armlets, on the contrary, are more rare than during the period 200-400 A.D.; in Fig 8 a specimen is shown. Lastly, finger-rings, like neck-rings, are more frequent now than in any other part of the prehistoric times; a specimen is shown in Fig. 9. The so-called monetary rings consist of golden bars, twisted in spirals of varying numbers

¹ Besides recently quoted works, the reader is referred to Janse, O., *Notes sur les solidi romains et byzantins trouvés en Scandinavie*, in *Revue numismatique*, 1922, pp. 33 ff.

² A summary of the Scandinavian gold-bracteates from 400-550 is to be found in Janse, O., *Den geografiska fördelningen av folkvandringstidens skandinaviska guldbrakteater*, in *Studier tillägnade Oscar Almgren*, 9/11/1919 (or in *Rig*, 1919), pp. 81 ff. Cf. Janse's subsequent treatise, just quoted.

and diameter. As is indicated by their name they were used as money. Payment was fixed according to the weight in gold and was as occasion demanded settled by cutting off pieces of the rings. In Fig. 10, 11 monetary rings are seen. The figures show that groups of such rings might at times be made up into chains, and that occasionally the rings might be threaded on a larger ring. As payment bars and billots, Fig. 10, were also used. Among other gold objects may be mentioned fittings of swords: for instance, pommels and cross-guards, mountings of hilt and scabbard. In Fig. 12 we see a pommel, in Fig. 43 a pommel and a half of an upper cross-guard. Fig. 13 and 14 represent mountings of hilt and scabbard. Besides beads, other pendants, buttons, etc., in gold are also occasionally met with.

About the year 550, or perhaps somewhat later, the number of gold objects suddenly diminishes considerably. During the whole period about 550-800 gold objects are quite rare in Scandinavia, much rarer not only than during the preceding period but also than during the years 200-400 A.D. The reason why the abundance of gold objects diminished to such a degree must be that the import of gold to Scandinavia ceased, owing to some changes which took place among the Teutons on the Continent—what changes it is, however, difficult to decide. Of gold objects from the period 550-800 I am mainly aware of some bracteates from Gotland. During the first half of the same period gold fittings of swords still existed. If, however, gold objects are rare during the period 550-800, gilded objects are so much the more common. Such objects also existed earlier, since about the birth of Christ. They now, however, became more common than ever before and even than later on during the prehistoric age.

With the Viking age (800-1050) gold objects increase in number, though this is still not very large compared to the wealth of the period 400-550 and is also less than

that of the years 200-400 A.D. During the Viking age it is chiefly armlets and in rather small numbers finger-rings that are wrought in gold. Fig. 15, 16 show some rings of the former, Fig. 17 one of the latter kind. Gold neck-rings are during the same period very scarce in Scandinavia. I cannot recollect more than a few specimens, one of which is reproduced in Fig. 18. Gold bracteates, similar to those of the preceding period, probably still exist during the first part of the Viking age. Gilded objects are quite common during the Viking age.

If we now proceed to study the occurrence of silver objects in Scandinavia, we find, to begin with, that silver objects do not appear in Scandinavia before about the birth of Christ. During the whole period from the birth of Christ to the Viking age silver, however, plays a comparatively unimportant part. Different kinds of objects, necklets, armlets and finger-rings, brooches, beads, fittings of swords, and so on, made in silver, are certainly sometimes to be found, but there is no abundance in home-made silver objects in any part of the period. On the other hand, Roman silver coins, denarii, accumulate at a definite period. About 7,000 specimens of such coins have been found in Scandinavia of which more than 5,000 belong to Gotland and the rest chiefly to the South of Scandinavia. The bulk of these coins were minted in the second century A.D. and were brought into Scandinavia during the last quarter of this century. It is remarkable that, as far as I am aware, silver neck-rings and arm-rings are not to be found in Scandinavia in the period 400-800 A.D.

At the commencement of the Viking age a complete change sets in. Now comes a great abundance of silver finds. The silver is much more frequent during the Viking age than the gold during the epoch 400-550. The Viking age might thus with good reasons be named "the Silver age of Scandinavia." To begin with it

should be mentioned that during this period heaps of oriental and occidental silver coins were brought into Scandinavia. The number of coins found in Scandinavia cannot be reckoned. In Sweden alone—where however, the coins are more numerous than in any other part of Scandinavia—they doubtless exceed 100,000 pieces. The bulk of the Swedish coins are found in Gotland. Fig. 19-21 represent an Arabic, a German and an Anglo-Saxon coin. In addition to coins, rings are especially numerous. This applies to necklets as well as to armlets and finger-rings. Fig. 22, 23 represent some necklets, Fig. 24, 25 some armlets, and Fig. 26 a finger-ring. Common are also monetary rings, twined in spirals—Fig. 27—as well as bars and billots—Fig. 28. So are also beads and other kinds of pendants, Fig. 29. Further chains; see Fig. 30. Other objects to be mentioned are round brooches, Fig. 30, and penannular brooches.

IV.

THE EDDIC POEMS, SEVERALLY.¹

Völuspá.

8. teffdo í túni.

The gods were playing backgammon.

Cf. 61. Þar muno eptir
undrsamligar
gullnar tǫflor
í grasi finnaz.

When, after Ragnarök, a new earth arises, the gods find the backgammon men which they possessed in primeval times. It is stated here that they are of gold or gilded.

Backgammon among the Teutons is a loan from classical culture. To judge from the finds, it was introduced about the birth of Christ, when the Teutons came into close contact with classical civilisation. In Scandinavia² there are one or more examples of backgammon having been heard of as far back as the first two centuries of our era, though it was not till the third century that backgammon came to be generally known in Scandinavia. Since that time it was of common occurrence there during all the periods of the Iron age.

Backgammon consisted of the actual board, Old West-Scandinavian *tafl* n., the men, Old West-Scandinavian *tafl* n. or *tafla* f., and dice. It is chiefly the men and the dice that occur in the finds. The men are of different materials: glass, stone, clay, amber, but usually bone. The shape may vary, but as a general rule

¹ I quote below from G. Neckel's edition of the Edda, I. Text (=Germanische Bibliothek, edited by W. Streitberg, section II., vol. 9), Heidelberg, 1914.

² Petersen, Jan, Bretspillet i Norge i forhistorisk tid, in Oldtiden, 1914, pp. 75 ff.

it is more or less semi-spherical. When made of glass, the men are of different colours; presumably each set, as a general rule, had men in two colours, the same number of each kind. This was probably the case also with men of other materials. The bone men were presumably coloured, half in one colour, half in another,¹ or half uncoloured. But naturally other methods also were employed for distinguishing the two groups, for example by ornamenting the men of one group with a circle concentric with the periphery. Figs. 31-33 show a few types. The dice are of bone; a couple of specimens are seen in Figs. 34, 35. The actual boards have been preserved only in exceptional cases. Personally, I know backgammon boards only from two Scandinavian finds. One is the big find dating from the period about 250 A.D. from Vimose² in the island of Funen, in which parts of four backgammon boards were discovered. Fig. 36 shows a fragment of a board. The other find is the famous Gokstad ship³ from Vestfold in Norway, which originated in the middle of the ninth century, and without doubt served as the grave of Olov Geirstadaalv, of the Norwegian Ynglingar family; in this ship part of a backgammon board was found. The boards preserved are of wood, and this was obviously the general rule. The perishableness of this material is undoubtedly one of the chief reasons why so few backgammon boards have been preserved down to our times.

Although no examples have as yet been found, it is conceivable that gilded backgammon men, or actually of gold, may have occurred in Scandinavia, and that it is the knowledge of this fact that induced the author

¹ A find of 24 backgammon men of bone, half coloured red, half white, is reported from Iceland. Cf. Petersen, p. 89.

² Engelhardt, C., *Vimosefundet* (Fynske Mosefund No. II.), Copenhagen, 1869, pp. 11 f., Pl. 3, Figs. 9-11.

Nicolaysen, N., *Langskibet fra Gokstad*, Christiania, 1882, p. 46, Pl. VIII., Fig. 1.

to equip the gods with golden backgammon men. But, even without a counterpart in real life, it was natural for the poet to provide the gods with men in the most noble metal.

8. Vas þeim vettergis
vant ór gulli.
36. Á fellr austan
um eitrdala
sǫxom ok sverðom :
Slíðr heitir sú.

Sax, n., in ancient Scandinavian literature seems to designate (1) a one-edged sword, (2) a short sword, without reference to one or two edges.¹ Most commonly it is used in the sense of short sword.

One-edged and double-edged swords occur in Scandinavia side by side during considerable parts of the entire first thousand years of our era. Also short swords occur beside long swords during considerable parts of that period.

37. Stóð fyr norðan,
á Niðavøllom,
salr ór gulli
Sindra ættar,
61. Þar muno eptir
undrsamligar
gullnar tǫflor
í grasi finnaz.

Cf. p. 18.

64. Sal sér hon standa
sólo fegra,
gulli þakþan,
á Gimléi.

Hávamál.

105. Gunnloð mér um gaf
gullnom stóli á
drykk ins dýra miaðar.

Vafþrúðnismál.

With regard to this poem there is nothing to be said from an archæological point of view.

¹Falk, H., *Altnordische Waffenkunde* (= *Det norske Videnskaps-selskaps Skrifter*. II. Hist.—Filos. Klasse, 1914, No. 6), p. 9.

Grimnismál

6. Bœr er sá inn þriði,
er blið regin
silfri þokþo sali.
7. Þar (*i.e.*, in *Søkkvabekkr*) þau Óðinn ok Sága
drekka um alla daga,
gløð ór gullnom kerom.

Vessels of gold exist from the Bronze age, but are entirely lacking among the finds from the Scandinavian Iron age. As is explained below, on pp. 29*f.*, we have silver vessels, some of which are partially gilded, from the period about the birth of Christ to about 400 A.D., and from the Viking period. But it was, of course, natural to imagine the gods drinking from golden vessels.

8. Glæsheimr er inn fimti,
þars en gullbiarta
Valhöll víð of þrumir.
15. Glitnir er inn tíundi,
hann er gulli studdr
ok silfri þakþr it sama.

Grimnismál thus mentions gold three times, silver twice. In the poem silver is regarded as a material practically on a par with gold, and so noble that the very dwellings of the gods are conceived to have been roofed with it. It is of great interest that in one poem at any rate this high estimate of silver can be definitely established. This indicates that in the poems where only gold is mentioned or where silver occurs much more sparsely than gold, it is not a sufficient explanation to say that silver was considered not to be noble enough to be used for poetical purposes. In some poems this may be the case (cf. *Guðrúnarkviða II.*), but, generally speaking, this explanation does not hold good. Cf. below the occurrence of silver in *Þrymskviða* and *Atlamál in grœnlenzko*.

För Skírnis.

19. Epli ellifo
hér hefi ek, algullin.
22. Baug ek þikkak,
þótt brendr séi,
með ungom Óðins syni ;
era mér gullz vant
í ggrðom Gýmis.

This passage shows that the ring which was offered by Skirner to Gerd, and had been burnt on Balder's funeral pyre, was of gold. In the Snorra-Edda it is in fact directly stated that Balder's ring, Draupnir, was of gold.

37. Heill verðu nú heldr, sveinn,
ok tak við hrímkálki !

Hrímkálkr occurs only here and in one place in Lokasenna. The first part is *hrím* n., 'hoar-frost,' but there has been some doubt as to the meaning of the compound. Fritzner¹ translates 'foaming goblet, a goblet the contents of which is covered with foam like hoar-frost.' Detter and Heinzel² say 'ein metallenes oder gläsernes. . . Trinkgefäß, das durch die Kälte des Getränkes angelaufen ist.' But, as Finnur Jónsson³ rightly points out, it must after all be the actual substance of the goblet that accounts for the name *hrímkálkr*. He therefore interprets the word as a glass goblet, which owing to the nature of the glass is called 'frost goblet.'⁴

Thus *hrímkálkr* means a glass vessel the substance of which gives the impression of hoar-frost. The word

¹Ordbog over det gamle norske Sprog: 2nd edition, Christiania, 1886-96.

²Sæmundar Edda, II., Leipzig, 1903, p. 208.

³S. Egilsson's Lexicon Poëticum, 2nd edition by F. Jónsson, Copenhagen, 1913-16.

⁴Bugge, who (Studier, I., p. 4 ; The Home of the Eddic Poems, p. XX.) rightly points out the identity between Old West-Scandinavian *kálkr* and the Latin *calix*, but who believes that this word was borrowed by the Vikings in England via Anglo-Saxon *calic*, *calc*—in this date he is too late and his opinion is also in other respects unconvincing—sees in *hrímkálkr* "a wrong translation of the late Latin *calix crystallinus*, as *crystallus* may denote ice in late Latin."

accordingly refers to an uncoloured or merely faintly coloured glass vessel of a dull opaque tone.

In Scandinavia glass vessels do not occur till about the birth of Christ, and after that time exist there during all the following periods.¹ All glass was introduced from more southerly districts. The glasses are often coloured, and the colouring varies. But very often the glass is uncoloured. The glass is usually transparent. But a small group of uncoloured or faintly coloured glasses was acquired by grinding a dull, opaque surface, which quite gives the impression of hoar-frost, or else some of the facets are ground to dulness. Fig. 37 is a reproduction of a vessel with closely placed ovals found in a graveyard at Sojvide, parish of Sjonhem, Gotland.² The entire vessel, which is quite uncoloured, has been given a frosty appearance by grinding the surface (unfortunately not visible in the Fig.). The vessel is from the second century A.D. In Fig. 38 we see a glass from Vallstenarum, parish of Vallstena, Gotland, which is faintly coloured greenish-yellow, and is provided with ovals and circles at some distance apart.³ The vessel is ground to a dull polish over the entire surface, and, apart from the faint tone, gives throughout the impression of hoar-frost (not visible in the Fig.). It was found in a grave belonging to the period about 300, or the beginning of the fourth century. I know from Lilla Gerum in the parish of Tanum, Bohuslän, a fragment of an uncoloured glass vessel with recessed ornaments, including pointed ovals (Statens Historiska Museum, Stockholm; No. 1270 : 509). The ornaments are ground to a dull polish, whilst the glass otherwise is bright. The fragment is stated to have been found together with "a gold ring" and burnt bones in a sepulchral

¹ Almgren, O., *Die Funde antiker Gläser in Skandinavien*, in *Kisa, Das Glas im Altertume*, Leipzig, 1908.

² Almgren, O. and Nerman B., *Die ältere Eisenzeit Gotlands, I.-II.*, Stockholm, 1914, 1923, p. 42, Fig. 277.

³ Almgren-Nerman, *op. cit.*, p. 81, Fig. 452.

mound. Further, we have from an ancient castle, Gullborg in the parish of Tingstad, Östergötland, fragments of a vessel with similar ornaments, but where the raised parts are deadened. From the same castle we have the neck of a bottle of ground glass. The castle of Gullborg is shown by the finds to belong to the period about 400, or the fifth century.¹ Glass vessels as in Fig. 38, with ovals and circles wider apart than that in Fig. 37, occur also in Denmark and Norway. I am unable to say how many of them are uncoloured or faintly coloured and entirely or partially deadened. As regards Norway, however, I cannot recall any vessel with a frosty surface or parts. On the other hand, I know from the National Museum in Copenhagen at least two such Danish vessels, one greenish with ground ovals from Strøby, near Varpelev, not far from Storeheddinge, Zealand (No. C. 646) and one uncoloured and entirely deadened, with round and oval facets, from Skjørringen near Storeheddinge (No. 18365), found in a grave together with objects from the fourth century. The group of glasses in question belongs to the fourth century, and extends also into the fifth century, but there is some uncertainty as to how far down. From the part of the prehistoric period later than the fifth century, or about 550, I do not know of any glass vessels with a frosty appearance. From the Swedish city of Birka, which flourished during the ninth and tenth centuries, we know various uncoloured glasses, all of which, however, are transparent.

Mr. E. Sörling, Laborator to the Statens Historiska Museum, Stockholm, has kindly informed me that all the dully polished glass vessels are moulded. It is in the dull polishing of such vessels that the frosty appearance is produced. The bulk of the vessels found in Scandinavia from the period from the birth of Christ

¹ Schnittger, B., *Die vorgeschichtlichen Burgwälle in Schweden*, in *Opuscula archæologica Oscari Montelio septuagenario dicata*, Stockholm, 1913, p. 340. The neck of the bottle is reproduced on p. 342, Fig. 19.

to 550 appear to be moulded, but some have been made by blowing. Vessels of later date, on the other hand, appear, at least as a general rule, to have been made by blowing; from Sweden, at any rate, no moulded vessel is known.

Thus, to judge by the existing finds, *hrímkálkar* would seem to have ceased to occur in Scandinavia long before the Viking period.

Hárbarzlióð.

30. gladdak ina gullbierto.

The manuscript A has gollhvíto.

Hýmiskviða.

8. eu ǫnnor gekk,
algullin, fram.

Lokasenna.

42. Gulli keypta
létstu Gýmis dóttur.

53. Heill vær þú nú, Loki,
ok tak við hrímkálki.

Lokasenna is considered to have been based to a large extent on reminiscences from other Eddic poems. The passage quoted here refers to *För Skírnis* strophe 37. It is evident then that the above cited words in strophe 42 are also based on *För Skírnis* strophes 21, 22.

Þrymskviða.

4. Þó mynda ek gefa þér,
þótt ór gulli væri,
ok þó selia,
at væri ór silfri.

6. Þrymr sat á haugi,
þursa dróttinn,
greviom sínom
gullbǫnd snøri.

Thus Thrym's dogs are represented as having collars made of twisted gold threads or gold bands. This statement is of great archæological interest.

Previous to the Viking age I do not know of any example of objects made by twisting gold threads or gold bands, nor silver threads or silver bands. Out of the very large number of gold rings of different kinds and types that have been found in Scandinavia from the period 200-800 A.D., there is, so far as I am aware, not a single one that is twisted. During the Viking age, on the other hand, twisted rings were the commonest type of gold rings; see Figs. 15, 17, 18. More than half of the gold armlets, and a good many of the gold finger-rings would seem to have been twisted, and the gold neck-ring to which I have just referred is twisted. And in silver we have twisted necklets and armlets in enormous numbers; Fig. 22, 24.

It seems to me manifest that the passage about the gold collars of the dogs was written under the impression of this technique of twisting rings which was so common during the Viking age and which the author had also seen executed in gold, and thus that this passage originated during the Viking period. It might be mentioned here that we know from the Viking age an example of a dog-collar in precious metal, not gold, but silver, not exactly twisted, but plaited. In a grave from the grave-field at Broa in the parish of Halla, Gotland, the late Mr. Hans Hansson found the skull of a dog and under it parts of a silver collar artistically plaited of fine silver threads (Statens Historiska Museum, Stockholm, No. 11,106 :2).

13. stókk þat it mikla
men Brisinga.

The Brisingamen is mentioned also in strophes 15 and 19. Nowhere, however, are any details given as to its appearance.

23. gullhyrnðar kýr.

29. Láttu þér af hǫndom
hringa rauða.

The reference here seems to be to armlets rather than to finger-rings. Now it should be noted that gold-work during the Viking age consists principally of armlets. During "the Gold age" 400-550, on the other hand, neck-rings, finger-rings and monetary rings were much more numerous than armlets, which have been found only in small numbers. In fact a larger number of gold armlets are known from the Viking age than from the "Gold age." On the other hand, during the period 200-400 A.D., armlets together with finger-rings are the commonest kind of gold rings, certainly, at least, as numerous as the gold armlets of the Viking period. There is no reason to think that *hǫndom* is necessary here simply because the word alliterates with *hringa*, for *hals*, of course, also alliterates with *hringr*.

32. hon skell um hlaut
fyr skillinga,
en hogg hamars
fyr hringa uqld.

Old West-Scandinavian *skillingr* m. has counterparts in other Scandinavian languages and in the entire Germanic family of languages. It occurs as far back as the sixth century in the Gothic word *skilligs* m. In Gothic, *skilligs* corresponds in value during the sixth century to the Latin *solidus*. Subsequently the value of a skilling varies in different parts of the Germanic world and at different periods. Thus the actual word *skillingr* in *Þrymskviða* gives little or no indication as to the kind of coin. It is in fact conceivable that *skillingr* in *Þrymskviða* merely means money in general.

As we have seen in Chapter III., no coins were introduced into Scandinavia during the period from about 550 to about 800. The verse in question in which *skillinga* occurs must thus have been written either during the Viking age or before about 550. We have, however, seen that during the early epoch of migrations

coins circulated only within a rather limited area: they occurred chiefly in Gotland, Öland and Bornholm and otherwise in the most southerly and easterly parts of Sweden and in Denmark. Norway was practically aloof from this stream of solidi; from that country we know only one solidus. The stream of solidi in the fourth century, as we have seen, chiefly went into Denmark west of the Sound: from Norway we have only 9 solidi from that period. Should the *skillinga* of the Þrymskviða refer to solidi, it is thus improbable that the word was written in Norway or in Western Sweden. On the other hand, there is no reason to suppose that this poem was of East Scandinavian origin. Hence there is great probability that the *skillinga* of the poem refers to the coins of the Viking age. The designation was presumably applied to certain kinds of Western coins.

Already here it should be pointed out that the archæological study of Þrymskviða evidently points to the Viking age. The poem mentions silver once. Gold is mentioned four times. Of the latter, the passage in strophe 6 about Thrym's dogs points decidedly to the Viking period. Further, the references to armlets in strophe 29 fit in quite as well with the Viking period as the period 400-550. The two other passages do not require special mention. Finally the reference to *skillinga* in strophe 32 would seem to point to the Viking age.

Alvíssmál.

This poem calls for no comment from an archæological point of view.

Baldrs draumar.

6. hveim ero bekkir
baugom sánir,
flet fagrliga
flóoð gulli?

The benches are thus conceived to be strewn with gold rings.

Rígsþula.

16. dvergar á ǫxlom.

Dvergar m. here obviously means brooches (*fibulæ*). These were used in different periods of the Bronze and Iron ages by women—but occasionally also by men—for fastening their dress. The dress was often fastened upon the shoulders. Thus one often finds a brooch on each shoulder. As a general rule, the brooches are of the same type. Cf. Fig. 30.

32. Fram setti hon
skutla fulla,
silfri varða,
· · · ·
· · · ·
· · · ·
vín var í kǫnno,
varðir kálkar.

Skutill m. 'plate, dish.' Here it is thus directly stated that the vessels of this kind put on the table by *Móðir* are silvered. With regard to the drinking-vessels, *kálkar*, it is merely said that they are *varðir*, 'coated,' which obviously also refers to silvering.

I do not know of any silver-coated vessels from the Scandinavian Iron age; but I do know vessels of silver from that age. The latter occur only during certain parts of that period.

Various vessels of silver, or occasionally of other material, silver-plated, belonging to the period from about the birth of Christ to 400 A.D., have been found in Scandinavia, chiefly in Denmark. In some cases the vessels were partly gilt. Some of them were imported, others were made in Scandinavia.¹

From the period about 300, or the fourth century, silver vessels cease for a long time to occur in the

¹ See e.g. Müller, S., *Det store Sølvkar fra Gundestrup i Jylland*, in *Nordiske Fortidsminder*, I., pp. 35 ff.; Worsaae, J.J.A., in *Annaler for nordisk Oldkyndighed*, 1849, pp. 396 f., Plate VI., Fig. 1; Engelhardt, C., *Valløbyfundet*, in *Aarbøger*, 1873, pp. 291 ff., Fig. 2.

Scandinavian material. I do not know of a single silver vessel from Scandinavia during the entire period 400-800 A.D.

With the Viking age silver vessels reoccur in Scandinavia. From this period we have a rather large number of such vessels, most of which seem to be imported or to be imitations of imported vessels. The silver vessels occur chiefly in Denmark and Sweden. I cannot recall any specimen from Norway (and Iceland), but I am not sufficiently well acquainted with the material from those parts. Fig. 39 reproduces the goblet from one of the famous Jellinge mounds in Jutland, the burial-places of King Gorm and Queen Tyre, from the middle of the tenth century. It is partly gilded, and is shown by its ornamentation to be of Scandinavian make. Several other specimens from Denmark could be mentioned.¹ Silver vessels from Sweden have hitherto been found only from the end of the Viking period, the eleventh century. Fig. 40 is a reproduction of a bowl from Lilla Valla, in the parish of Rute, Gotland. It has a gilt border and bottom. As the ornamentation indicates, this bowl is of Scandinavian make, though in shape it is an imitation of Austrian vessels.

Of course, it is possible that a stray silver vessel may be discovered in Scandinavia even from the epoch of migrations. The existing finds, however, have already made it clear that silver vessels occurred in Scandinavia chiefly during the periods before and after that epoch.

It seems to me most reasonable that the passage in *Rígsþula* concerning silvered vessels has been written either during the period from the birth of Christ to 400 A.D. or during the Viking age. On this presumption it is evident that the passage must have originated during the Viking age.

¹ E.g. Müller, *Ordning av Danmarks Oldsager*, II., Copenhagen, 1883-95, Figs. 670-672.

38. hringom hreytti,
hió sundr baug.

As we have seen, ring gold played a great part during the early epoch of migrations, and ring silver a still greater part during the Viking age. In many places in ancient Scandinavian literature we come across the idea that it is the duty of a prince or other distinguished person to distribute rings liberally. The rings distributed were either ornamental rings or monetary rings. The latter, as we have seen, could be cut into pieces of a certain weight. This is the explanation of the phrase *hió sundr baug*.

41. sund ok tafl.

With regard to *tafl* see above, p. 18.

Hyndlolióð.

2. hann geldr ok gefr
gull verðungo.

Cf. Helgakviða Hundingsbana I., 9

7. þar er goltr glóar,
gullinbursti.

9. Vála málm.

Grógaldr.

From an archæological point of view, there is nothing to be said about this poem.

Fiqlsvinnsmál.

5. garðar glóa
mér þikkia of gullna sali.

23. hvat sá hani heitir,
er sitr í inom háva viði,
allr hann við gull glóar?

28. eiri aurglasis

“the water glance” = gold.

*Volundarkviða.*¹

5. Hann sló gull rautt
við gim fástan.

This passage has been badly misunderstood.

The manuscript has *gimfástan*. From a purely formal point of view, it is possible to interpret both parts of the compound in two ways. The first part may be a *gimr* m. 'precious stone,' which we find in Anglo-Saxon *gimm* m., and is authenticated in Old West-Scandinavian in the compounds *gimsteinn* m., *gimsteinamaðr* m., *gimsteinaðr* adj. The word is of course connected with lat. *gemma* 'precious stone.' But the first part may also be Old West-Scandinavian *gim* n. 'fire.' The second part may be connected with Old West-Scandinavian *fastr* adj. 'fast, violent.' But it may also be a form of an Old West-Scandinavian adjective *fár* 'glittering (in many colours),' which is moreover known in compounds, e.g. *blá-fár*, and outside Scandinavia in e.g. Gothic *filu-faihs*, Old High German *fêh*, Anglo-Saxon *fáh*, *fág*.

The philologists have in fact proposed different interpretations. I shall begin with those who assume that *gim* is Old West-Scandinavian *gim* n. 'fire.'

Some scholars² believe that it is a single word *gimfastan*, meaning 'fire-proof' and designating the anvil. But apart from the pointlessness of the sentence "he struck the red gold against the anvil," this interpretation is impossible for the reason that the poem is otherwise completely devoid of periphrasis.

The prevalent view, however, is to regard *fastan* as an adverb in the sense of 'eagerly, incessantly,' in which case the translation would be : "he eagerly (incessantly) struck the red gold at the fire." This

¹ Nerman, B., Eddans sägen om smeden Volund arkeologiskt daterad, in *En Bergsbok tillägnad Carl Sahlin 15/12/21*, Stockholm, pp. 157 ff.

² E.g. Egilsson, S., *Lexicon Poëticum*, Copenhagen, 1860.

interpretation is represented *e.g.* by Bugge¹ (who, however, subsequently abandoned it) and Finnur Jónsson.² Even from a linguistic point of view it seems to be somewhat dubious—can *fastan* have such an adverbial sense?—but, quite apart from this, the interpretation falls to the ground for reasons of fact. Gold *can* be cold-hammered under all conditions. But gold *must* be cold-hammered if it is not quite pure; only pure gold can be hot-hammered. Now old Scandinavian gold was practically never quite pure; often it did not contain more than eighty per cent. of fine gold. Scandinavian gold therefore had always, or practically always, to be cold-hammered.

It is thus evident that *gim* here cannot mean ‘fire,’ but must be the accusative of *gimr* m. ‘precious stone.’

This is the principal point for the purpose of this study. Whether *fastan* then is to be interpreted as an adverb, meaning ‘eagerly, incessantly’ (if such an interpretation is possible), or as the accusative superlative of an adjective *fár* ‘glittering (in many colours),’ is of minor importance. The latter interpretation, however, seems to me decidedly the more expressive; in this way there is a parallelism in the phrases “the red gold” and “the glittering precious stone.” Bugge³ in fact, with true instinct, has interpreted the passage thus: “he struck the red gold against the glittering precious stone.”

An archæologist can have no doubt as to the correctness of this interpretation. He recognizes in the phrase a familiar technical process: the setting of precious stones in gold-latten.

This process is a branch of the technique of enchas-

¹ Bugge, S., *Sæmundar Edda*, Christiania, 1867.

² In the second edition of Egilsson's *Lexicon Poëticum*, Copenhagen, 1913-1916.

³ Bugge, *Studier*, I., p. 4; *idem.*, *Det oldnorske Kvad om Vølund (Vølundarkviða) og dets Forhold til engelske Sagn*, in *Arkiv f. nord. filologi*, 26 (22), pp. 50 f.

ing in general, that is the setting of precious stones or pieces of glass in thin plates of metal—usually bronze or gold, more rarely silver—placed on edge. In the case of bronze, however, stones or glass are sometimes set in recesses produced by moulding. Here we are chiefly concerned with the process of setting precious stones in gold.

Fig. 41 is a reproduction of a finger-ring of gold, found at Högåsen, in the parish of Forsby, Västergötland (Statens Historiska Museum, Stockholm; No. 1325). It is provided with an oval cornelian, set in a plate of gold. Details in the ornamentation indicate that this ring was made in Scandinavia, although the type did not originate there. The ring belongs to the fourth century A.D. In Fig. 42 we see the lower part of a brooch found at Hällan in the parish of Jättendal, Helsingland (Statens Historiska Museum, Stockholm; No. 1774). The brooch is of silver with gilding on the upper side. The four circles and the rhombic plate are, or have been, provided with compactly set garnets, enchased in gold-latten, a process known under the name of *verroterie cloisonnée*. On the circular plates the garnets form a round centre field, on the rhombic plate two triangular fields. The fibula is of Scandinavian type. It was made in the sixth century A.D. Fig. 43, finally, reproduces the pommel and half the upper cross-guard of a sword, which parts were found in Stora Sandviken, parish of Sturkö, Blekinge (Statens Historiska Museum, Stockholm; No. 11,317). The finds are of gold and are richly ornamented with compactly set garnets, enchased in thin walls of gold; under the garnets are chequered gold leaves. The sword hilt from Sandviken is of a Scandinavian type. It dates from the sixth or seventh century A.D.

Chased work of gold set with precious stones is common in the three Scandinavian countries. The process is found also in kinds of objects other than those repro-

duced here. It was introduced into Scandinavia from the Continent. This kind of work began in Scandinavia about 300 A.D., and continued down to about the year 700. From the period 700-1050 I cannot remember more than a single indubitable example of such work, namely, a brooch from the Viking period, stated to have been found in the parish of Hardanger, the county of Southern Bergenus, Norway; it is reproduced in Rygh's *Norske Oldsager*, Fig. 668. But as this brooch is quite unique in Scandinavia, Rygh is undoubtedly right in regarding it as a foreign piece of work; I am unable to ascertain its origin.

The period about 300 A.D. marks the introduction into Scandinavia not only of the process of setting precious stones in gold, but also of enchased work in general. In other branches traces of the technique are found after 700 A.D. A few quite isolated specimens of work with glass set in gold-latten or gilt silver-latten occur in the eighth century or the Viking age. Objects with garnets or pieces of glass in bronze-latten or in recesses in bronze work are of more frequent occurrence. Attention must be drawn here especially to the so-called ridgebutton-brooches. Fig. 44 is a reproduction of one of these bronze brooches from the period about 800 A.D. found at Othemars, parish of Othem, Gotland (Statens Historiska Museum, Stockholm; No. 4555). The brooch had been richly enchased, but, as is usual with other late brooches of this type, the setting is missing, with the exception of a thin plate of garnet which is left on the top of one of the crown-like ornaments which we see on the upper part and the round terminal piece. It is therefore not possible to say whether the brooch was set solely with garnets or also with pieces of glass. The latter seem to be most common on brooches occurring after the year 800; at any rate, I can only remember to have seen garnets as isolated settings on these ridgebutton-brooches, not several garnets placed

close together. The Othem brooch is gilded on the upper side, whilst the under side is silvered. Gilding or silvering frequently occur on ridgebutton-brooches. Seeing that garnets, however sparsely, are known from the Viking age and that some gold-latten work with settings of glass exists from the same period, it may be presumed that during the Viking age in Scandinavia garnets were sometimes, but quite exceptionally, set in gold-latten. It is therefore possible that some piece of such work from the Viking age may be discovered in the future. But such possible finds cannot appreciably modify our present views of the occurrence in Scandinavia of the process of setting precious stones in gold.

The passage in the *Völundarkviða* "he struck the red gold against the glittering precious stone" fits in perfectly with work of the kind reproduced in Figs. 41-43. The stones were set by hammering down the top of the edgewise plates, and thus forming a rim. In the ring in Fig. 41, where the stone has upward bevelled edges, the rim has been produced simply by causing the upper part of the plates to slope inwards. In the brooch in Fig. 42 and the sword hilt in Fig. 43, where the lateral edges of the inlaid stones are at right angles to the parallel upper and lower planes, it has been found necessary to hammer out the upper part of the edgewise plates at right angles to the plates. In setting in silver-latten the procedure adopted was exactly the same. On the other hand, the formation of a rim by hammering was not possible in the case of bronze plates, bronze being a brittle metal. Bronze plates were thus not hammered against stones or glass. Mr. Erik Sörling tells me that he considers it probable that stones and glass were attached to the bronze plates and to the bottom by a kind of putty, of which, as he believes, he has found distinct traces. He moreover considers that the same method was employed in setting stones and glass in the moulded recesses of bronze work. Thus

the passage "he struck the red gold against the glittering precious stone," even if gilded bronze could be described as gold, could not refer to any gilded bronze work with inlaid garnets from the period after 700 (nor, of course, to any such work previous to that time). But it must also be noted that in gilded (as well as silvered) bronze work, coating with gold (or silver) did not take place until the work was otherwise completely finished. This is doubtless the reason why in such work the detached bronze-latten forming a setting for garnets or pieces of glass was—so far as I am aware—never gilded (nor silvered), nor the recesses containing garnets or glass.

The passage in question, of course, can scarcely have been written during a period when gold work set with precious stones was no longer made in Scandinavia (except possibly quite exceptionally). Thus the passage cannot have originated later than the seventh century.

5. lukþi hann alla
lind bauga vel.

The words are thus divided in the manuscript, but the compound *lindbauga* is absolutely required by the rhythm. Scholars have been in great doubt as to the interpretation of this word.

In my opinion, the only reasonable explanation is that given by Detter and Heinzl,¹ who take the first part of the compound to be a feminine *lind*, meaning the snake,² and translate *lindbauga* 'snake-like rings.' They, however, doubt whether a compound *lindbaugr* with that meaning is possible—alleging that conclusive analogies are lacking—and therefore prefer other interpretations. I fail to see, however, why such a compound should be linguistically impossible.

¹ *Sæmundar Edda*, II., pp. 283 f.

² With regard to the existence of this word, see H. Gering's edition of *Eyrbyggja saga* (= *Altnordische Saga-Bibliothek*, edited by G. Ceder schiöld, H. Gering and E. Mogk, vol. 6), Halle a. S., 1897, p. 66.

From an archæological point of view, at any rate, this interpretation is very attractive. As is evident from passages quoted below, the rings are represented as being of gold. Now snake-like rings of gold are very common in Scandinavia. During the period 200-400 the most numerous group of armlets are the so-called snake-head or animal-head rings, Fig. 1. These are spiral and terminate in snake-heads or animal-heads, which gradually degenerate. One of the principal groups of finger-rings is a counterpart to the armlets in question; see Fig. 2. But even from the period 400-550 there are many rings that might be described as snake-like. The spiral monetary rings, Figs. 10, 11, in fact, give the impression of coiled snakes. Some of the armlets are spiral, as shown by Fig. 8. But also neck-rings and armlets, as in Fig. 6, with the ends passing about a half-turn across one another look something like snakes.

After about 550 there are practically no snake-like gold-rings in Scandinavia. The neck-rings, armlets and finger-rings in gold of the Viking age include no types that can be designated as snake rings. Spiral gold rods occur indeed during that period, but only in a few isolated cases.

Thus the term *lindbauga* seems to refer to the period before 550.

Cf. 7. sá þeir á bast
 bauga dregna,
 siau hundrað allra,
 er sá seggr átti.

As I have just stated, the rings are represented as being of gold. When we read of Volund's gold rings threaded on bast cord, our thoughts involuntarily turn to the custom which occasionally crops up during the period 400-550 of threading on a gold rod or gold ring other gold rings, usually monetary rings. In Fig. 11 we have seen an example of this custom. Naturally,

rings were threaded on cords in real life, as in the poem; in the finds, however, the cords have rotted away. From the Viking age I do not know of any example of gold rings threaded on gold rods or on other gold rings. Even during this period ring gold may at times have occurred so plentifully that the rings were sometimes threaded. It seems to me, however, that the description of the seven hundred gold rings threaded on bast cord rather points to the period 400-550, when there was an abundance of gold. It may, of course, be objected that a poet could have conceived such an idea during any period. I consider, however, that, if other passages in the poem point to the epoch of migrations, this passage supports the view that the poem reflects the life of those times.

14. Gull var þar eigi
á Grana leiðo.
19. bauga rauða.
21. Fiolð var þar menia,
er þeim mögom sýndiz,
at væri gull rautt
ok gørsimar.
22. Ykkir læt ek þat gull
um gefit verða.
24. En þær skálar,
er und skörom vóro,
sveip hann útan silfri.

The same passage in strophe 35. With regard to silver vessels, see pp. 29f.

25. en ór augom
iarknasteina.

The same passage in strophe 35. With regard to precious stones, see pp. 33ff.

25. en ór tönnum
tveggja þeira
sló hann brióstkringlor,
sendi Boðvildi.

The same passage in strophe 36. *Brióstkringla* must, of course, mean annular or circular breast ornaments. Seeing that Volund makes them out of the teeth of the two kings' sons and sends them to a single person, they are evidently some kind of breast ornaments of which a large number can be worn at once. Most probably the passage suggests rings or round plates of bone of minor size. I do not know of any archæological parallel to the *brióstkringlor* of the poem, unless it is conceivable that they refer to annular bone beads, specimens of which can be found from different periods of the first thousand years of our era. But, as a whole, the passage in question is rather peculiar.

27. Ek bæti svá
brest á gulli.

Gold is thus mentioned in the poem six times, silver only once.

Helgakviða Hjörvarzsonar.

4. gullhyrndar kýr.
Cf. Þrymskviða strophe 23.
8. Sverð veit ek liggja
í Sigarshólmi,
fiórom færa
en fimm tǫgo:
eitt er þeira
ǫllom betra,
vígnesta bǫl
ok varit gulli.
9. Hringr er í hialti,
hugr er í miðio,
ógn er í oddi,
þeim er eiga getu ;
liggr með eggio
ormr dreyrfáaðr,
en á valbǫsto
verpr naðr hala.

The passages about the sword that is more noble than the others have been much debated. This discussion is a striking example of how one-sided attention to philo-

logical points of view is apt to lead people astray and how necessary it is to subject such passages to the light of archæology.

The discussion has centred round the words *hringr er í hialti*. Several philologists, such as Bugge, Svend Grundtvig, Gering, and Immelmann, believe that *hringr* cannot be correct, seeing that it is placed in correspondence with two abstract substantives, *hugr* and *ógn*. Bugge¹ merely says that *hringr* is possibly a corruption. Grundtvig² points out that there are many words to choose from in place of *hringr*. As possible emendations he suggests *heill* f. 'happiness,' *heipt* f. 'anger, hatred,' *hildr* f. 'struggle,' *hróðr* m. 'honour,' *hungr* m.n. 'hunger.' Gering³ adopts Grundtvig's suggestion *hróðr*. Immelmann,⁴ finally, replaces *hringr* with *hialdr* m. 'struggle, fight.'

It is, of course, remarkable that *hringr* should in this way be placed in correspondence with two abstract substantives. But nevertheless it seems to me by no means inconceivable that *hringr* may be genuine. In the first place, it would be hazardous to assume that an ancient poet must be innocent of such anomalies as placing a concrete substantive in correspondence with an abstract one. And secondly—what is more important—it is conceivable that the ring in question had a symbolical significance, that it was a symbol of the rank of chieftain. That the ring in the guard actually had such a significance and did not serve any practical purpose will presently be made clear by the light of archæology. In that case the word *hringr* is not given direct in its ordinary concrete sense, but rather as a

¹ Bugge, S., *Sæmundar Edda*, p. 407.

² Grundtvig, S., *Sæmundar Edda*, 2nd edition, Copenhagen 1874, p. 220a.

³ In the third edition of K. Hildebrand's *Die Lieder der älteren Edda* (= *Bibliothek der ältesten deutschen Literatur-Denkmäler*, VII.), Paderborn, 1912

⁴ Immelmann, R., *Das altenglische Menologium*, Berlin, 1902, p. 65.

symbol for an abstract conception corresponding to *hugr* and *ógn*.

Archæology shows that the text in question has been preserved entirely correct.

As has already been mentioned (p. 9), Stjerna¹ has shown that the passage *hringr er í hialti* refers to the so-called ring-swords so familiar to archæologists.

In Scandinavia, as in England, Germany, France and Italy, we find during a limited period swords which are provided with rings in the guard.² Typologically the earliest stage of these swords is represented in Fig. 45; this sword is from Bifrons in Kent. In the upper guard we see here an annular loop holding a movable ring. Swords of this stage of development are hitherto known only from England. In Fig. 46 we see a sword in the next stage of development; it is from Endregårda, parish of Endre, Gotland (Statens Historiska Museum, Stockholm; No. 484: 36). Here the loop and the ring have increased considerably in thickness. The ring entirely fills the opening of the loop, whence it is no longer movable. But the ring and the loop are still made separately. Finally the swords developed into the type a specimen of which is reproduced in Fig. 47; this sword is from Vallstenarum, parish of Vallstena, Gotland.³ Here the ring and loop entirely combine. Of the types in Figs. 46, 47 there are specimens from different parts of Scandinavia, as well as a few specimens from England, Germany, France and Italy. On the sword in Fig. 45 the hilt

¹Stjerna, K., Hjälm och svärd i Beowulf, in Studier tillägnade Oscar Montelius 9/9/1903, pp. 114 ff. (=Essays on Beowulf, pp. 25 ff.

²In addition to Stjerna's essay and Montelius' above-mentioned lecture to the Archæological Congress at Copenhagen, reported in Aarbøger, 1920, the reader is referred for the study of ring-swords to Montelius' treatise in Hallands Fornminnesförenings Årsskrift, 1872, pp. 134 ff., and to Salin's Die altgermanische Thierornamentik, Stockholm, 1914, p. 101, as well as to the literature quoted in the list of figures in the last-mentioned work. See also Åberg in Fornvännen, 1922, pp. 22 f.

³Hildebrand, B. E. and H., Teckningar ur Svenska Statens Historiska Museum, III., Stockholm, 1883, p. 8, Fig. 26a.

parts are of bronze, partly gilded and silvered. In Fig. 46 the three-sided pommel consists of gilded silver, whereas the cross-guard, the ring and the loop are of gilded bronze. Finally, in Fig. 47 the cross-guards, the three-sided pommel and the combined ring and loop are of gilded bronze, the three-sided pommel having a setting of garnets between walls of gold-latten; the oval mountings below the upper and above the lower cross-guard are of gilded silver. Ring-swords having hilt parts of metal gilded are rather common. We likewise find ring-swords having hilt parts of pure gold. The sword in Fig. 45 belongs to the period 500-550, swords as in Fig. 46 to the second half of the sixth century and the period about 600, and swords as in Fig. 47, generally speaking, to the seventh century. Ring-swords occur only during the above stated periods; before about 500 and after 700 they are entirely lacking both in Scandinavia and elsewhere.

Stjerna is indubitably right in stating that the words *hringr er í hialti* in *Helgakviða Hjörvarzsonar* refer to a sword of this kind. Montelius¹ is of the opinion that the passage must refer to a sword like that in Fig. 45 or 46 with a real ring, as the former rings on swords like that in Fig. 47 no longer give the impression of rings. Stjerna has drawn attention to the fact that ring-swords are mentioned in several places in *Beowulf*, e.g. v. 1564 *fetelhilt*, 'link hilt.' As mentioned above (p. 9), Montelius has further pointed out that a ring-sword is referred to in strophe 68 of the *Sigurðarkviða* in *skamma* in the words *málmr hringvariðr*.

I must add that the points of correspondence between the sword of the *Helgakviða* and the swords of real life are further marked by the fact that the sword of the *kviða* is stated to be *varit gulli*, 'coated with gold,' and that ring-swords often had metal parts of gilded bronze (occasionally certain parts of gilded silver).

¹ Aarbøger, 1920, pp. 40 ff.

Both Stjerna and Montelius consider that the ring in the hilt was not intended for any practical purpose. Montelius points out that if it was desired to attach a cord to the guard, this could easily have been done by means of the loop. Stjerna considers, and adduces proofs, that the guard ring was a symbol of the rank of chieftain. This is in fact indicated by *Beowulf*.

It is obvious that the words *hringr er í hialti* must have been written at a time when people possessed ring-swords, or at any rate a reminiscence of them. Thus the passage cannot have originated later than about 700, or shortly afterwards, and, seeing that it seems to refer to a ring-sword of the kind reproduced in Figs. 45 and 46, with a real ring, it can scarcely be later than the earlier part of the seventh century.

The passage *liggr með eggio ormr dreyrfaaðr* "there lies along the edge a blood-glittering snake". is regarded by Stjerna as a description of the damascening of the sword. In swords found in Scandinavia this mode of decoration is believed to have been produced by means of welded iron and steel rods of different degrees of hardness; the inlaying was brought into relief by etching with acids which had a different action on the rods according to the degree of hardness. In many cases the inlays are undulating, which gives the impression of snakes. Fig. 48 is a reproduction of this kind of damascening on the sword from Raftötången, parish of Tanum, Bohuslän (Statens Historiska Museum; No. 1270 :477)¹; it is from the Viking age. The word *dreyrfaaðr*, according to Stjerna, indicates that the damascened part may have been coloured with red substance. Stjerna adduces several other literary proofs of the existence of damascening. In *Helgakviða Hundingsbana I* : 8 mention is made of *blóðorm búinn*. In *Brot 19* we have a further proof from the Edda, to

¹ Montelius-Ekhhoff, *Bohuslänska fornsaker från hednatiden*, Stockholm, 1874 ff, pp. 159 f.

which we shall recur below. Damascened swords are mentioned in several places in *Beowulf*. Stjerna further states that Ibn Fozzlan in his famous description of the Scandinavians in Russia in one place mentions their damascened swords. Falk¹ adduces some additional evidence of damascening, from Scandinavian literature.

Damascened swords occur in Scandinavia at any rate from about 300 A.D.

Finally, as to the passage *en á valbqsto verþr naðr hala*, the meaning of *valbqst* cannot be determined with certainty. Cf. Falk's discussion and suggestion in his *op. cit.* on pp. 29 f. This much, however, is certain, that the word does not refer to any part of the blade, as some scholars suppose. As Falk points out, strophe 6 in *Sigrdrífomál* (cf. below) shows that *valbqst* must belong to the cross-guards or one of them. Stjerna, who is inclined to believe that the word refers to the lower guard, and Falk, who supposes that it refers to metal plates on the guards, adduce the animal scrolls which frequently occur on different parts of the hilt. In Fig. 12 we see them on the pommel, in Fig. 47 on the oval mountings under the upper guard and above the lower; they are also found on the actual cross-guards, as is shown by Fig. 49, representing a sword belonging to the eighth century from Skåne or Halland (Statens Historiska Museum, Stockholm; No. 2110). Swords with the hilt decorated with animal scrolls are known both from the epoch of migrations and from the Viking age.

26. Margullin mær.

Helgakviða Hundingsbana I.

3. Snøro þær af afli
 órloqþátto,
 þá er borgir braut
 í Brálundi.

Falk, *Altnordische Waffenkunde*, pp. 18 f.

The third line must somehow be corrupt, as this impersonal use of the verb *brióta* is scarcely possible. Various emendations have in fact been proposed. Some of them, however, are rather far-fetched, *borgir* being replaced by a substantive beginning with *Borg*—. Thus Svend Grundtvig¹ amends the passage to: *þeim er Borghildir bar*. Vigfússon² proposes *burar Borgildir*. And Viktor Rydberg³ inserts an otherwise unknown *Borgarr* and reads: *þá er Borgarr braut* “when Borgarr settled in the country.” Such emendations are obviously not permissible. The verb *braut* tells us that the word *borg* here is certainly genuine. But, as it seems impossible to reconstruct the entire text, it is unnecessary to mention the various emendations retaining the word *borg*.

Bugge⁴ believes that the term refers to “the life of the Scandinavians in Britain.” But Hederström⁵ is certainly right in saying that this assumption is unnecessary, and that the castles referred to are the ancient castles which were common in Scandinavia in prehistoric times. These consisted of rocks precipitous on one or more sides, which did not require to be fortified, whilst the other sides sloped more gently and were provided with long ramparts made of heaped-up stones. Such castles are found in Sweden with the exception of the former Danish provinces, Skåne, Blekinge and Halland, as well as in Norway. Several have been subjected to archæological examination and have been found to belong to the period 400-1050 A.D.⁶ Fig. 50

¹ Op. cit., p. 221.

² *Corpus poeticum boreale*, edited by G. Vigfusson and F. York Powell, Oxford, 1883.

³ Rydberg, V., *Undersökningar i germansk mytologi*, Stockholm, 1886, pp. 141 f.

⁴ Bugge, *Studier*, II., p. 82. *The Home of the Eddic Poems*, p. 81.

⁵ Op. cit., II., pp. 69 f.

⁶ See Schnittger, B., *Die vorgeschichtlichen Burgwälle in Schweden*, in *Opuscula archæologica Oscari Montelio dicata*, Stockholm, 1913, pp. 335 ff.

is a sketch of the so-called Gullborg in the parish of Tingstad, Östergötland, which has yielded finds from the period about 400 A.D.

3. þær um greiddo
gullin símo.
8. blóðorm búinn.

Cf. above, p. 44. Strictly speaking, the term *blóðormr* refers to the actual damascening. Here, however, it is used in a derivative sense to designate the damascened sword.

9. Hann galt ok gaf
gull verðungo.
- Cf. Hyndlolióð 2.
21. ógnar lióma.

Cf. Fafnismál 42. "The river's sheen" is gold. Originally *ógn* was possibly a river name. But it is unnecessary to enter into this question here.

23. beit h . . . út skriðo
ok búin gulli.
- Cf. strophe 50.
33. slong upp við rá
rauðom skildi,
rond var ór gulli.

That the shield had been red means, of course, that it had been painted red. In many other passages in ancient Scandinavian literature there are references to painted red shields. Likewise in Scandinavian literature there are numerous references to shields of other colours and to unpainted shields.

The shield is further represented as having an edge of gold. This can scarcely be understood to mean that the edge was of pure gold, which would seem to have been somewhat extravagant. At any rate, it is quite as likely that the passage signifies that the rim was gilded.

Turning to the archæological material, it must first be mentioned that we possess shield rims of bronze or iron

from different periods of the first thousand years of our era. On the other hand, I do not know a single incontestable example of such rims having been gilded. Probably, however, one of the famous chieftain graves at Vendel in Uppland contained parts of such a gilded shield-rim. In grave XII. there were found a number of fragments of grooved bronze mountings, one of which is reproduced in Fig. 51. Two of these mountings bear traces of gilding. As Arne states in his description of the Vendel graves,¹ these fragments must either have belonged to a rim of a shield or a scabbard, or both. This grave belongs to the second half of the seventh century. In spite of the dearth or entire lack of specimens of gilded rims of shields, it may be said that such rims must have been confined to the period 550-800, or at any rate must have occurred principally during that period. In fact, gilded bronze rims of various objects occur during this time, whilst they are scarcely known in any other period. What is of special interest to us here is that shield bosses from this period—and from this period only—are occasionally provided with gilded bronze rims. The most celebrated examples of such shield bosses are derived from a couple of the Vendel graves (XII. and I.) and from the above-mentioned grave (p. 42) from Vallstenarum in Gotland. In Fig. 52 we see a shield boss from grave XII. at Vendel. The actual central boss is of iron, but it has a top button, five brim studs and rich mountings, all in gilded bronze. But what particularly interests us here is that it has a grooved rim of gilded bronze. Fig. 53 shows what is left of the shield boss from the Vallstenarum grave.² This boss also was of iron, but here too the top button and brim studs are of gilded bronze. It is, however, of special interest here to note that this central boss too has

¹ Stolpe, Hj. and Arne., T. J., *Graffältet vid Vendel*, Stockholm, 1912, pp. 49 f.

² Hildebrand, B. E. and H., *Teckningar ur Svenska Statens Historiska Museum*, III., p. 8, Fig. 37.

a fluted rim of gilded bronze; the rim is fastened to the brim by five gilded bronze mountings in the form of animal heads. In this grave there were also found a number of fragments of fluted edgings, which, at any rate in part, must have served as the rim of the actual shield; but these mountings were of non-gilded bronze. The aforesaid graves from Vendel and Vallstenarum belong to the second half of the seventh century. During a period when gilded bronze rims were occasionally used for edging the shield boss, it is only natural that the rim of the shield itself should now and then have been made of gilded bronze

The passage *ronð var ór gulli* must thus in all probability have originated in the period 550-800 A.D.

42. Þú vart brúðr Grana
á Brávelli,
gullbitloð.

Similarly, as in the preceding passage, it cannot be said with certainty whether the poet meant a bridle of gold, or a gilded bridle.

Bridles and strappings with metal parts of gold are not known from ancient Scandinavia. On the other hand, bridles and strappings with metal parts largely consisting of gilded bronze are quite common during the late Iron age. They are particularly common during the period 550-800. Thus the Vallstenarum grave contains a rich set of metal accessories for bridle and strappings, consisting principally of gilded bronze. In Fig. 54 we see the actual bridle. The bit is made of iron, the two large rings of bronze, and the two mountings on each ring of gilded bronze. A number of gilded bronze mountings belonged also to the strappings, some forms of which are reproduced in Figs. 55 and 56. All the earlier Vendel graves, those belonging to the seventh or eighth centuries, had a set of gilded bronze mountings for bridles and strappings. Fig. 57 is a reconstruction of a bridle with strappings found in

grave III. belonging to the eighth century. The bit is, as always, of iron, the other metal parts are of gilded bronze and are also largely provided with inlays of enamel; remnants of the leather have been preserved. In Figs. 58 and 59 we see details of the bridle and the strappings. Several other examples of bridles and strappings with gilded bronze mountings might be mentioned from the period 550-800. But there are examples of such gilded bronze mountings also from the Viking age, *e.g.*, in one of the famous grave-mounds at Borre on the Christiania Fjord, erected over the bodies of members of the Norwegian Ynglinga family. The grave in question belongs to the second half of the ninth century.¹

50. brimdýr blásvort
ok búin gulli.

Cf. strophe 23.

56. rauðir baugar.

Helgakviða Hundingsbana II.

19. gunnfana
gullinn

No remains of ancient standards have been preserved.

35. bauga rauða.

36. gullbitli vanr.

Cf. above under *Helgakviða Hundingsbana I.*, 42.

45. grætr þú, gullvarið!

Gripisspá.

7. Þú munt maðr vesa

· · · ·
· · · ·
· · · ·

giöfull af gulli.

13. gulli hlæða
á Grana bógo.

¹ Brøgger, A. W., *Borrefundet og Vestfoldkongernes Graver* (= *Videnskapselskabet's Skrifter*, II., *Hist.-Filos. Klasse*, 1916, No. 1), Figs. 14 ff.

Reginismál.

1. finn mér lindar loga !

The "river's flame" is gold.

5. gull
er Gustr átti.

6. Gull er þér nú reitt.

9. Rauðo gulli.

15. hringa rauða.

Fáfnismál.

9. it gialla gull
ok it glóðrauða fé,
þér verða þeir bangar at bana !

20. The same passage as in strophe 9.

21. en ek ríða mun til gullz,
þess er í lyngvi liggr !

34. Qllo gulli.

40. Bitt þú, Sigurðr,
bauga rauða

.
.
mey veit ek eina
.
gulli gædda.

42. A hall in Hindarfjall is made
ór ódøkkom
ógnar líóma.

Cf. Helgakviða Hundingsbana I., 21.

Sigrdrífomál.

6. Sigrúnar þú skalt kunna,
ef þú vilt sigr hafa,
ok rísta á hialti higrs,
sumar á véttrim m,
sumar á valbøstom.

As Falk¹ points out, this passage shows that *véttrim* and *valbøst* are not parts of the blade, as was supposed, but of the cross-guards. The exact interpretation is, however, uncertain. Cf. Falk's suggestion and p. 45.

¹ Falk, op. cit., pp. 28 ff.

17. á gleri ok á gulli
ok á gumna heillum.

Thus according to R. According to V :

á gleri ok á gulli
ok á góðu silfri.

28. Sifia silfr
látaðu þínom svefni ráða.
35. úlfr er í ungom syni,
þótt hann sé gulli gladdr.

Brot.

19. Benvond of lét,
brugðinn gulli,
margdýrr konungr,
á meðal okkar :
eldi vóro eggjar
útan gǫrvar,
en eitrdropom
innan fáðar.

Falk¹ believes that the words *brugðinn gulli* 'twined with gold' refer to gilded bronze inlays in the hilt in the form of twisted or plaited patterns. The evidence he adduces for this view is that the same scene in *Sigurðarkviða* in *skamma*, strophe 4, runs :

Seggr inn suðrœni
lagði sverð nǫkkvit,
mæki málfán,
á meðal þeira.

where *málfár* means 'provided with inlaid ornaments.' But the fact that in one case we have *á meðal okkar*, in the other *á meðal þeira* need not necessarily show any direct connection between the two strophes, as the phrases in question are almost obvious. There is therefore no reason for interpreting *brugðinn gulli* in any other way than the natural sense, 'twined, wrapped round with gold.' This interpretation is in fact adopted by most scholars, *e.g.*, Finnur Jónsson.² The expression evidently alludes to the fact that the handle

¹ Falk, *op. cit.*, p. 32.

² S. Egilsson's *Lexicon Poeticum*, 2nd ed., Copenhagen 1913-1916.

of the sword was twined with gold thread. Such swords are known from the late Iron age of Scandinavia. Fig. 60 is a reproduction of one of these swords from Dybeck, parish of Ö. Vemmenhög, Skåne. The cross-guards are made of gilded silver and are richly ornamented. The actual tang is twined with thin gold thread. The hilt was evidently of bone or horn and provided with grooves running all round, in which the gold thread was wound; the bone or horn parts have decayed. This sword is from the Viking age.

The words *eldi vóro eggjar útan gǫrvar* signify that the edges were of hardened steel. The passage *en eitrdropom innan fáðar*, according to Stjerna,¹ refers to damascening. In Scandinavia, where people did not make damascened swords themselves, it might easily have been imagined that the inlays were drops of poison. Cf. above, p. 44.

Guðrúnarkviða I.

3. iarla brúðir,
gulli búnar.
21. Mana þú, Gunnarr,
gullz um nióta ;
þeir muno þér baugar
at bana verða.
26. þá er vit í hóllo
húnskrar þjóðar
eld á iðfri
ormbeðs litom.

‘the fire of the snake-bed’ is gold.

Sigurðarkviða in skamma.

16. Rínar málmi.
39. er með gulli sat
á Grana bógom.
36. gull né iarðir.
38. bauga rauða.
47. gullbrynio smó.

Coats of mail of iron are known from different parts of the Scandinavian Iron age, but we do not know of

¹ Stjerna, *Hjälmar och svärd i Beowulf*, p. 112.

any of gold nor gilded. Possibly gilded coats of mail may have occurred by way of exception.

49. þeir er gull vili

 ek gef hverri
 um bróðit sigli.

Brynhild thus gives each of her women a *sigli*, 'ornament,' coated with metal, thus gilded or silvered.

52. neitt Menio góð.

Menio góð, 'the treasures of Menja,' are gold.

68. Liggi okkar enn í milli
 málmr hringvariðr,
 egghvast iarn.

Cf. above p. 43, *Helgakviða Hjörvdrzsonar* strophe 9.

Helreið Brynhildar.

2. vár gullz.

Vár = the goddess of fidelity. *Vár gullz* is a periphrasis for woman.

10. þannz mér færði gull,
 þats und Fáfni lá.

Guðrúnarkviða II.

1. unz mik Giúki
 gulli reifði,
 gulli reiði.

2. Svá var Sigiðr
 of sonom Giúka,
 sem

.

eða gull glóðrautt
 af grá silfri.

14. Hon mér at gamni
 gullbókaði.

16. skip Sigmundar
 skriðu frá landi,
 gyltar grímor.

18. Gorr léts Gunnarr
gull at bióða.
25. Gef ek þér, Guðrún,
gull at Þiggia,
fiq ð allz féar,
. . . .
hringa rauða,
. . . .
. . . .
. . . .
26. húnskar meylar,
þær er hlaða spiöldom
ok gøra gull fagitt,
svá at þér gaman þikki—
ein skaitu ráða
auði Buðla,
gulli gøfgoð.

Guðrúnarkviða III.

This poem requires no comment from an archæological point of view.

Oddrúnargrátr.

15. Mik bað hann gœða
gulli rauða.
21. Buðo þeir árla
bauga rauða,
. . . .
. . . .
bauð hann enn við mér
hliðarm Grana.

“The Grane’s side cargo” is gold.

26. Buðo vit þegnom
bauga rauða.
28. Hlymr var at heyra
hófgullinna.

Gilded horse-shoes are not known in Scandinavia in prehistoric times.

33. linnvengis bil.

Bil was originally the name of a goddess, but came to be used to mean goddess in general. The goddess of the ‘snake bed,’ that is of gold = woman.

Atlakviða.

4. hiálma gullroðna.

Helmets from ancient Scandinavia are still rather rare. The oldest specimens are two from the find in the Thorsbjerg moss in Slesvig; they are from the period about 300 A.D.¹ One of these helmets is a Roman piece of work, the other Teutonic. Otherwise helmets are not known before the sixth and seventh centuries. From this period there are a good many specimens, some of which, however, consist merely of small fragments. From the same period we also possess a good many reproductions of helmets; cf. Fig. 61. No helmets of the eighth century and the Viking period have, curiously enough, yet been discovered; on the other hand, we have reproductions of such helmets, *e.g.*, on a runestone from the eleventh century near Ledberg Church in Östergötland.²

The frame of the helmets evidently consisted, as a general rule, of iron (one of the Thorsbjerg helmets, however, is of bronze, the other of silver). The iron frame was, however, richly covered with bronze mountings. Occasionally some of these bronze mountings were gilt. Fig. 61 is a reproduction of one of the famous helmets from Vendel (grave XIV.), where several of the mountings are gilded. (The silver helmet from Thorsbjerg is decorated with thin gold plates.)

That gilded helmets were in use during the Viking age is, however, evident from various reliable historical sources, *e.g.*, Nials saga and other Icelandic family sagas.³

4. silfrgylt sǫðulklæði.

There are no remnants of saddlery from ancient Scandinavia.

¹ Engelhardt, C., Thorsbjerg Mosefund, Copenhagen, 1863, Pl. 5.

² Svenska Fornminnesföreningens Tidskrift, XII., p. 10, Fig. 4.

³ Falk, *op. cit.*, p. 156.

5. Völl léts ykkir ok munda gefa
viðrar Gnitahiðar,
af geiri giallanda
ok af gyltom stófnom.
6. Gull víska ek ekki
á Gnitahiði,
þat er vit ættima
annat slíkt !
7. Siau eigo vit salhús,
sveiða full,
hverio ero þeira
hiðt ór gulli.

Here there can be no question of gilded cross-guards, but only of cross-guards of gold. These are known only from the sixth and seventh centuries A.D. In Fig. 43 we have an example of such guards. Literature, however, seems to indicate that swords with guards of gold occasionally occurred in Scandinavia even during the Viking period.¹

7. en brynior ór gulli.
Cf. pp. 53 f.
8. Hár fann ek heiðingia
riðit í hring rauðom.
10. greppa gullskálir.
Cf. p. 21.
20. gulli kaupar.
21. saxi slíðrbeito.
Cf. p. 20.
27. heldr en á höndom gull
skíni Húna börnom !
31. svá skal gulli
frækn hringdrifi
við fira halda !
33. með gyltom kálki.
Cf. p. 21.
37. gullz miðlendr.
39. Gulli søri
in gaglbiarta,
hringom rauðom
reifði hon húskarla ;
skop lét hon vaxa,
en skíran málm vaða.

¹ Falk, *op. cit.*, p. 25.

Atlamál in grœnlensko.

13. Okkr mun gramr gulli
reifa glóðrauðo.
46. Qtol var þá Guðrún,
er hon ekki heyðí,
hlaðin hálsmeniom:
hreytti hon þeim górvøllum,
slóugði svá silfri,
at í sundr hruto baugar.

Gudrun is thus decked with neck-rings of silver, a statement which directly points to the Viking age.

70. mani mun ek þik hugga
mætom ágætom,
silfri snæhvíto.
72. gæddi okkr Grímildr
gulli ok hálsmeniom.

The neck ornaments are thus apparently not of gold, but rather of silver. Cf. the note to strophe 46.

95. silfr var þó meira.

It should be noted that in this poem silver is mentioned three times and alluded to once, whilst gold is mentioned twice.

Guðrúnarhvøt.

16. Gædda ek gulli.

Hamðismál.

20. lét hann sér i hendi
hvarfa ker gu lit.

Cf. p. 21.

Grottasøngr.

20. Munat þú halda
rauðom bringom.

Fragments of Snorra Edda.

Concerning the grove Glasir.

The verse. Glasir stendr
með gullno laufi.

V.

CHRONOLOGICAL CONCLUSIONS.

It remains to be seen, finally, what conclusions of a chronological character can be drawn from the preceding detailed researches.

Some passages point to certain periods of time.

Hrímkálkr in *För Skírnis* occurs only in the period 100-550 A.D. The passage *hann sló gull rautt við gim fástan* in *Völundarkviða* indicates the period 300-700, the word *lindbauga* the period 200-550 A.D. The ring-swords referred to in *Helgakviða Hiqrvarzsonar* and *Sigurðarkviða* in *skamma* occur only during the period 500-700 A.D., their direct counterparts only during the sixth century. Finally, it may be added that the reference to a shield in *Helgakviða Hundingsbana I. rōnd var ór gulli* seems to point to the period 550-800 A.D.

On the other hand, the twisted gold collars of the *Þrymskviða* and probably also the word *skillinga* point to the Viking age. Likewise the silver neck-rings of *Atlamál*, probably twice mentioned, reflect the Viking age. The silvered bowls of the *Rígsþula* possibly also point to the Viking age.

The archæological study of the passages in question in the first group merely shows that these passages must originally have been written during the times which they reflect. They may have been borrowed from earlier poems, whilst other parts of the poems quoted may be of later date. In *För Skírnis*, *Völundarkviða*, *Helgakviða Hundingsbana I.* and *Sigurðarkviða* in

skamma only one or two lines at the passages in question need therefore have been of ancient origin. On the other hand, the detailed description of the ring-sword in *Helgakviða Hjörvarzsonar* shows that several of the lines there must date from the epoch of migrations.

This result, however, brings up the question whether these poems were not entirely, or at any rate to a considerable extent, composed during the time indicated by the details archæologically examined.

In endeavouring to answer this question, it will be of great interest to compare our results with those of the philologists.

The Eggjum stone has shown that the Primitive Scandinavian language had already in the seventh century developed into a language which, broadly speaking, is at the same stage of development as the language in the Eddic poems, and therefore that some of the Eddic poems *may* have been composed as far back as the seventh century. For *Skírnis* is written in *ljóðaháttir*. Now several of the poems in this metre, according to Erik Noreen, are such that the Primitive Scandinavian forms can be inserted without spoiling the metre. For *Skírnis* precisely is one of the two poems in *ljóðaháttir* which, according to the author last mentioned, are indicated by the metre to have been written during the Primitive Scandinavian period, that is, not later than the first half of the seventh century, the Primitive Scandinavian forms having been afterwards contracted. *Völundarkviða* is likewise one of the three poems in *fornyrðislag* that are, metrically speaking, most irregularly constructed, and therefore make the impression of being most ancient; in them too Primitive Scandinavian forms can be inserted without spoiling the metre. According to Hederström, Helge Hundingsbane lived during the second half of the seventh century. The

poems about him, according to that author, have such a realistic character that they cannot have been written long after the death of Helge. Broadly speaking, this view is right; but I consider that, as a good many passages are evidently fiction, certain parts of the poems can scarcely have been written before the beginning of the eighth century.

Passing to the second group, it is interesting to note that *Atlamál*, in which the reference to silver neck-rings points to the Viking age, can be stated with certainty, on non-archæological grounds, to have been written during this period; it is generally recognized to have been written in Greenland, which was not discovered till the Viking age.

Thus we see that precisely those poems, *För Skírnis*, *Völundarkviða* and *Helgakviða Hundingsbana I.*, which, for philological reasons, may be presumed to be earlier than the Viking age, contain passages which, in the light of archæology, carry us back to times earlier than the Viking period, whilst in one poem, *Atlamál*, which for historical and philological reasons must be assigned to the Viking age, a passage studied archæologically points precisely to the Viking period.

If we put together the results arrived at by archæology and philology, it seems to me that there is really great probability that *För Skírnis* and the *Völundarkviða* were written before about 550 A.D., and *Helgakviða Hundingsbana I.* before about 750, or that this at any rate holds good of large parts of those poems.

But probably also other Eddic poems originated before the Viking age. This is indicated by the occurrence of gold and silver in the poems.

It has been shown in the preceding chapter what a dominating part gold plays in the Edda compared with silver. Gold is mentioned in the Edda more than a hundred times, silver only twelve (whereof once, in

Atlakviða 4, gilded silver). It may, of course, be objected that it was quite natural for the poets in songs of gods and heroes to introduce the most noble metal. In one poem, Guðrúnarkviða II., the preference of gold to silver is in fact very distinctly marked, when Sigurd is said to be as superior to the sons of Gjuki as glowing red gold is to grey silver. To some extent the frequent occurrence of gold in the Edda can be accounted for by the fact that it is the noblest metal. But this explanation does not carry us very far. For in other poems there are allusions to the high estimate set on silver. In Grímnismál silver is considered to be such a noble metal that two dwellings of the gods are roofed with it, at the same time as one of them is said to have a foundation of gold. In Þrymskviða, strophe 4, gold and silver are practically compared. And in Atlamál mention is made of "the snow-white silver."

It might also be objected that, seeing that the Sigurd lays to a large extent deal with a treasure of gold, it is natural that gold should play a great part in them. But even if we set aside the passages where this gold treasure is mentioned, there still remains a striking disproportion between gold and silver in the Eddic poems.

Nevertheless, the frequent occurrence of gold in the Eddic poems is not so remarkable as the dearth of silver. Had the Eddic poems in the main originated during the Viking age, when silver was so abundant, silver ought undoubtedly to have played a much more prominent part in them. An author can scarcely avoid being influenced by the conditions of his time: silver, one would think, must instinctively have crept into a number of descriptions. This is more than a theoretic argument: it is well borne out by observing the conditions in Atlamál. This poem, which may be asserted with complete assurance to have been composed during the Viking age and not before, stands apart from the rest of the Eddic poems with respect to the proportion

between gold and silver. Here silver predominates over gold, the former being mentioned three times (and indicated once), the latter only twice. Otherwise silver outweighs gold only in the *Rígsþula*, which mentions silver once, and gold not at all; this poem also can be presumed on non-archæological grounds to belong to the Viking age. As regards other poems, silver occurs most prominently in *Grímnismál*, where it is mentioned twice as against gold three times, and possibly in *Sigrdrífomál*, where in one manuscript it is mentioned twice, in another, however, only once, whereas gold is mentioned twice. (In *Völundarkviða* silver is mentioned in strophes 24 and 35, but here the same passage is repeated). Otherwise silver is mentioned only once in each of the poems *Atlakviða*, *Guðrúnarkviða II.* and *Þrymskviða*. In the two first gold is considerably in preponderance, whilst in the last-mentioned poem gold is referred to four times, but twice under conditions which point to the Viking age.

Thus, in my opinion, the main body of the Eddic poems must have originated before the Viking age, which was rich in silver, or at any rate the essential parts of most of the Eddic poems must have been written before that period.

LIST OF ILLUSTRATIONS.

- Fig. 1. Armlet of gold. Vestringe, parish of Etelhem, Gotland, Sweden. 1/1. (From Almgren-Nerman, *Die ältere Eisenzeit Gotlands*, I.-II., Stockholm, 1914, 23, Fig. 368).
- Fig. 2. Finger-ring of gold. Himlingøie, Zealand, Denmark. 1/1. (From *Memoires de la Société royale des antiquaires du Nord*, 1866-71, Pl. 10, Fig. 4).
- Fig. 3. Necklet of gold. Parish of Källunge, Gotland, Sweden. 2/3. (From Almgren-Nerman, *Die ältere Eisenzeit Gotlands*, Fig. 376).
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- Fig. 12. Sword pommel of gold. Village and parish of Skurup, Skåne, Sweden. 1/1. (From Montelius in Svenska Fornminnesf. Tidskrift, X., p. 89, Fig. 194).
- Fig. 13. Gold mounting of sword hilt. Tureholm, near Trosa, Södermanland, Sweden. 1/1. (From Montelius, Antiquités suédoises, Stockholm, 1873-75, Fig. 408).
- Fig. 14. Gold mounting of scabbard. Stavijordet, Eidsvold, county of Akershus, Norway. 1/1. (From Salin, Die altgermanische Thierornamentik, p. 239, Fig. 537).
- Fig. 15. Armlet of gold. Vullum, parish of Strinden, county of Stavanger, Norway. 1/1. (From Rygh, Antiquités norvégiennes, Christiania, 1885, Fig. 714).
- Fig. 16. Armlet of gold. Village of Östra Torp, Skåne, Sweden. 1/1. (From Montelius, Antiquités suédoises, Fig. 602).
- Fig. 17. Finger-ring of gold. Vifärna, parish of Kulla, Uppland, Sweden. 1/1. (From Montelius, Antiquités suédoises, Fig. 621).
- Fig. 18. Necklet of gold. Fjälkestad, parish of Fjälkestad, Skåne, Sweden. 2/3. Statens Historiska Museum, Stockholm, No. 2353.
- Fig. 19. Arabic silver coin from the beginning of the tenth century. Fölhagen, parish of Björke, Gotland, Sweden. 1/1. (From C. J. Tornberg in Antikvarisk Tidskrift för Sverige, III., p. 55, Pl. 1, Fig. 2).
- Fig. 20. German silver coin, stamped for Otto III. and Adelheid about 995. Same find as Fig. 19. 1/1. (From H. Hildebrand in Antikvarisk Tidskrift för Sverige, III., p. 59, Fig. 1).
- Fig. 21. Anglo-Saxon silver coin, Ethelred III. (979-1016). Stockholm. 1/1. (From Nerman, Det forntida Stockholm, Stockholm, 1922, p. 16, Fig. 12).
- Fig. 22. Necklet of silver. Same find as Fig. 15. 1/2. (From Rygh, Antiquités norvégiennes, Fig. 703).
- Fig. 23. Necklet of silver. Undrom, parish of Boteå, Ångermanland, Sweden. 2/3. (From Montelius, Antiquités suédoises, Fig. 616).
- Figs. 24, 25. Armlets of silver. Same find as Fig. 19. 1/1. (From H. Hildebrand in Antikvarisk Tidskrift för Sverige, III., pp. 91, 93, Figs. 5, 6).

- Fig. 26. Finger-ring of silver. Torsta, parish of Tuna, Helsingland, Sweden. 1/1. (From H. Hildebrand in *Kgl. Vitterhets Historie och Antikvitets Akademiens Månadsblad*, 1882, p. 98, Fig. 20).
- Fig. 27. Monetary ring of silver. Parish of Vamlingbo or Sundre, Gotland, Sweden. 1/1. (From Montelius, *Antiquités suédoises*, Fig. 641).
- Fig. 28. Ingot of silver. Near Visby, Gotland, Sweden. 2/3. (From Montelius, *Antiquités suédoises*, Fig. 639).
- Fig. 29. Pendant of silver. Same find as Fig. 19. 1/1. (From H. Hildebrand in *Antikvarisk Tidskrift för Sverige*, III., p. 102, Fig. 13).
- Fig. 30. Buckles and chain of silver, the buckles partly gilded and with inlaid niello. Jämjö, parish of Gärdslösa, Öland, Sweden. < 1/2. (From *Fornvännen*, 1908, p. 274, Fig. 150a).
- Fig. 31. Backgammon men, made of dark and bright glass, from the late Roman Iron age, Holmgaard, parish of Holme, county of Lister and Mandal, Norway. 1/1. (From Jan Petersen in *Oldtiden*, 1914, p. 79, Fig. 2).
- Fig. 32. Backgammon man of bone from the period about 300 A.D. Havor, parish of Hablingbo, Gotland, Sweden. 1/1. (From Almgren-Nerman, *Die ältere Eisenzeit Gotlands*, Fig. 444).
- Fig. 33. Backgammon man of bone from the seventh century. Grave XIV. Vendel, Uppland, Sweden. 1/1. (From Stolpe and Arne, *Graffältet vid Vendel*, Stockholm, 1912, Pl. XLIV., Fig. 19).
- Fig. 34. Die of bone from the late Roman Iron age. Havor, parish of Hablingbo, Gotland. 1/1. (From Almgren-Nerman, *Die ältere Eisenzeit Gotlands*, Fig. 442).
- Fig. 35. Die of bone from the Viking age. Alaug, parish of Vang, county of Hedemarken, Norway. 1/1. (From Jan Petersen in *Oldtiden*, 1914, Pl., Fig. 20).
- Fig. 36. Part of a wooden backgammon board. Vimose Funen, Denmark. 1/6. (From Engelhardt, *Vimose Fundet*, Copenhagen, 1869, Pl. III., Fig. 9).
- Fig. 37. Glass vessel. Sojvide, parish of Sjonhem, Gotland, Sweden. 1/2. (From Almgren-Nerman, *Die ältere Eisenzeit Gotlands*, Fig. 277).
- Fig. 38. Glass vessel. Vallstenarum, parish of Vallstena, Gotland, Sweden. 1/2. (From Almgren-Nerman, *Die ältere Eisenzeit Gotlands*, Fig. 452).

- Fig. 39. Silver beaker, partly gilded. One of the Jellinge mounds, Jutland. 1/1. (From Kornerup, *Kongehøiene i Jellinge*, Copenhagen, 1875, Pl. XIII., Fig. 1).
- Fig. 40. Silver bowl, partly gilded; ornamented; with section. Lilla Valla, parish of Rute, Gotland, Sweden. 1/2. (From Montelius, *Kulturgeschichte Schwedens*, Leipzig, 1906, p. 289, Fig. 457).
- Fig. 41. Finger-ring of gold, with cornelian enchased. Hög sen, parish of Torsby, Vestergötland. 1/1. (From Nerman in *En Bergsbok tillägnad Carl Sahlin*, Stockholm, 1921, p. 158, Fig. 1).
- Fig. 42. Brooch of gilded silver, with garnets set in gold-latten. Hällan, parish of Jättendal, Helsingland, Sweden. 1/1. (From Nerman in *En Bergsbok*, p. 158, Fig. 2).
- Fig. 43. Sword pommel and part of upper cross-guard; gold and garnets. Stora Sandviken, partish of Sturkö, Blekinge, Sweden. 1/1. (From Nerman in *En Bergsbok*, p. 158, Fig. 3).
- Fig. 44. Brooch of bronze, gilded and silvered, with inlaid garnets. Othemars, parish of Othem, Gotland, Sweden. 1/1. (From Montelius, *Kulturgeschichte Schwedens*, p. 236, Fig. 386).
- Fig. 45. Upper sword guard with pommel, loop and ring, all of bronze, partly gilded and silvered. Bifrons, Kent, England. 1/1. (From Godfrey-Faussett in *Archæologia Cantiana*, X., p. 312 with Pl.).
- Fig. 46. Upper guard and pommel, loop and ring; gilded silver and gilded bronze. Endregårda, parish of Endre, Gotland, Sweden. 1/1. Statens Historiska Museum, Stockholm, No. 484 : 36.
- Fig. 47. Ring-sword; the hilt of gilded silver and gilded bronze, with garnets in gold-latten. Vallstenarum, parish of Vallstena, Gotland, Sweden. 2/3. (From Hildebrand, B. E. and H., *Teckningar ur Svenska Statens Historiska Museum*, III., p. 8, Fig. 26a).
- Fig. 48. Part of damascened sword blade. Raftötången, parish of Tanum, Bohuslän, Sweden. 1/1. (From Montelius-Ekhoff, *Bohuslänska fornsaker*, Stockholm, 1874ff., p. 159, Fig. 120).
- Fig. 49. Cross-guard of bronze. Skåne or Halland, Sweden. 1/1. Statens Historiska Museum, Stockholm, No. 2110.

- Fig. 50. Plan of the so-called Gullborg, parish of Tingstad, Östergötland, Sweden. (From Schnittger in *Opuscula archæologica Oscari Montelio dicata*, Stockholm, 1913, p. 336, Fig. 1).
- Fig. 51. Bronze edging of a shield or scabbard. Grave XII. Vendel, Uppland, Sweden. 1/1. (From Stolpe and Arne, *Graffältet vid Vendel*, Pl. XXXIX, Fig. 20).
- Fig. 52. Shield boss of iron with studs, mountings and edging of gilded bronze. Grave XII. Vendel, Uppland, Sweden. 1/2. (From Stolpe and Arne, *Graffältet vid Vendel*, Pl. XXXIII., Fig. 1, 2).
- Fig. 53. Shield boss of iron with studs, mountings and edging of gilded bronze. Same grave as Fig. 47. 1/2. (From *Teckningar*, III., p. 8, Fig. 37).
- Fig. 54. Bridle; iron and bronze, partly gilded. Same grave as Fig. 47. 1/2. (From *Teckningar*, III., p. 8, Fig. 27).
- Fig. 55, 56. Mountings of strappings; gilded bronze. Same grave as Fig. 47. 1/1. (From *Teckningar*, III., p. 9, Fig. 28, 31).
- Fig. 57. Reconstruction of bridle with strappings; iron and gilded bronze with enamel. Grave III. Vendel, Uppland, Sweden. (From Stolpe and Arne, *Graffältet vid Vendel*, Pl. XII., Fig. 2).
- Fig. 58, 59. Details of Fig. 57. 1/2 and 1/1. (From Stolpe and Arne, *Graffältet vid Vendel*, Pl. XIII., Fig. 1, 4).
- Fig. 60. Sword with gilded silver guards and the tang wound round with gold thread. Dybeck, parish of Ö. Vemmenhög, Skåne, Sweden. 1/2. (From Montelius, *Kulturgeschichte Schwedens*, p. 263, Fig. 424).
- Fig. 61. Helmet of iron, with mountings of bronze, partly gilded. Grave XIV. Vendel, Uppland, Sweden. 1/2. (From Stolpe and Arne, *Graffältet vid Vendel*, Pl. XLI., Fig. 1).

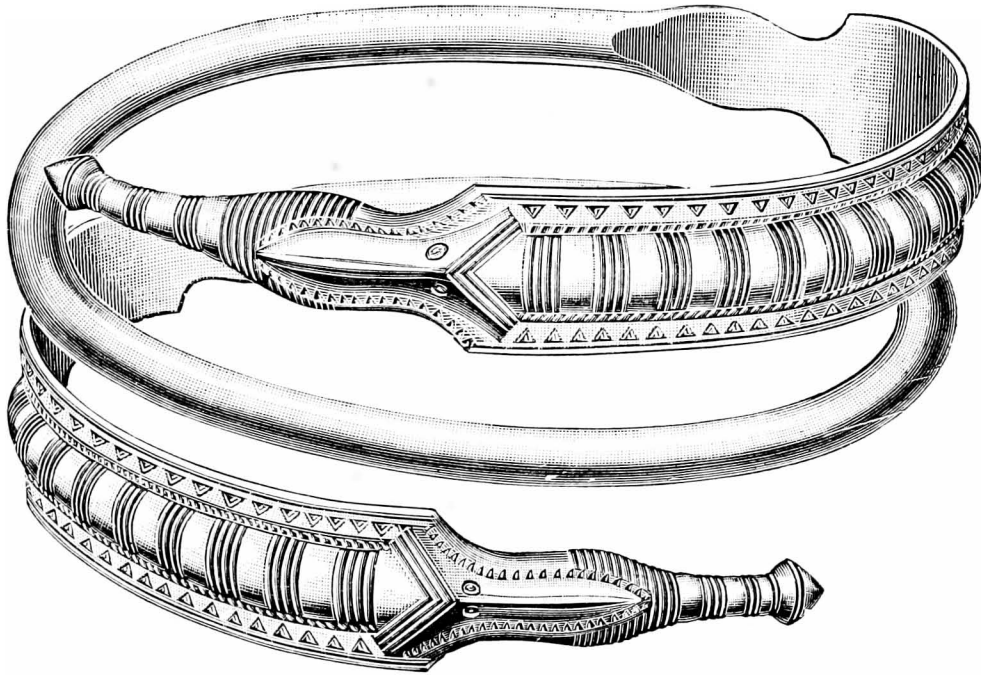


Fig. 1. 1/1.

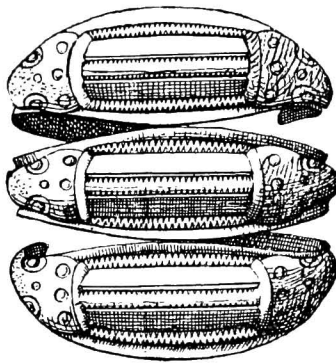


Fig. 2. 1/1.

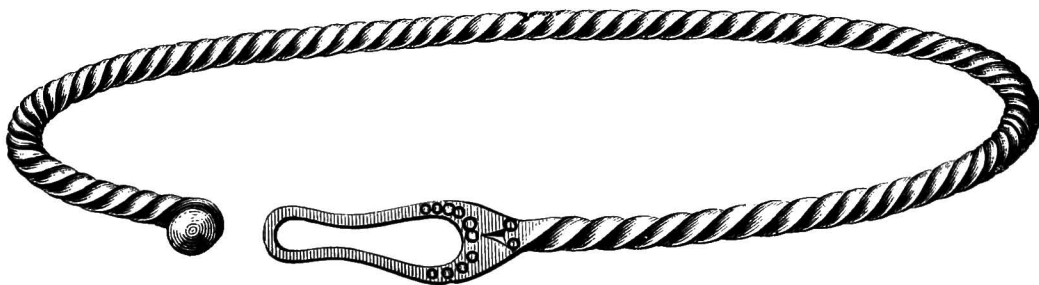


Fig. 3. 2/3.



Fig. 4. 1/1.



Fig. 5. 1/1.



Fig. 6. 1/2.

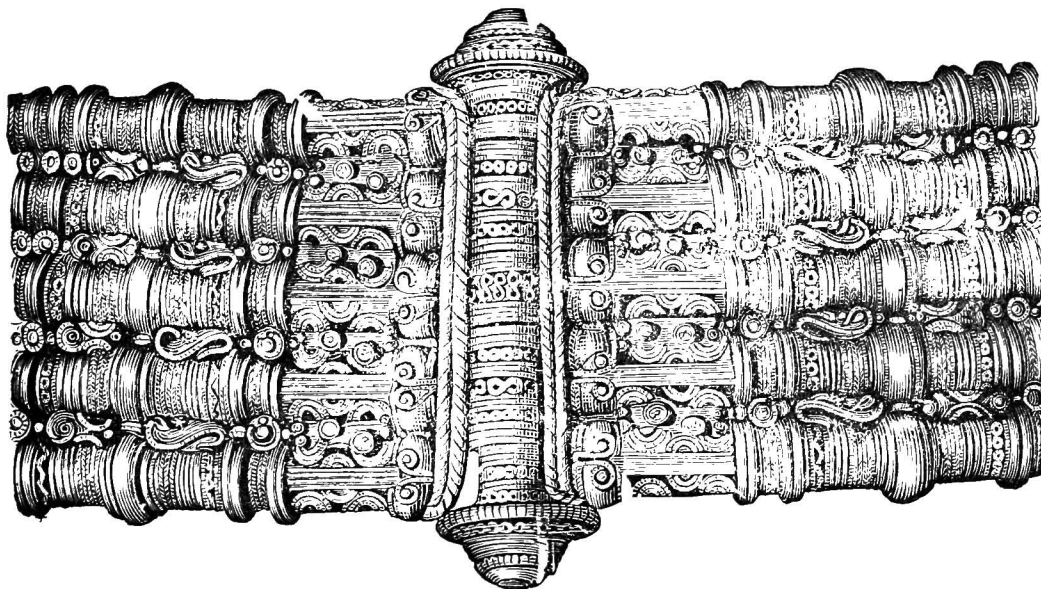


Fig. 7. 1/1.

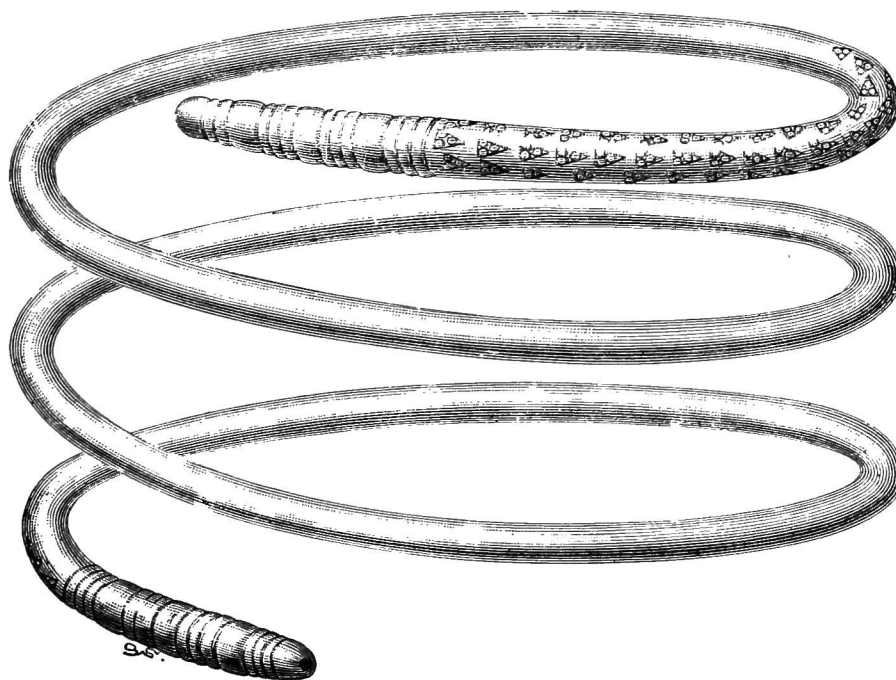


Fig. 8. 1/1.

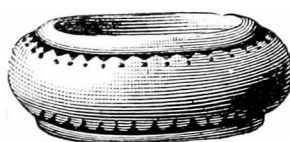


Fig. 9. 1/1.

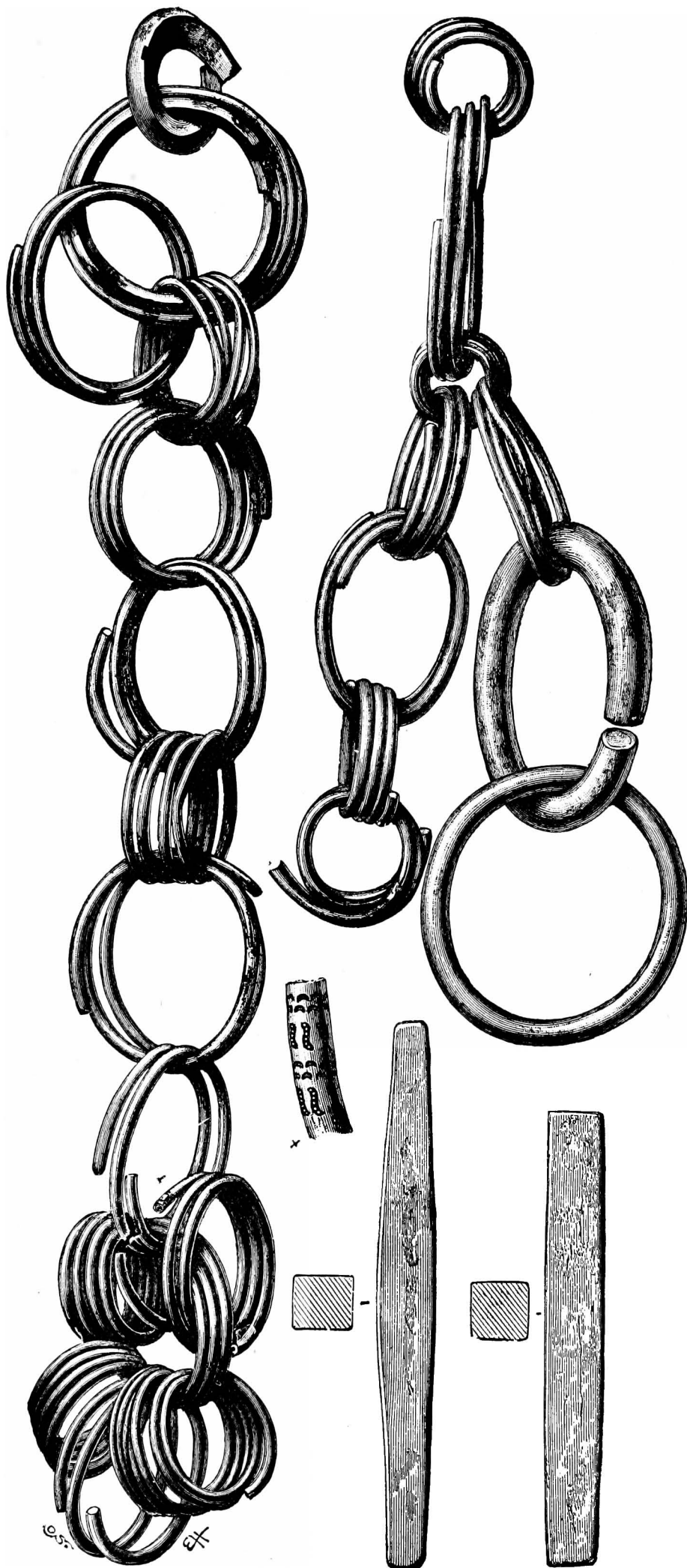


Fig. 10. 1/3.



Fig. 11. 1/3.

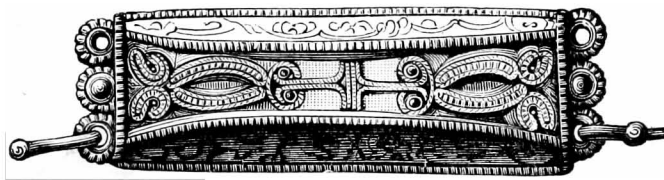


Fig. 12. 1/1.

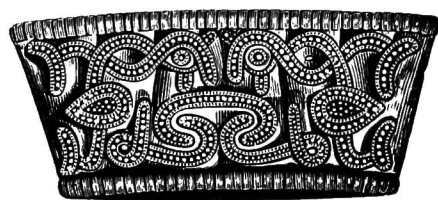


Fig. 13. 1/1.

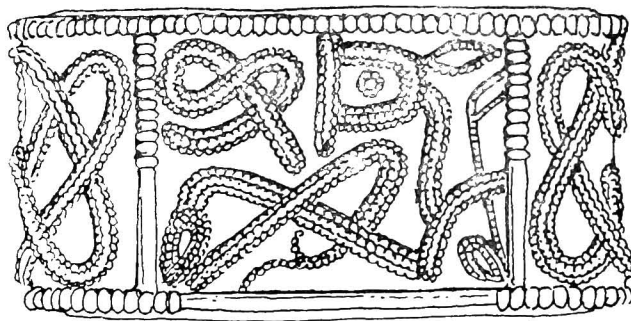
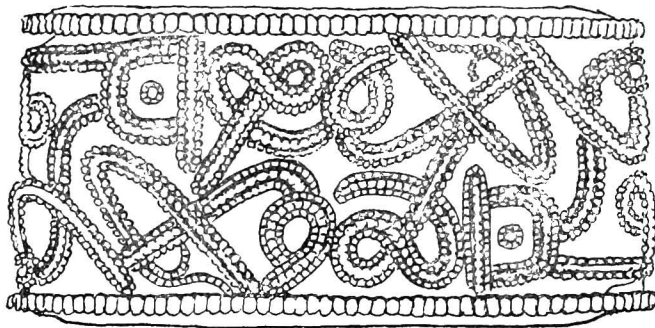


Fig. 14 1/1.



Fig. 15. 1/1.

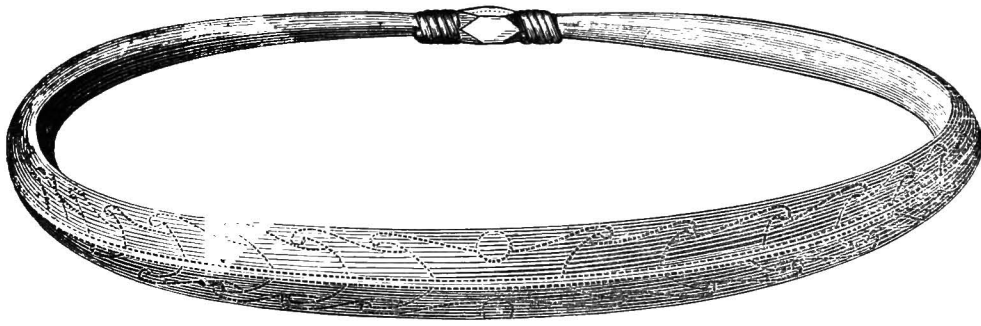


Fig. 16. 1/1.



Fig. 17. 1/1.



Fig. 18. 2/3.



Fig. 19. 1/1.

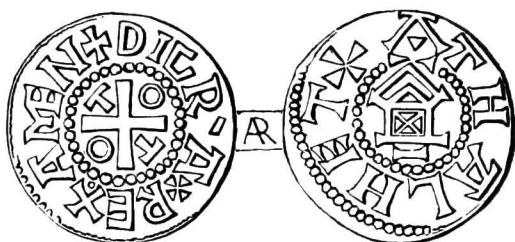


Fig. 20. 1/1.



Fig. 21. 1/1.

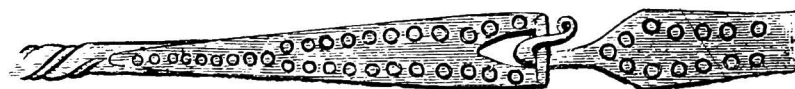


Fig. 22. 1/2.



Fig. 23. 2/3.



Fig. 24. 1/1.

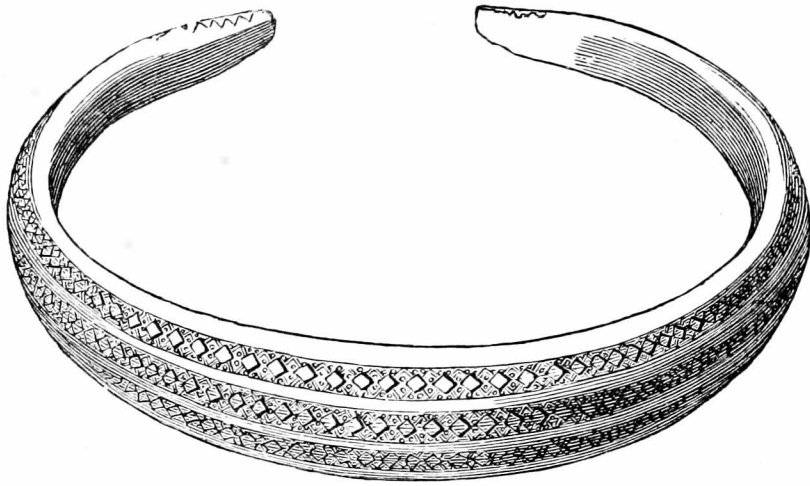


Fig. 25. 1/1.

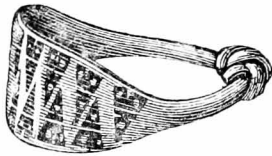


Fig. 26. 1/1.



Fig. 27. 1/1.

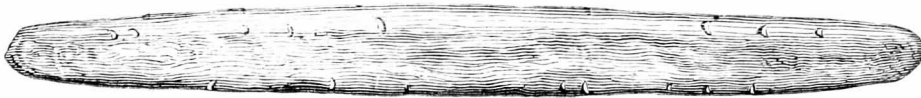


Fig. 28. 2-3.

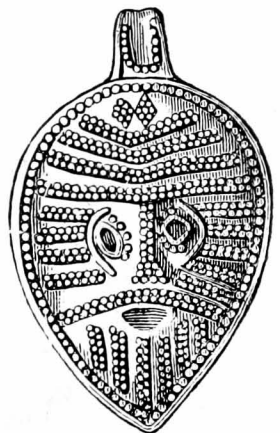


Fig. 29. 1/1.



Fig. 30. $\times 1/2$.

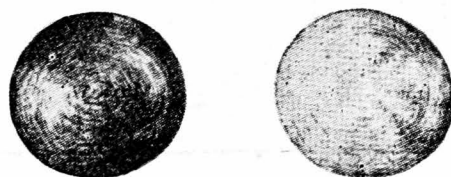


Fig. 31. 1/1.

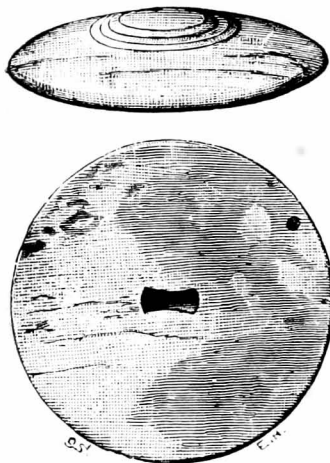


Fig. 32. 1/1.

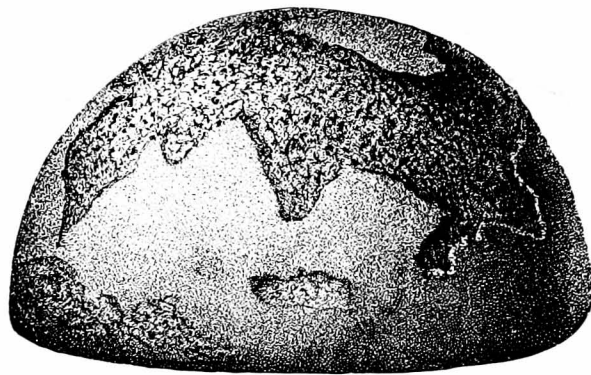


Fig. 33. 1/1.

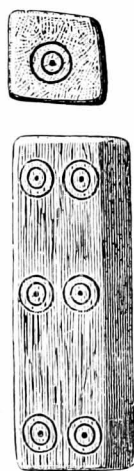


Fig. 34. 1/1.

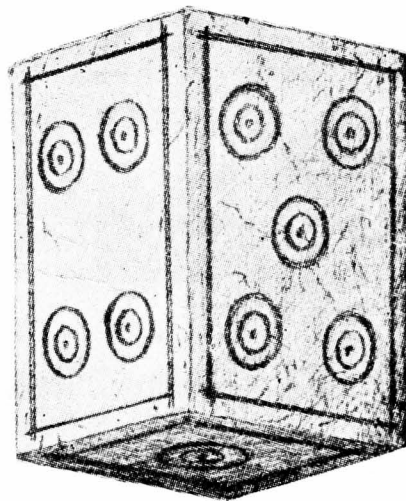


Fig. 35. 1/1.

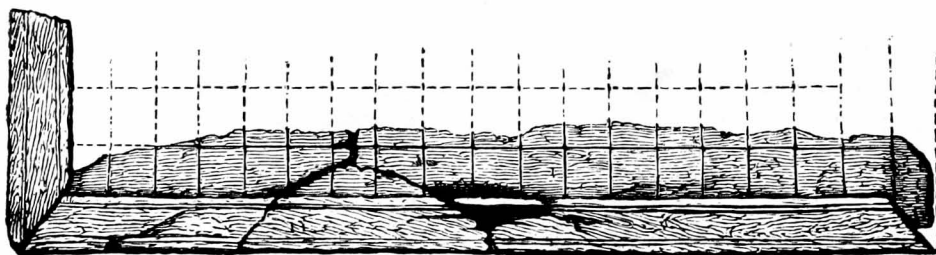


Fig. 36. 1/6.

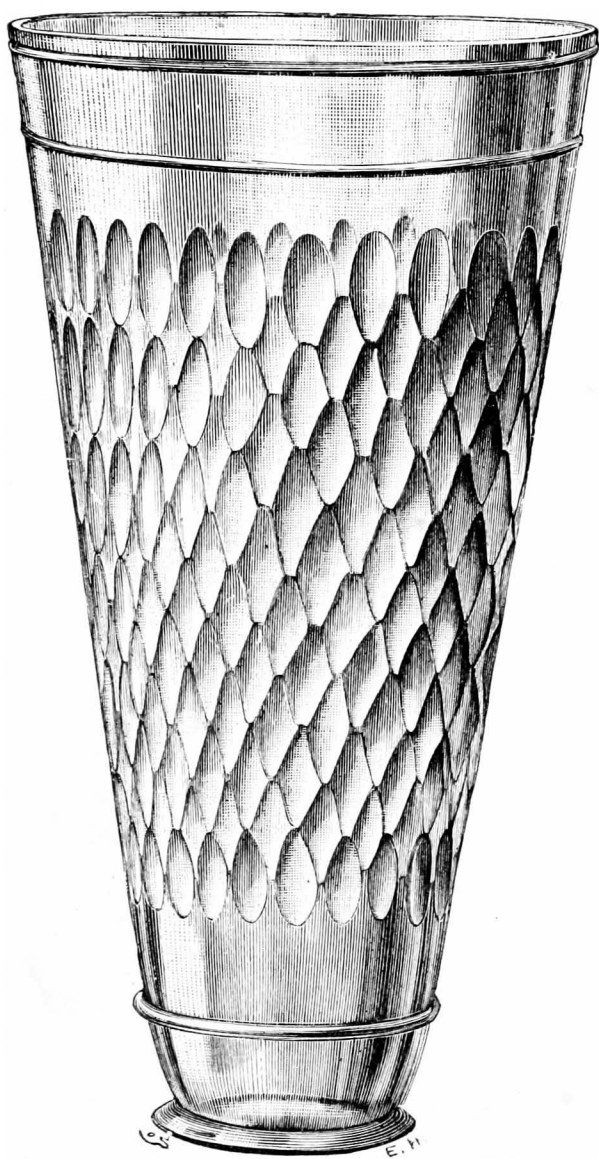


Fig. 37. 1/2.



Fig. 38. 1/2.



Fig. 39. 1/1.

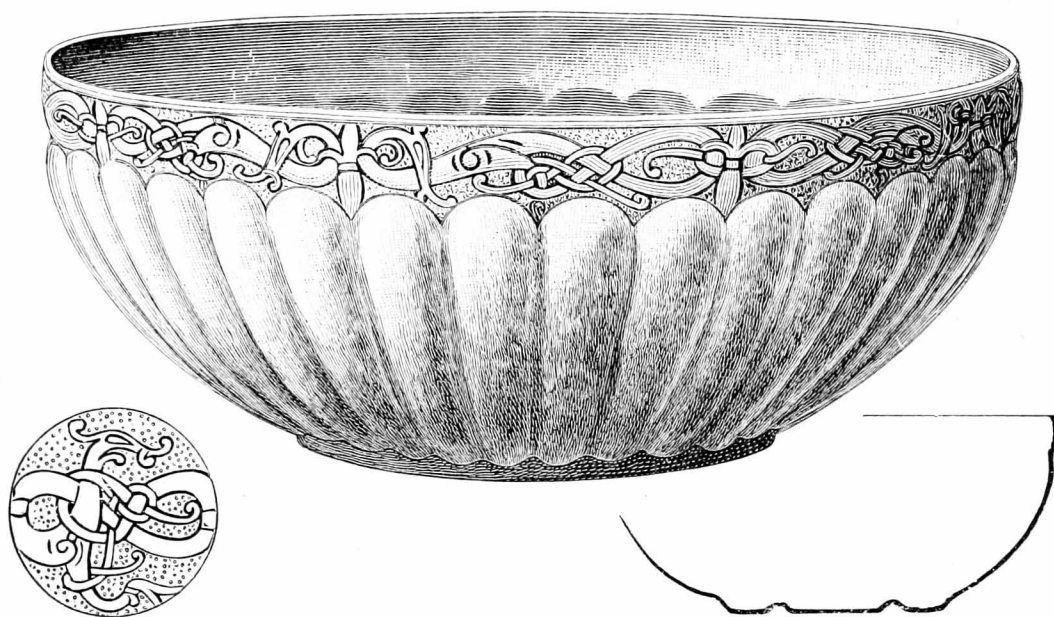


Fig. 40. 1/2.

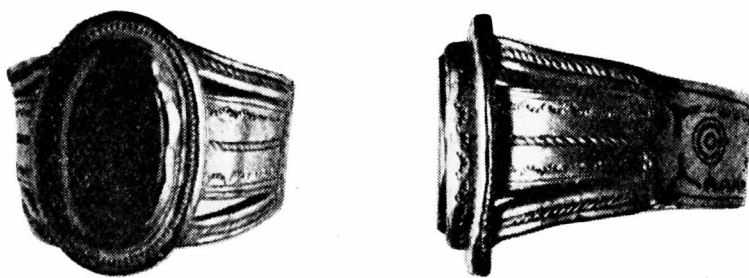


Fig. 41. 1/1.



Fig. 42. 1/1.

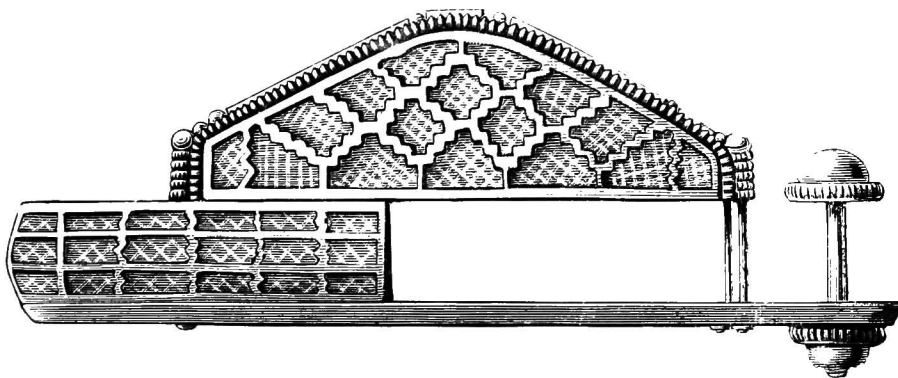


Fig. 43 1/1.



Fig. 44. 1/1.

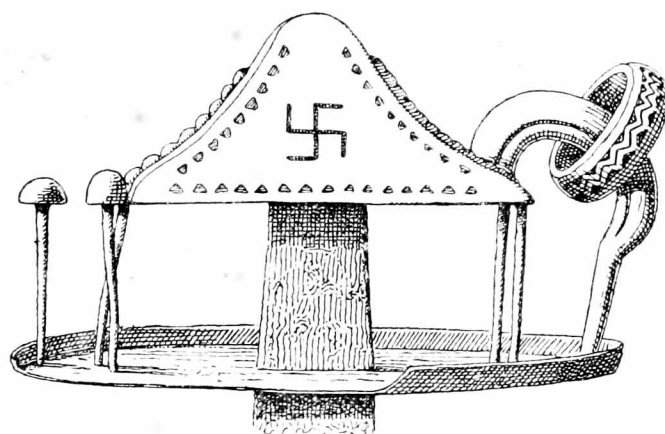


Fig. 45. 1/1.

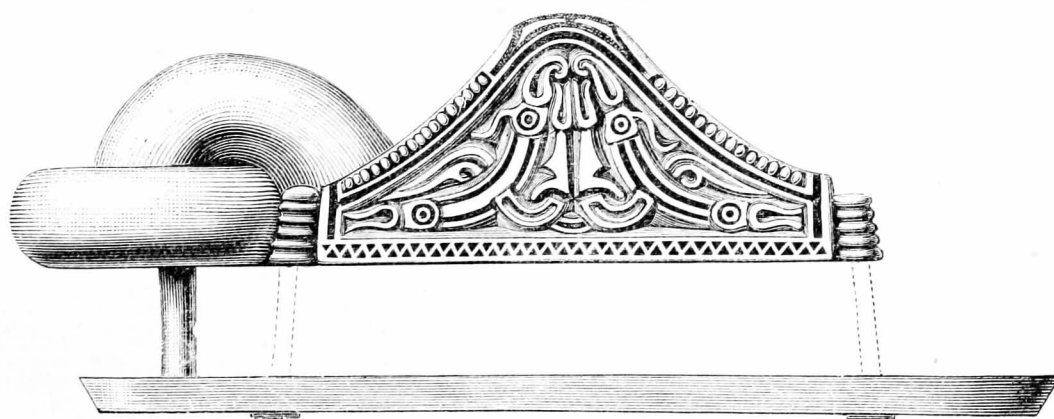


Fig. 46. 1/1.

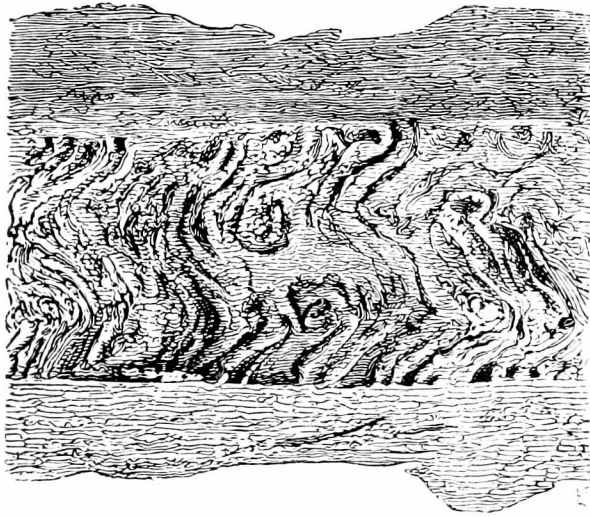


Fig. 48. 1/1.

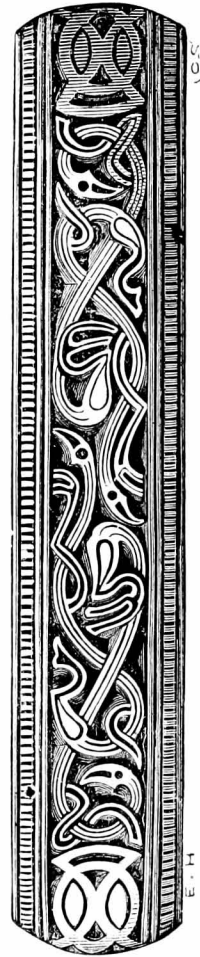


Fig. 49. 1/1.

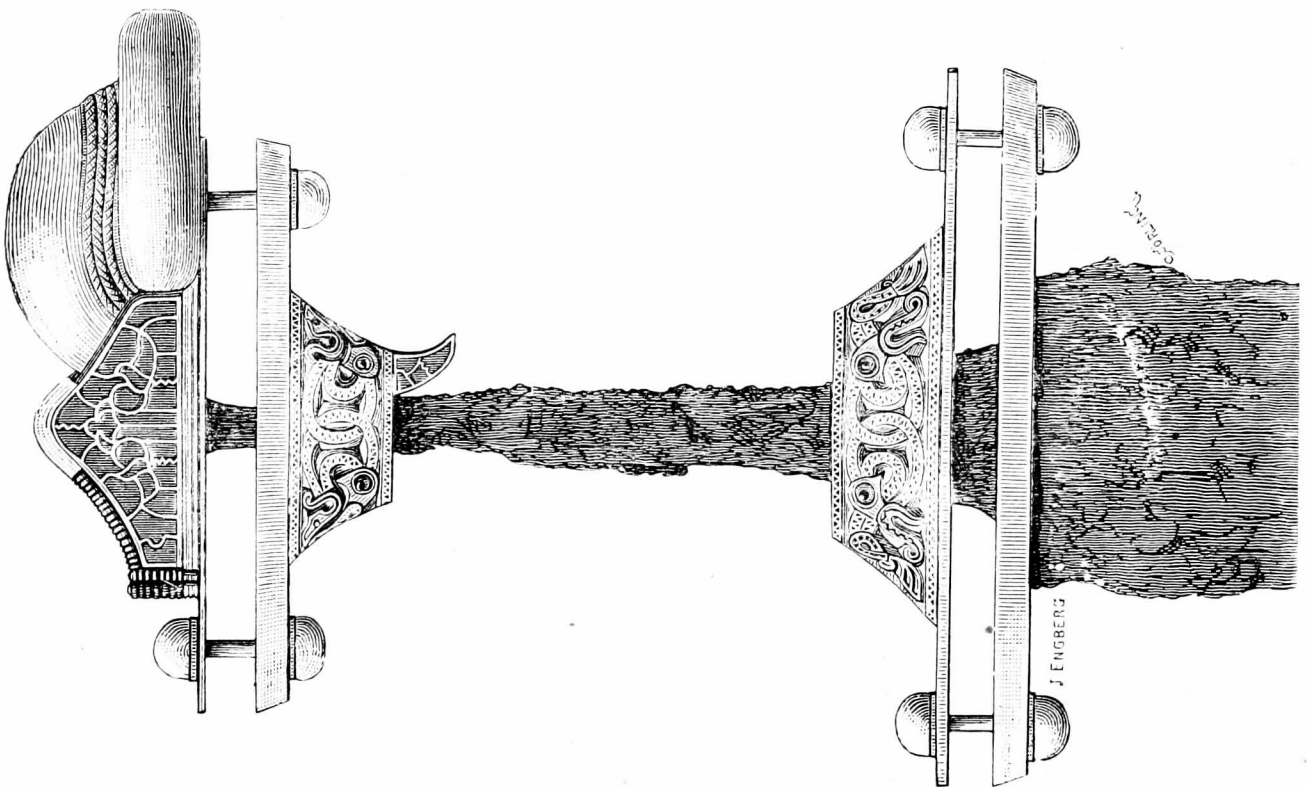


Fig. 47. 2/3.



Fig. 50.

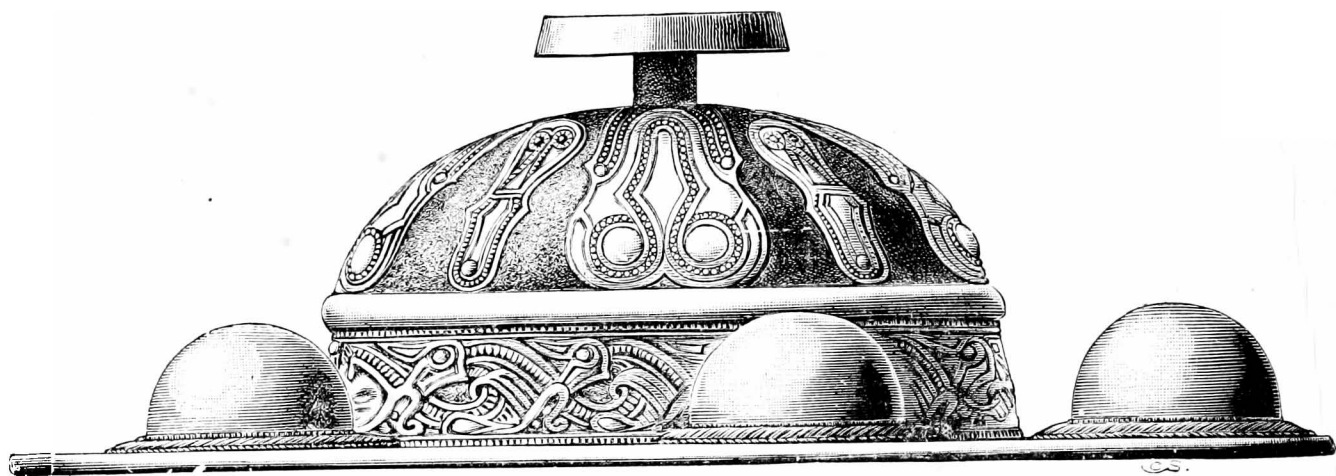


Fig. 51. 1/1.

Fig. 52. 1/2.



Fig. 53. 1/2.

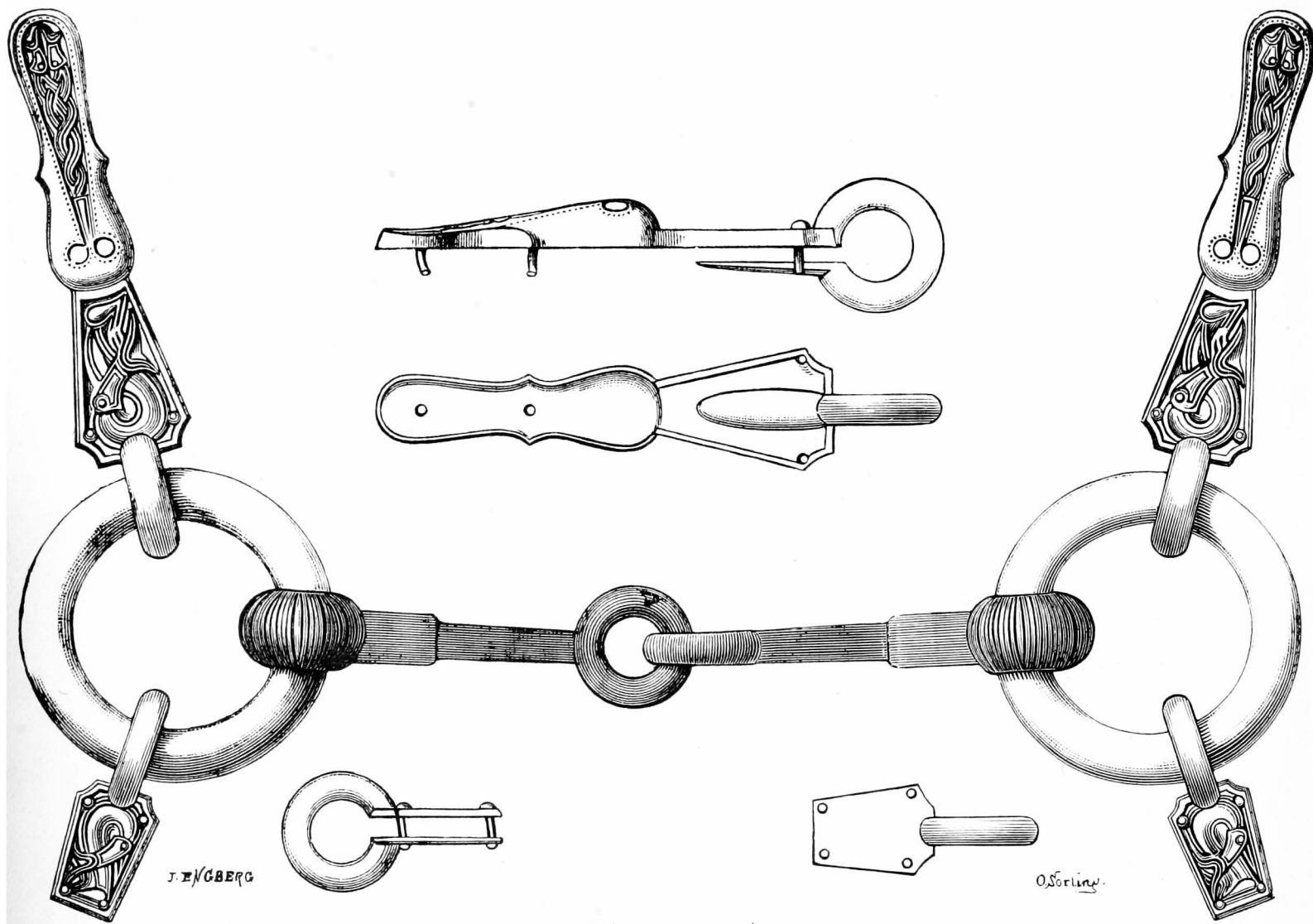


Fig. 54. 1/2.

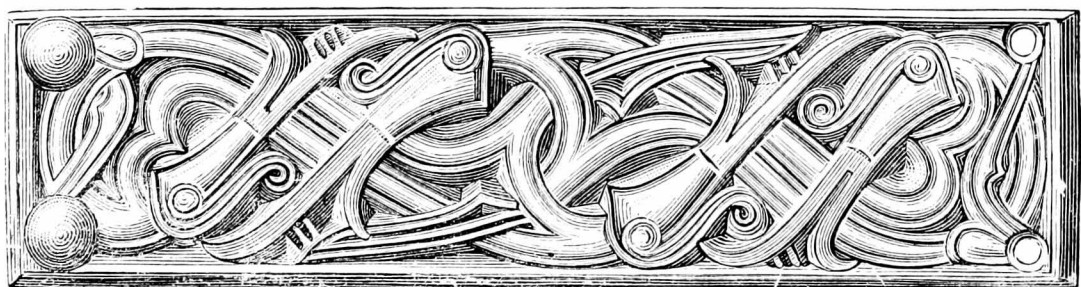


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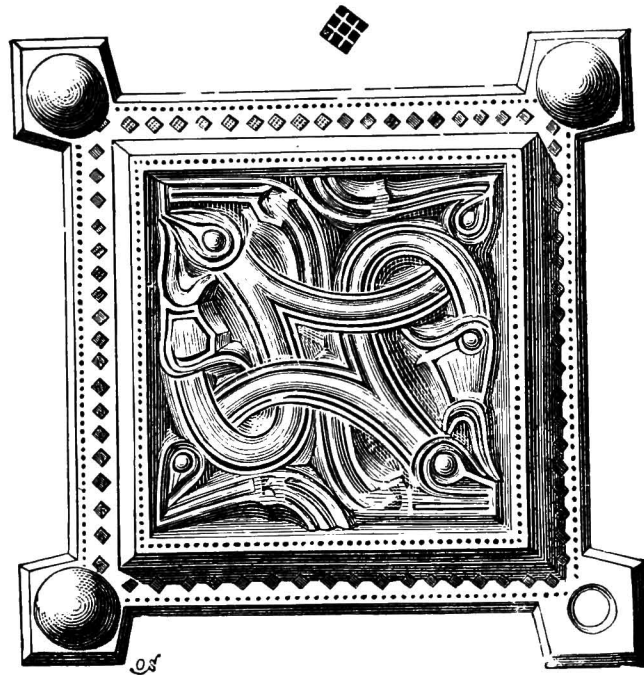


Fig. 56. 1/1.



Fig. 57.

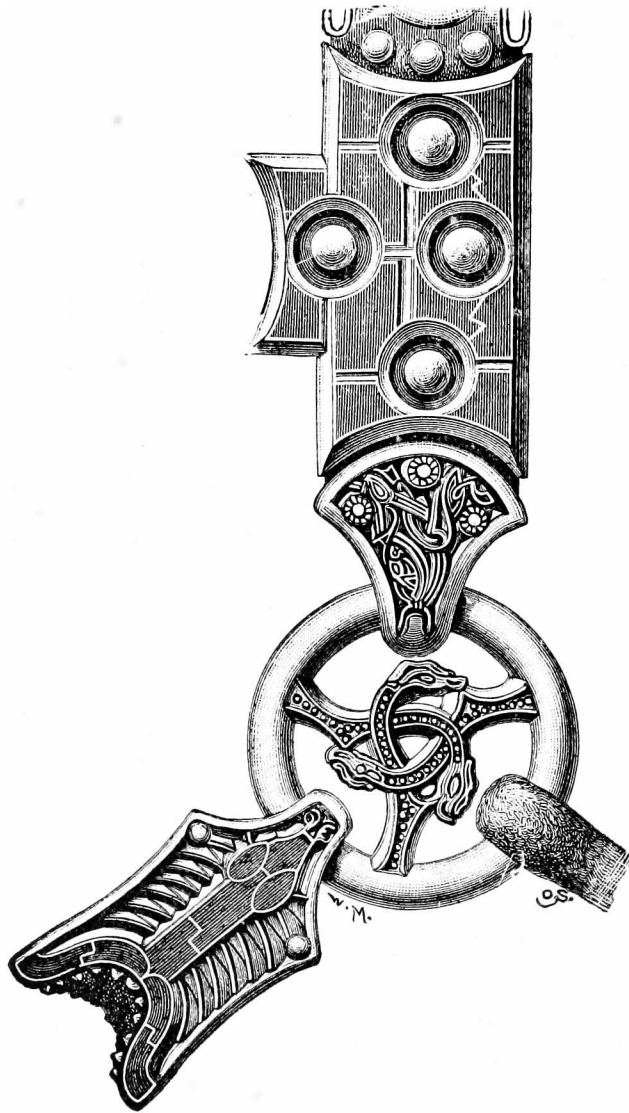


Fig. 58. 1/2.

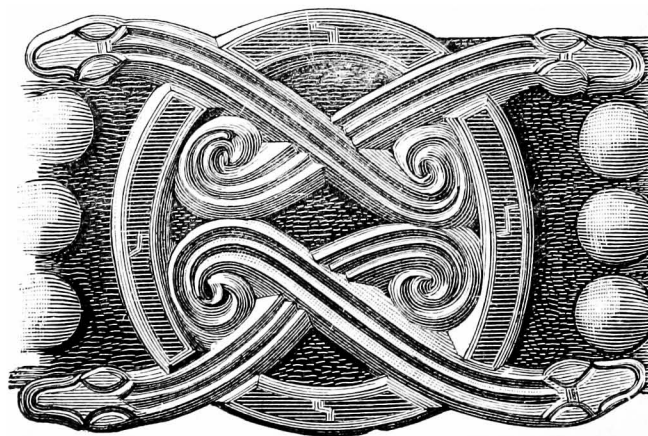


Fig. 59. 1/1.

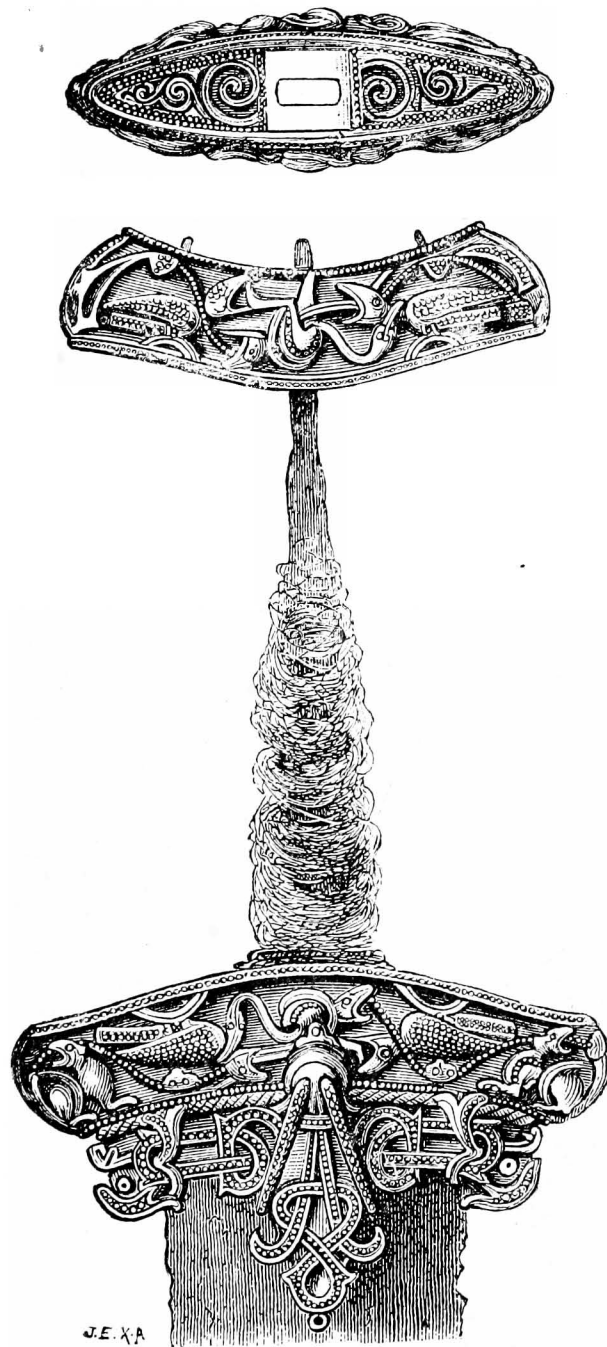


Fig. 60. 1/2.

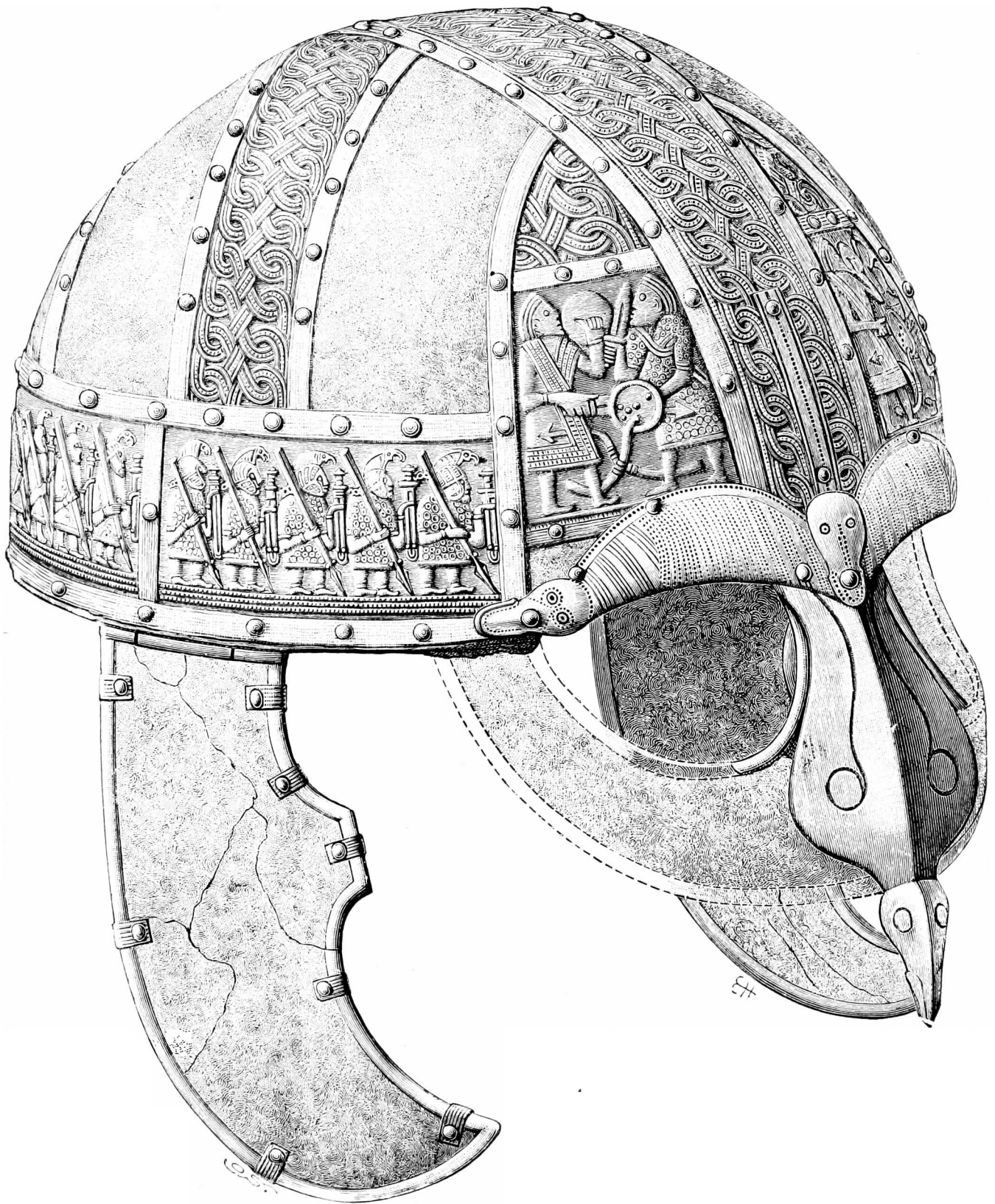


Fig. 61. 1/2.