

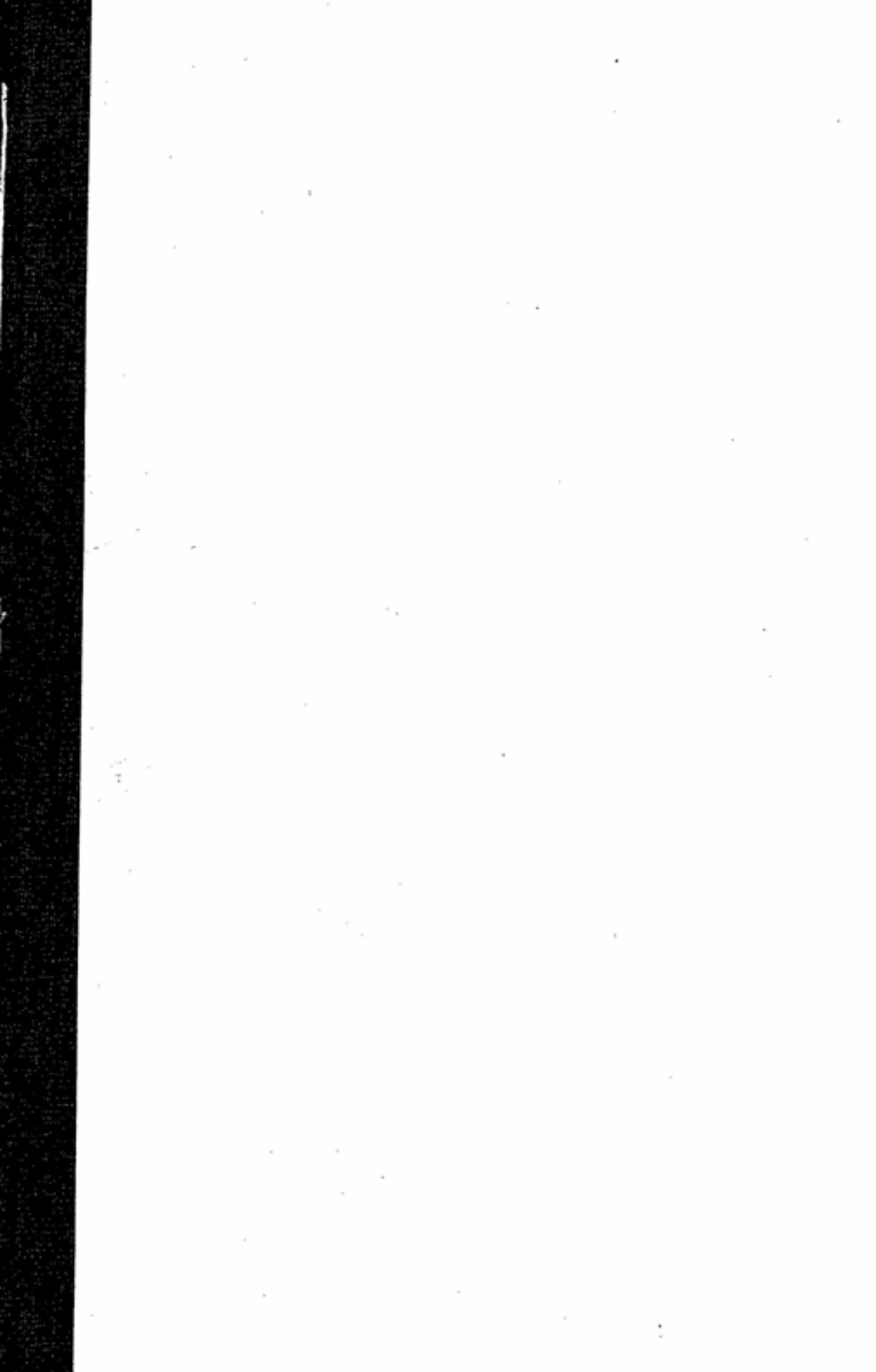
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Page 57, line 12, *after* "quatrefoils" *add* or cinqfoils.

Page 96, line 6, *for* "about 200 A.D." *read* 200 A.C.

Page 191, line 5 from foot of the page, *for* "point" *read* part.

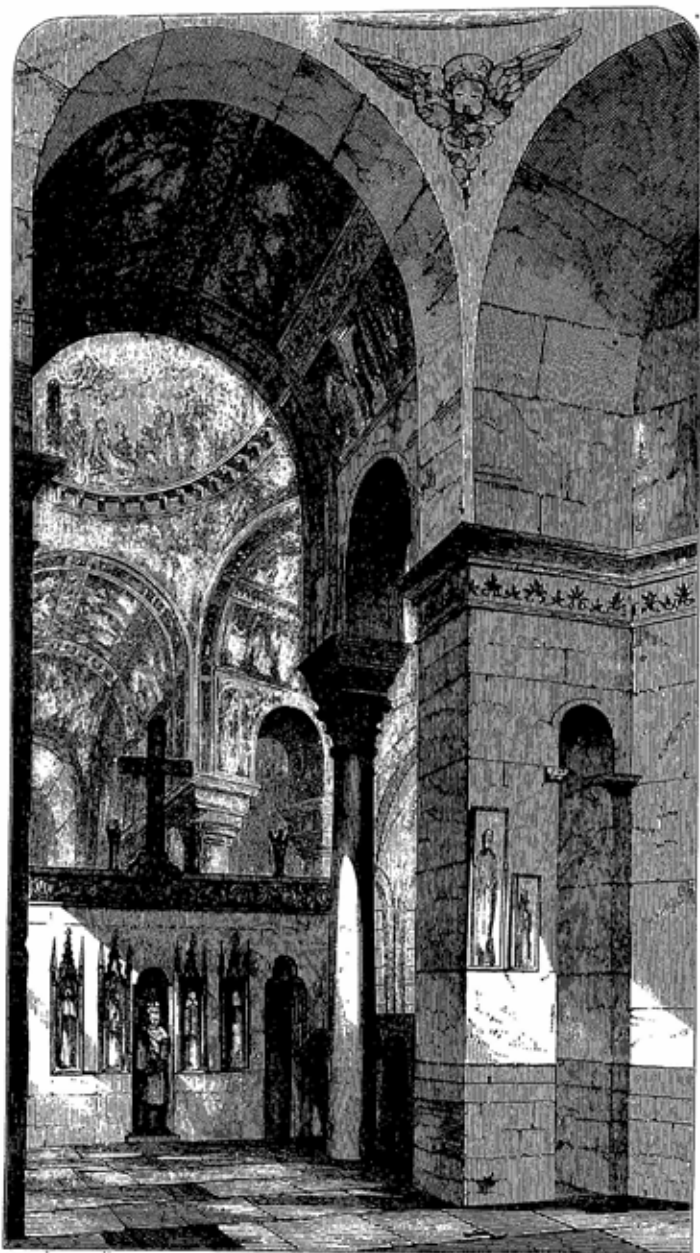
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Church at the foot of Lycobettis, near Athens.
From a drawing by Miss Petit.

The Archaeological Journal.

MARCH, 1866.

REMARKS ON MEDIEVAL ARCHITECTURE IN THE EAST.

By the Rev. JOHN LOUIS PETIT, M.A., F.S.A.*

A SHORT tour in the East, even if it comprises but a few of the places and objects usually visited by travellers, and is not extended beyond the regular beaten track, may yet, I think, enable us to form general ideas, not very far from correct. And I will at once premise, that the remarks I am about to make are the result of a very limited sphere of observation; that I have only visited buildings to which any traveller may have easy access, and not a very great number of these; and in all cases my examination has been of a very cursory nature. I say this to prevent any general observations I may make from being taken at more than their worth.

I intend in my present observations to notice the points of difference between western and eastern mediæval architecture, and hope on a future occasion to advert to their points of resemblance.

In speaking of eastern architecture I shall not consider myself as confined exclusively to Mahometan architecture; for, although the spread of the Mahometan religion must have affected the style, I question if it made it essentially different from what it would have been had such religion never been introduced. Perhaps we may attribute to it the prevalence of geometrical patterns in surface ornament; and that graceful feature, the minaret, owes its existence to the requirements of Mahometanism; but on the whole I am inclined to look at the Mahometan architecture of the East

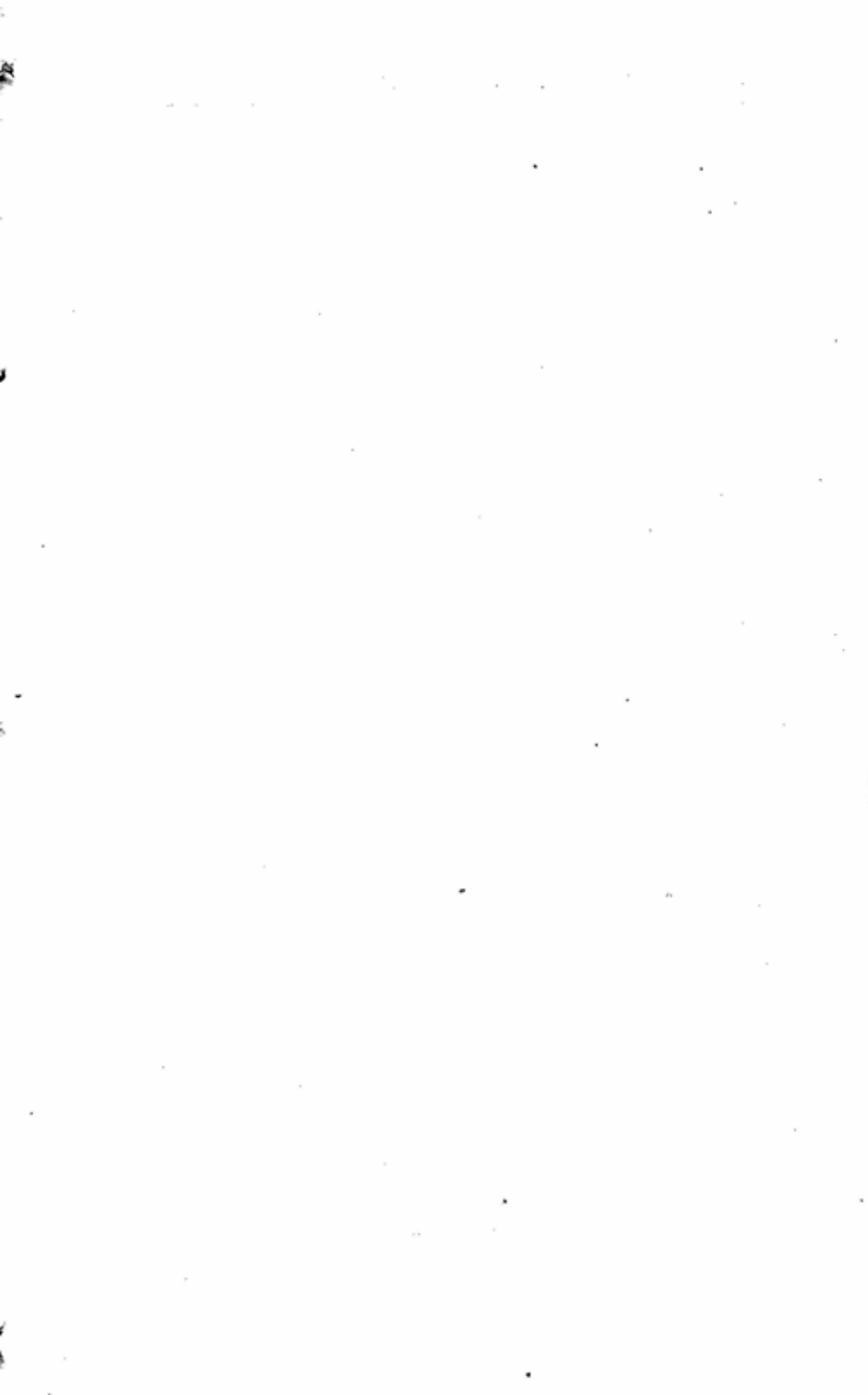
* The Central Committee acknowledge with gratification the renewed kindness and liberality of the author in presenting the numerous illustrations of this memoir, chiefly executed from his own drawings.

rather as a phase of the general Oriental style, derived from or related to the Byzantine, than as a separate style in itself.

We cannot but be struck with the fact, that during the period of the development of church architecture, and its maturity, in Western Europe, the dome was very rarely exhibited as an external feature. Where it was employed as a roof to part of the church internally (a practice common in Romanesque work, but much less so in the more advanced Gothic), it was generally, if not universally, concealed, altogether, or in part; sometimes by a square tower, sometimes an octagon, having a timber roof, covered with tiles, slates, or lead. Even in Aquitaine, where many churches are altogether roofed with domes, the external appearance of the building does not differ in any way from those which have vaulted or timber roofs; we know nothing of their construction till we see the interior. Now in the East the dome shows itself externally, and in such a manner as to be the predominant feature. Sometimes indeed it is only plaster, but in many cases it is of hard brick, covered with cement, and beautifully ornamented: many such, belonging to ruined or deserted mosques, are still perfect. They are evidently designed with great care, and are extremely graceful and elegant in their form.

But it has also struck me that a curvilinear or polygonal ground plan is much more rare and exceptional in the East than the West; and although the European round churches may be derived from the Church of the Sepulchre at Jerusalem, I suspect that neither the church which occupied the site of the present rotunda enclosing the sepulchre, nor the mosque of Omar, or dome of the rock, the outer plan of which is octagonal, is by any means a typical form of Eastern architecture. It may be, however, that this prevalence of the rectangular, and rarity of the curvilinear, or polygonal ground plan, is rather Mahometan than Christian, for the church at Bethlehem has apsidal transepts and choir; and the internal apse is to be seen in conventual churches both in Egypt and Syria, though sometimes disguised externally.

Several of the mosques in Cairo have irregularities of plan, which may be attributed to the nature of the site, by which obtuse or acute angles may be introduced, as in the magni-



MEDIAEVAL ARCHITECTURE IN THE EAST.



At Wady Tafa.



On the Nile.

ficient porch of the mosque of Sultan Hassan, which stands obliquely to the rest of the building ; but setting aside such occasional deviations, I think it will be found that the plans in general externally are rectilinear, and present only right angles. I say externally, for the small recess in the wall, showing the direction of Mecca, is, I believe, mostly semi-circular. I should add that the small building over the well, which commonly occupies the centre of the open court of the mosque, is in some cases octagonal.

The tombs of the Mahometans, or rather, I should say, the chapels or coverings over their tombs, seem universally



Near Tangier.

to be square in their plan, and covered with a circular dome. I do not remember to have seen any that were circular in plan, like several in Italy, or polygonal, like that existing in Ravenna. Such square tombs, covered with circular domes, appear at Tangier, all through Egypt and Nubia, about Jerusalem and Damascus, and, I have no doubt, through large tracts of country. They vary in size from six or seven feet square, to structures equal to the largest mosques. Some have no



At Wady Tafa.

more ornament than a limekiln or furnace ; some are enriched with the most intricate and elaborate ornaments ; some are pierced on each of their four sides with arches, round or pointed ; others have only a single entrance.

They may stand alone, or in groups in cemeteries ; they may have chapels or chambers attached to them ; or may form the



Near Assuan.

principal and most conspicuous part of fine mosques ; but all agree in their construction—the square building, covered by a dome resting on pendentives.

Whatever country may claim the invention of the dome, I suppose it would not be easy to point to earlier examples of an established date than some in Europe. But these are supported by substructures of the same plan, or polygonal, resting on the ground, as in the Pantheon, or on arcades or colonnades, taking a ground plan of the same form ; as S. Costanza and S. Stefano, in Rome. I should question whether at the period of these buildings the pendentive was used in Western Europe. I have a sketch of part of the baths of Caracalla, in which a semidome appears over a large arch ; but I cannot ascertain whether the spandrels take the form of pendentives, or the arch is one of double curvature. If I rightly understand a cut given in Mr. Fergusson's chapter on Sassanian architecture, the Romanesque pendentive, or arch thrown over the angle of the square, must have appeared in the East before it was used in Europe, or at least earlier than any known example. The constructive elements of Byzantine architecture must have been in great measure derived from the East ; or why should the Roman style, in its change to the Mediæval, have taken so different a form in the East from that of the West ? The most striking, and the earliest example of the Byzantine pendentive we know (namely, the pendentive formed by part of a dome larger

than that it helps to support), is, I suppose, S. Sophia; though doubtless the experiment must have been previously tried on a smaller scale, and it is possible that some earlier examples still exist.

Though I have nothing new to say on the Byzantine style, it may not be amiss to notice a few specimens, since it may be considered as a connecting link between the Western and Eastern styles; and I shall dwell more upon composition and general effect than on detail, which, as well as pictorial decoration, has been efficiently handled by others.

When I was in Constantinople I visited some of the old churches, now turned into mosques; but I fear that my guide (a Greek) was not at home in their old names, so that I cannot here designate them correctly. It was nearly a week before he found out for me the Theotokos (of which an elevation is given in Mr. Fergusson's chapter on the Byzantine style), having taken me into several other buildings to which he gave that name. The mosque, of which I give a cut, is that evidently which in Mr. Fergusson's chapter (B. x. c. 1) is given as Moné tes Koras; but my guide pointed out to me another old church, or rather group of churches, of similar character, under this



In Constantinople.

name. If he was right, that I have given must be the Pantocrator. Both are groups of three churches, standing side by side, and contiguous. In this group the predominating dome is that of the central church; in the other the southernmost church is the largest and has the highest dome. I believe the whole group forms a single mosque in each case. There is another fine group of three

churches, a little eastward of that of which I have given the sketch. All its churches are crowned with domes, that of the central one being predominant. The Theotokos is a single church with a central dome, and three smaller domes over the narthex or western porch. S. Irene, now the magazine of arms, is a single church, with a large central dome, and one of less height over the nave. Any one of these gives more of a typical form than S. Sophia, though the latter is suggestive of excellent plans for churches. It has been taken as a model for the larger mosques in Constantinople, which consequently differ considerably from those in other parts of the East. The specimen I have given is a fair type of its class. All the domes are adapted to square substructures or areas by means of pendentives; they have internally a circular horizontal section, though externally they exhibit an upright polygonal stage, which partly, but not wholly, disguises the domical form. In Western Europe, as it has been observed, the dome, where it occurs, is entirely concealed. In the Byzantine style it is partially exhibited; in the Mahometan style it is wholly developed. It will be noticed that in some of these domes each face of the polygonal drum terminates in a semicircle, and is thus adapted to a round-headed window. If a hemispherical dome, resting on a cylindrical drum, be cut into faces by vertical planes, it is evident that each will assume this form; and the round-headed windows with which they are pierced need not have any double curvature within, though the domical and cylindrical forms are preserved internally. We also noticed the cylindrical roof, showing itself externally, and the gable adapting itself to its form. It did not strike me as any disfigurement.

The small Byzantine churches in and about Athens may on many accounts be studied more conveniently than those of Constantinople, and perhaps from no others can we better learn the definite characteristics of the style. A sufficient number as yet remain without material alterations, to enable us to classify them in a tolerably simple and intelligible manner.

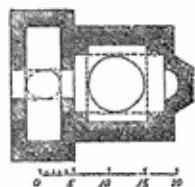
A small church on the ascent of Mount Pentelicus has a central dome, appearing outwardly as an octagon somewhat tapering, with a low pointed roof. This dome is supported by four round arches, deep enough to form barrel vaults to

short limbs corresponding to nave, chancel, and transepts. These latter appear externally on what may be called the



Church on Mount Pentelicus.

clerestory stage, as does also the square base below the octagon. But the ground plan is square, and the parts filling up the angles of the cross, corresponding as it were to aisles, are solid masses of masonry, having only small niches or recesses. The chancel has a projecting apse, semicircular inside, but angular externally, having three faces, two of them springing obliquely from the eastern wall, a common arrangement in Byzantine churches, though the circular form is often preserved externally as well as internally. Westward is the narthex, a porch or ante-chamber which we find in most, if not all, Greek churches. In this case it is roofed with a dome which does not appear externally. I do not suppose any timber is used between the outer tiling and the surface of the domes or vaults. They are probably adapted to each other merely by plaster. Probably many small churches of this design have been built; there are the remains of one at a short distance from Athens on the road towards Mount Pentelicus, which may be described in nearly the same words. This latter specimen, though in ruins, has remains of painting, which seems to have been the only decoration.



Plan of Church on Mount Pentelicus.

But, when the church was somewhat larger, the blocks

which fill up the angles of the cross, and form a square ground-plan, were not left mere solid masses, but were pierced with arches, resting on square substantial piers. This is the case with a small church about seven or eight

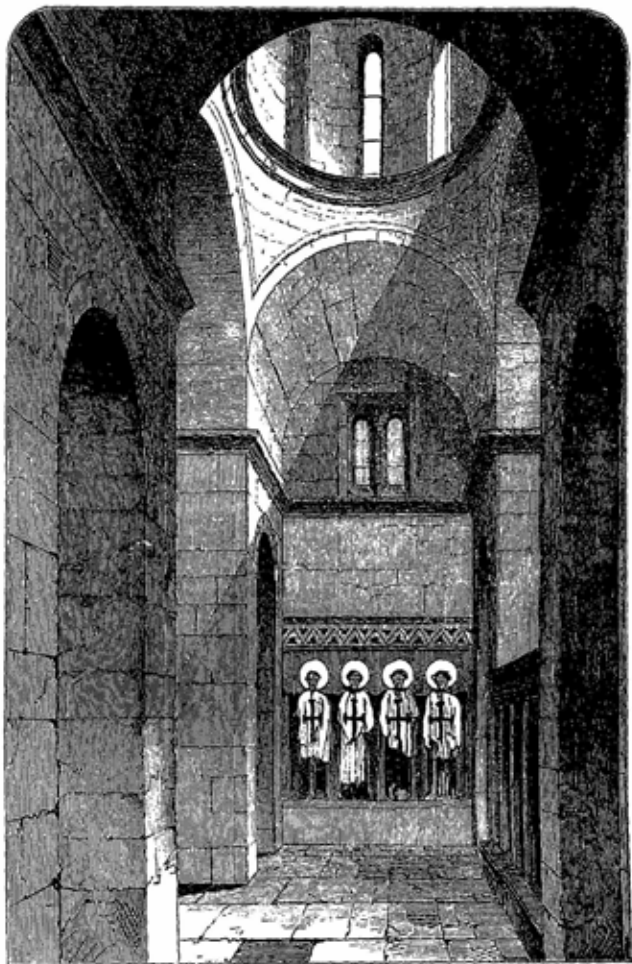


Near Athens.

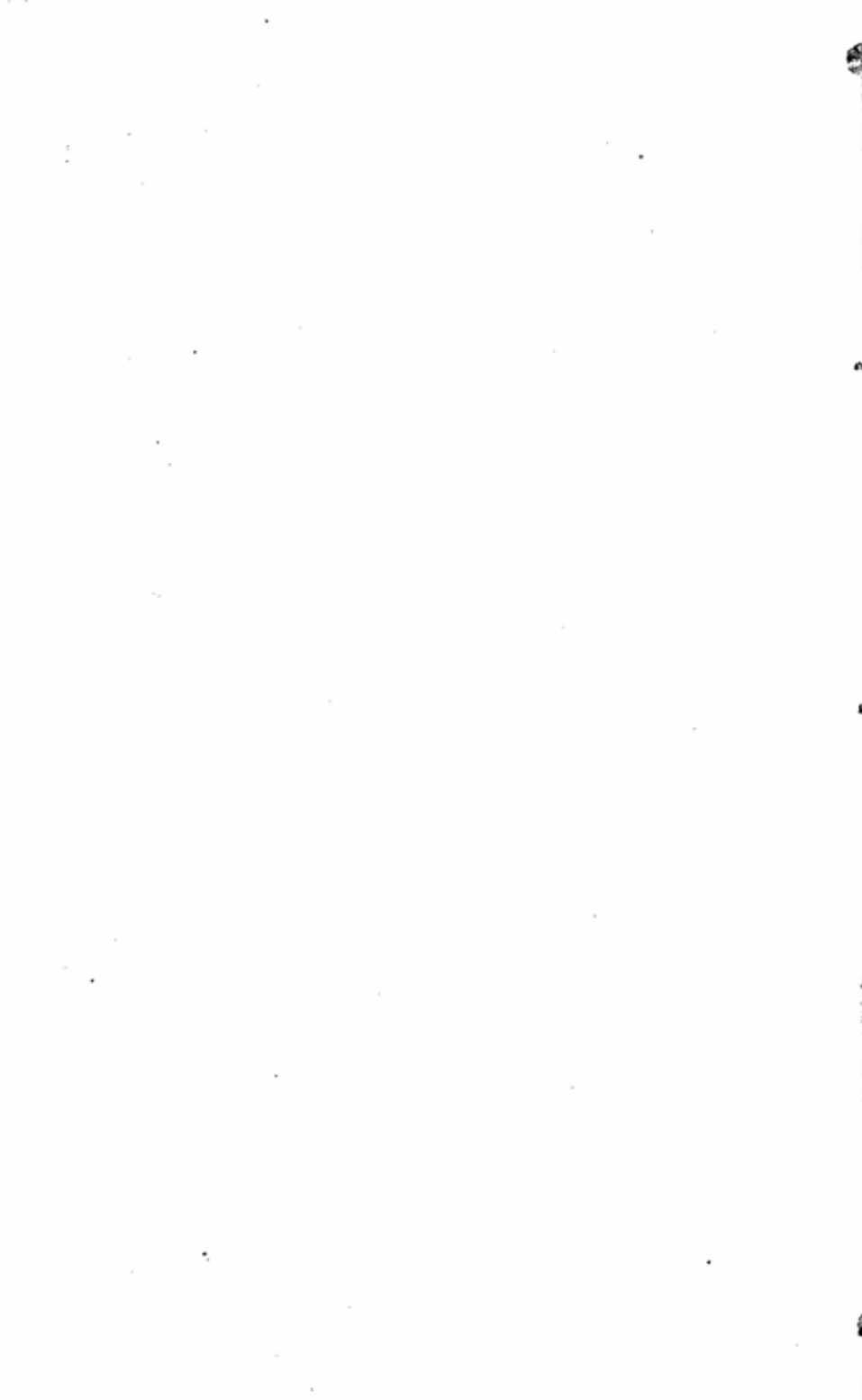
miles north of Athens, of which I give a representation. It will be observed that the limbs of the cross are rather longer in proportion to the tower or octagon than in the small church I have mentioned, and consequently solid masses in the angles would have involved a great waste of material; they are therefore pierced with arches, and form aisles. I should mention that this is a double church, though with only one dome. The plan I have given of a church in Corfu will show this way of filling up the angles at the east end.

But this mass was still further lightened, the solid pier by which its arches were supported being exchanged for a comparatively slender column, often taken from a more ancient building, so that the area of the church is practically increased by the four squares thus added to the cruciform part, the pillars themselves not much breaking the interior.

The western piers in the church in Corfu are so treated as seen in the plan. This church is a very good specimen of Byzantine arrangement, and has not, I think, been materially altered. I give a cut of the east window, and also of that of a small church on an insular rock near the One Gun Battery, as showing some peculiarity of detail. A church at the foot



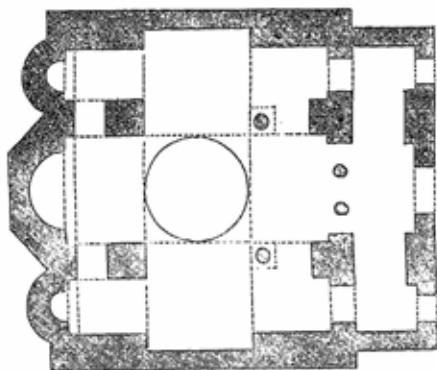
Interior of a Church near Athens.



MEDIEVAL ARCHITECTURE IN THE EAST.



Church in Corfu.



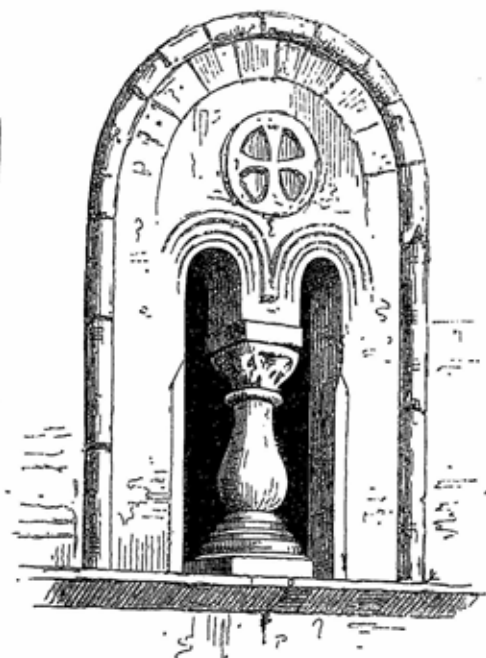
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Ground Plan.

of Lycobettis, near Athens, is a good example, having four not very massive columns under the dome, as will be seen in the woodcut. (See Frontispiece.) A small church just below



East window of the church in Corfu.



East window of church of a Monastery on an island near Corfu.

the Acropolis is so arranged, and there is a good specimen on Mount Hymettus, which is the more remarkable as the columns are not monolithic, but composed of several layers, and yet the building, though deserted and neglected, seems perfectly firm. In the western angles of the church in Corfu the pillars are single pieces of marble. In all these churches we have the central dome attached by Byzantine pendentives to four barrel roofs; the section at the clerestory is cruciform; the ground plan is square (setting aside the apses and narthex), and the portion which fills up the angle varies from a square solid mass to an open structure, roofed by a vault or dome, and resting on a single column. The round arch, if I remember, prevails throughout. It is used in the church of S. Theodore, which belongs to the thirteenth century. The sides of the

MEDIAEVAL ARCHITECTURE IN THE EAST.



Daphni.



Interior view, Daphni.

octagon are frequently, though not universally, finished with the semicircle, like those we have noticed in Constantinople, and in this case the domical shape of the roof is preserved.

The arrangement of a dome or vault rising above four columns, not too massive to preserve classical proportions, has been adopted by modern architects. We find it in the church on Ludgate Hill, London, and in that of All Saints, Northampton. The more massive treatment of the pier is common in churches of the Revival, especially in Italy.

But there is another form, which suggests such compositions as S. Paul's and S. Stephen's, Walbrook, where the central dome has a span equal to the nave and aisles of the church. The church used by the Russians in Athens, is a specimen. An elevation of it is given in Mr. Fergusson's Handbook; but it has been much restored; and the church at Daphni, a few miles from Athens on the road to Eleusis, is more attractive, from the beauty of its situation and the air of antiquity it has been allowed to retain; and, in an architectural point of view, it will answer our purpose quite as well. Internally, the ground-plan (exclusive of narthex and apses) is a square, from which branch off chancel and transepts of the width of the side of a regular octagon, that would be formed within the square by cutting off the angles. These limbs have an arched barrel roof; and arches of the same height and size are thrown obliquely across the angles, so as to form Romanesque pendentives, and are brought down to the level of their springs by concave domical surfaces; over these eight arches a dome rests on Byzantine pendentives, its spring being marked by a bold cornice. The western arch is blocked up, and the entrance into the narthex is by a lower one. The general ground-plan is made square by means of chambers or chapels, which, however, do not open into the church so as to increase its available area. The dome is partially disguised, as to outward appearance, by a polygon of sixteen sides, alternately pierced for windows, and each angle has an engaged shaft; over the north transept is a square belfry. The round arch prevails in the church; there are some triplets on shafts with heavy capitals; the arches being much stilted. The narthex has some pointed arches of an Early English character. There are remains of mosaic painting in the dome. Indeed all buildings of a Byzantine arrangement are specially adapted for mosaics and

mural paintings, owing to their large amount of unbroken surface, and the smallness of the spaces necessarily devoted to architectural ornament.

I will not quit Athens without noticing a little church on the road to the Piræus, which, from its not being domical, I



In Athens.

fancy may be older than those I have mentioned. It has a nave, a central tower, if it can be so called, and a chancel with

an apse. The roofs are round barrel vaults; those of the nave and chancel having the axis longitudinal, that of the tower transverse. The tower has gables facing north and south, and these sides have a much less thickness of wall than those of the nave and chancel (these latter having to act as abutments to vaults), and the surface being flush outside, there is a small indication of transepts internally. A blank pointed arch is also sunk into each wall of the nave; all the other arches are round, and there is no ornament.



Interior of a church at Athens.

The door is square-headed.

There is another church of the same form on the rising ground towards Mount Hymettus; this is a little more enriched, as it has columns, apparently antique, under the

angles formed by the thickening of the walls. Another of this description stands on a low insular rock in one of the bays indenting the coast of Corfu; this has internal piers to support the transverse arch: on the gable of the tower is a small bell-turret. Simple and unpretending as these churches are, I cannot but think that there are localities where their form might be adopted with advantage.

We will now go at once into Mahometan ground, though I shall still have to notice some Christian work. In all the examples we have considered, the central dome, and the square on which it stands, receive much of their support from the abutment of the portions of the building connected with them. In most of the Mahometan mosques of mediæval date, unless they are clearly copied from Christian models, as at Constantinople, the dome owes its support altogether to its square substructure, which rests on the ground, and not on arches, having for their abutment the walls of a cruciform building. The construction is that of the square tombs we have mentioned, which are covered by domes. Indeed the domes of mosques are often built over tombs. The larger tombs in and about Cairo are in fact mosques, or parts of mosques. They may stand at the side, or at an angle, or at the end of a building. It is common for the mosque to have a dome at one end and a minaret at the other, the structure itself being rectangular, like a Christian church. In Cairo, the shape is often very irregular, owing to the nature of the ground. But in the matter of construction, I believe the dome is usually independent of the building attached to its square substructure, even when the latter is pierced with large arches. The walls of the square are consequently of great thickness, considerably greater than the dome, or circular or polygonal drum on which it rests, which gives a tapering or pyramidal appearance to the composition, pleasing to the eye, and suggestive of strength and durability.

The pendentives, in rich buildings, often consist internally of a somewhat complicated series of small arches. I do not think these are always mere disguises or decorations of the simple Byzantine or Romanesque pendentives; what I saw in Cairo appeared, so far as I could judge, to be really constructive, though, of course, designed also with a view to ornament. I regret that I could not succeed in making an intel-

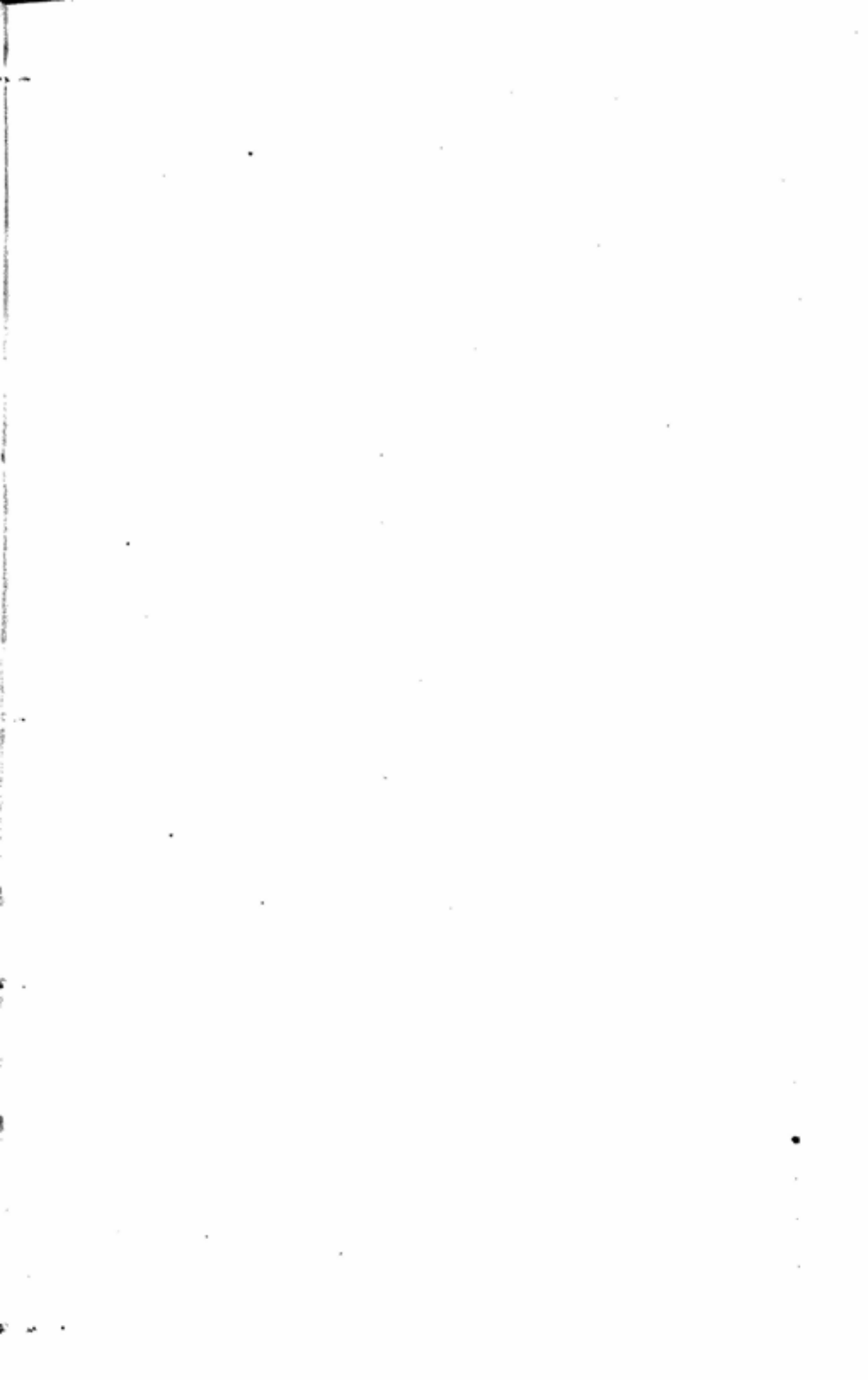
ligible drawing of one (by no means the most intricate) that I attempted to sketch in one of the so-called tombs of the Caliphs. My patience gave way before I could master its arrangement, and I fear, from their position, they are almost inaccessible to photography, which is invaluable in giving the delicate geometric patterns on the outside, as well as the fine tabernacle work under the galleries of the minarets.

The construction of the pendentive is often more definitely indicated externally than in western architecture. The cardinal faces exhibit a kind of truncated gable in steps, which mark the several receding arches or stages of the pendentive within. Sometimes these steps are left plain and square, but sometimes a bold moulding is carried along each stage or edge of the pendentive, which, showing itself at its junction with the cardinal face or gable, gives it something of the form of our Jacobean gables, over which it has this advantage, that the form is not fanciful or unmeaning, but indicates the actual construction. I may remark, however, that the mouldings of the pendentive are more suited to a climate where rain is almost unknown, than to ours. By



Tombs of the Caliphs (so called), Cairo.

these pendentives an octagonal platform is formed, from which rises the circular drum and dome; not occupying a circle of its full diameter, but somewhat smaller, and pierced with windows. In some cases the platform is a polygon of



MEDIEVAL ARCHITECTURE IN THE EAST.



From Tayloun Mosque, Cairo.



Tayloun Mosque, Cairo.

sixteen sides ; two mosques near that of Sultan Hassan are of this description.

A group of narrow windows and circles is often introduced in this gable, giving the idea of Gothic tracery ; but as the material is not reduced to thin mullions and tracery bars, the work is of a more durable nature. The lights are usually round-headed in what appear to be the earlier examples, which, however, run nearly through the fifteenth century. The later arches are pointed, and have something of the Tudor form ; a kind of foliated label, adapting itself to the form of the group, runs round it. The dome is perfectly developed, and often has a very beautiful outline. The example of which I give a cut, is a fair specimen of those about Cairo. I did not see the interior ; I believe that the building is now a powder magazine. It is near the tomb or mosque (now disused, and therefore easily accessible) of Sultan Barkook, which is perhaps the finest of the group. This contains a large court ; at two of the angles of this space are fine spacious domes, flanking a symmetrical front, which has a small cupola in the middle. The front towards the city has two fine minarets. A section of this mosque is given in Mr. Fergusson's Handbook.

There seems no doubt that the pointed arch was used in the East long before it became prevalent in European architecture. But, if the Tayloun Mosque in Cairo was built by a Christian architect,¹ it is probable that it was also employed at that period (ninth century) in Christian architecture ; unless, indeed, the form, and that of the horse-shoe, was adopted as a difference from the Christian style. In Cairo the horse-shoe arch is very graceful ; in Spain it is sometimes rather exaggerated. Much as I am struck with Cordova, I cannot altogether admire some of the forms that its arches assume.

Though mullions and tracery are not used, the pierced screens which are occasionally inserted in the windows have rich and complicated patterns that more than compensate for their deficiency. Coloured glass is frequently introduced in the openings.

The great distinction between Eastern and Western architecture seems to be, in the one, predominance of surface

¹ Fergusson's Handbook of Architecture, vol. 1, p. 389.

over line, in the other, of line over surface. The tendency of the Gothic is to reduce a building to a great framework of bars, ribs, and buttresses, the flat walls being mere screens, in no way necessary to construction. This principle is almost carried to excess in some specimens of the Flamboyant and Perpendicular. The Eastern, on the contrary, presents us with larger unbroken masses, rarely diversified with buttresses, and not much dependent for effect upon openings. Though the fine mosque of Sultan Hassan, the grandest building in Cairo, is not without windows, they really tell for very little; the whole has almost the effect of the vast blank walls of the old Egyptian temples. Its only important opening is its grand lofty doorway, than which it would be difficult to find anything more impressive in the whole range of mediæval architecture. Most of the mosques in Cairo have this feature, and the same general character prevails in all. It is a tall niche or recess, nearly the full height of the building, forming a trefoil arch; the whole being enriched with elaborate shrine-work. The door itself is not higher or larger than convenience requires. I should notice that in Cairo we often see, in domestic architecture, round-headed doors much resembling those of our Norman style, and ornamented with the chevron. They are not, however, deeply recessed, and have no great air of antiquity, though they may be of a mediæval date.

What I have said of the tendency to large unbroken surfaces, rather than to the expression produced by strongly marked lines, does not apply to minarets, which though called into existence by purely Mahometan exigencies, are nevertheless very Gothic in their spirit and character. I may have something to say of these hereafter.

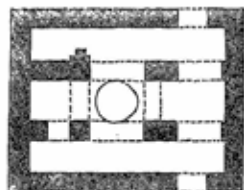
It is because the Mahometan dome is usually independent of any abutment beyond the weight and thickness of its square substructure, that I am inclined to refer to a Christian origin two small buildings in Nubia which are usually pointed to as Sheik's tombs. One is near Ibream, on the eastern side of the Nile, between Derr and Abou Simbel. It stands on rough rocky ground, and could not have had any conventual buildings connected with it; so far the chances are in favour of its being what it is called. It is a very small rectangular building, mostly of unbaked brick, on a

basement of rough stone. In the centre is a dome resting on four arches, of which the eastern and western are of nearly the full span of the square under the dome. The



Shaik's Tomb or Church at Ibroom.

piers are, at present, not connected by arches with the sides of the building, but they possibly may have been. The dome is not in the best condition, and its windows have quite lost their form, and the other roofs (doubtless of a similar material) have perished. The east end is flat, but has had a semidomical roof adapted by Romanesque pendentives. The nave has only one bay, opening into the aisle on each side by an arch. It appears to have been domed. The building is as plain as it can be, and the arches round, consequently it might be of any date. The whole thing is too small and insignificant to attract notice, and most travellers that might happen to stop at the point would examine the neighbouring fortress of Ibream; but I do not regret having given my attention to this little tomb or chapel, whichever it may be. When it had its roofs, the general outline might have been more varied.²



0 5 10 15 20

Plan of Church at Ibroom,
Nubia.

² I should mention that my ground-plans were taken roughly and hastily, and in all probability have many inaccuracies,

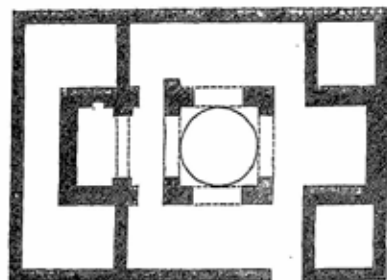
but I hope they are not such as seriously to mislead the reader.

The other specimen is north of Saboua, on the west bank of the Nile. It stands on a steep cliff, rising nearly from the edge of the river. It is very like the building I have already described, but a little larger; and there are remains adjoining it which may have been conventual. It has a central dome resting on wide transverse arches, of unbaked brick. I see in my notes that I have mentioned a piscina, as being in the usual place. I do not recollect its appearance; but if I am right, I suppose



Tomb or Church near Saboua.

that we may conclude this to have been a Christian church. There are remains of several convents along the course of the river, but I did not land to visit them, as those within sight did not appear to possess any remarkable features.

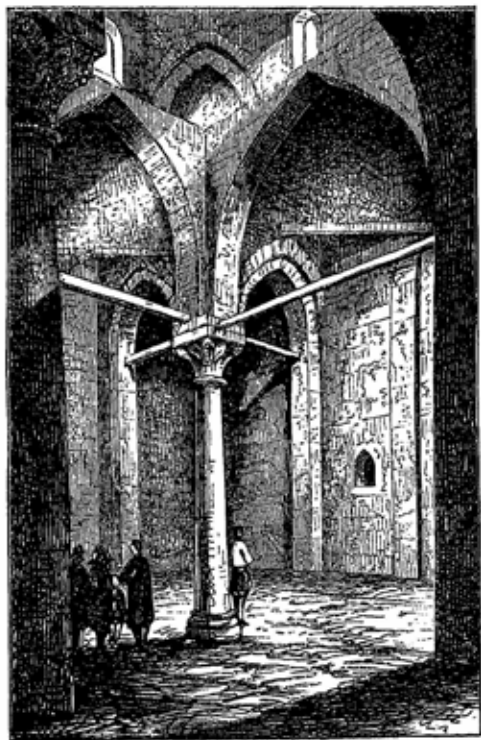


Plan of the above.

Between Thebes and Cairo I saw three convents, of which the churches had been enlarged or rebuilt, with a central dome, surrounded by smaller domes or semidomes. The Coptic convent on Gebel e Tayr has an eastern apse roofed with brick, but its central dome is only of mud, resting on wooden beams. There is some old work in the interior. Another convent near Beni-Souef has a good church with domes, which does not yet seem to have been touched by the hand of the restorer. The interior has much of the Byzantine character, but the pendentives are Romanesque. The arches are pointed. The columns under the dome are of classical proportion, and have rich Corinthianising capitals. Four semidomes abut

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MEDIEVAL ARCHITECTURE IN THE EAST.



Inside of Coptic Convent, Menoude.



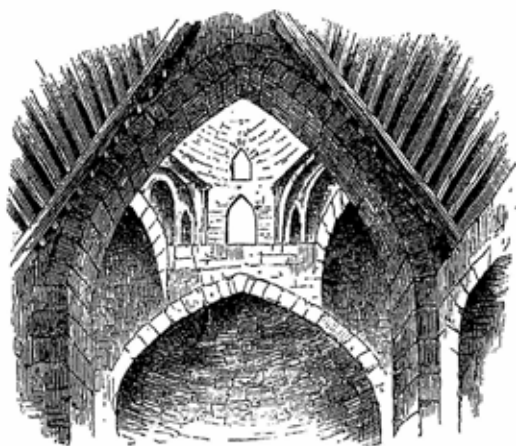
Convent in Old Cairo.

against the low square tower which forms the base of the central dome; but I think the external ground-plan is rectangular. I could not ascertain this, however, at all clearly, on account of the adjacent buildings.



Coptic Convent, Menoude.

Near the ancient mosque of Amer in Old Cairo is a walled village containing two conventual churches, with domes, and apsidal chancels and transepts. The naves are long, like those of European churches, and have wooden roofs. The



Inside of Dome in Old Cairo.

pointed arch is used. In the largest of these churches the square part under the dome is not so wide as the apse, consequently the transept arch springs from the haunch of the eastern apsidal arch. The cut that I have given will explain

what I mean. In all these conventual churches the dome, though very plain, is quite as prominent an external feature as in the mosques.

I must again repeat, that my remarks are the result of very limited and imperfect observations; and, therefore, where I have laid down any general proposition, it must be understood that there are probably many exceptions. Some exceptional buildings I hope to notice hereafter, and also to give instances of the influence of Western architecture on the Eastern styles.

(To be continued.)

THE ANTIQUITIES OF SOUTH JUTLAND OR SLESWICK.¹

By J. J. A. WORSAAE, Hon. F.S.A., Director of the Museum of Northern Antiquities at Copenhagen. Translated, with the concurrence of the Author, by
Ch. G. AUGUST GOSCH, Attaché to the Danish Legation.

PART I.—THE STONE AGE, AND THE BRONZE AGE.

INTRODUCTION.—In selecting the subject of the following pages, the author has been guided by various considerations, which have led him to believe that such a treatise would be particularly appropriate at the present moment. In the first place, the ancient Danish province of South Jutland—consisting mainly of the Duchy of Sleswick—has, alas! with the exception of only a few insignificant fragments, been entirely severed from the Danish realm, to which it had belonged since the earliest dawn of history and the first formation of states in the North of Europe. And, while the whole Danish people mourns this great loss, it comes home to the Danish archæologist more forcibly perhaps than to many others, for no province was more closely interwoven with, or played a greater part in, ancient Danish history, than South Jutland, nor could any boast such imposing relics of bygone times as Sleswick possessed in the Danevirke, in the neighbourhood of which almost every inch of ground was sacred soil, calling to remembrance mighty deeds of old. Henceforth, Danish archæologists and historians cannot hope to receive from German authorities such facilities for their investigations as were hitherto accorded them by the Danish Government. They must, on the contrary, expect every difficulty to be thrown in their way; and it is but too much to be feared that many relics and monuments, which even enemies ought to respect, either already have been destroyed or will be so ere long. It seemed, therefore, high time that

¹ It should be observed, that the appellation South Jutland embraced the whole country between the Eider and the Kongeaae, of which the Duchy of Sleswick never comprised all, nor does it now. The former name is almost ex-

clusively used in the following paper, as this treats of the whole country, and as the Duchy of Sleswick was not created till long after the end of the antiquarian era.

some general account of the antiquities of this interesting country should be given, embodying the results of the investigations of preceding years; and it seemed so much the more necessary to do so just now, because a not inconsiderable number of German archæologists, misled by political bias and national prejudice, altogether foreign to true scientific research, have attempted to find in the antiquities of South Jutland vestiges of an ancient *German* population, to whose supposed existence there in pre-historic times they appeal in calling Sleswick a German country, and in claiming a right to possess it as such. In order to give a colour of foundation to these unscientific attempts to press archæology into the service of political and national agitation, these authors are obliged to arrange the few—in many cases misconceived—facts at their disposal according to their preconceived theory, not *vice versa*, and the inevitable consequence is an endless confusion. The desire of clearing away this confusion was one of the considerations which led to the publication of the present treatise, in the English translation of which, however, almost all special allusions to the statements and arguments of those German authors have been omitted, as not possessing sufficient interest to English readers; and this has been done with so much the more readiness as those statements and arguments are too often of an unpleasantly personal character.

But the author had at the same time a far more important object in view than merely to set right our knowledge of the local antiquities of a certain district, or to defend himself and others against literary attacks.

It so happens, that precisely in South Jutland some of the most important antiquarian discoveries of late years have been made, throwing a strong light on certain hitherto rather dark pages of our pre-historic era, and strongly supporting not only the theory of the three ages—the Stone, the Bronze, and the Iron age—originally proposed by northern antiquaries, especially by the late Mr. C. Thomsen, director of the Copenhagen Museum, the first museum which was arranged on that system—but supporting also certain propositions for a more detailed subdivision, advanced some years ago by the author of these notices, and more fully brought out on this occasion.

Those readers who are acquainted with the author's work

on "The Primæval Antiquities of Denmark," will perceive several novel features in the following memoir: not only are the Stone and the Bronze ages subdivided each into two periods, but within the limits of the Iron age even three distinct subdivisions are introduced, effecting a far more accurate survey. These improvements are among the principal results of modern critical investigation, and it is to be foreseen, that when the time comes for a new complete revision of our science, taking account of the progress since the publication of the above-mentioned work, many other points will also have to be treated in a different manner. The author wishes that the present little treatise should be looked upon as the forerunner of such a new manual; and as such it is hereby, in a somewhat condensed form, submitted to the English antiquary, to whom, moreover, the antiquities of South Jutland may justly be supposed to have a special interest, as that country has been hitherto so commonly believed to have been the original home of the ancient Angles.

I. THE EARLY STONE AGE.—How long the Cimbric peninsula has had its present configuration is still an open question. Naturalists conjecture that it must originally have formed a contiguous whole with the Danish islands and Skaane, on one side, and with the British isles, on the other, until the formation of the Channel between England and France, and of the Sound and the Great and Little Belt, whereby the Baltic received an outlet to the Kattegat and the North Sea. Nor are traces wanting of elevations and depressions of the soil, inundations and similar natural phenomena having modified the configuration of the peninsula in course of time. But I think it hardly safe as yet to attempt anything like an accurate calculation of the dates of these changes, by means of certain rather isolated and still insufficiently investigated discoveries of antiquities.² Even the repeated discoveries of artificial flint chips (or plain flint knives) imbedded in peat under the marshy clay and amongst branches and stems of birch trees, of which the roots are still fixed in the sea-bottom, near Husum, on the west coast of Sleswick, require ulterior confirmation by more extensive

² Thus, for instance, I hardly think the reasons sufficient which Sir Charles Lyell adduces (*Antiquity of Man*, chap. ii.) for supposing that Jutland has been

an archipelago at no very remote period, and particularly since the settlement there of its earliest inhabitants.

investigations, before we can conclude with certainty from them that a flint-using people had settled on the peninsula before this depression of the ground along the west coast of Jutland, whereby forests have been covered, in some places by the sea, in others by peat-bogs, which again have been covered by marsh clay. Only so much may be said with certainty, that both this considerable depression and other natural changes, which we have here to take into consideration, have been the effect rather of slow and gradual development than of sudden revolution.

Although, therefore, recent discoveries have made it highly probable that man has existed in several parts of Western Europe at a far earlier period than was hitherto generally accepted—so much earlier as to have been contemporary with elephants and other large animals which have become extinct there thousands of years ago,—no evidences of so early a population have as yet been discovered either in South Jutland or in any other of the ancient Danish provinces. Bones and teeth of elephants have been dug up in gravel and marl pits and elsewhere, both in South Jutland (on the Holstein frontier, when the Eider canal was constructed, and near Haderslev) and in other provinces farther to the north and east; but, as far as I am aware, hitherto not under circumstances indicating a contemporaneous population of the country. Future inquiry must decide whether the old Danish provinces have been peopled as early as other more mountainous countries to the south and west, or whether they have not rather at a somewhat later time become fit for permanent habitation even by the least civilised hunting and fishing tribes of the earliest stone period.

We do not yet possess certain information as to the existence in South Jutland of those very remarkable refuse-heaps (kitchen middings), containing fragments of shell-fish, mammalia, birds, and fishes, remains of the meals of the aborigines, rude implements of stone, bone, and burnt clay, discovered in other parts of ancient Denmark, and belonging to the earliest stage of the Stone age of which traces have hitherto been found there. Nevertheless, evidences of an early population are not wanting in South Jutland, not even in the low marshes on the western side. Entirely similar characteristically rude implements of stone and bone have

been discovered in many places, particularly along the sea-coast, and, according to a verbal communication from a local collector, on the shore of inland lakes, just as in other parts of Denmark; and not only isolated specimens have been met with, but large accumulations, indicating repeated visits or a protracted sojourn of aboriginal fishers and hunters—for instance, in a valley amongst the sand-hills near Sintlar on the island of Amrom near the west coast. Such rude instruments have formerly too often been looked upon as only half-finished or unsuccessful specimens, but it now becomes more and more evident that they have never been intended for anything more finished, but belong mostly to the earliest and most primitive period of the Stone age, when the art of manufacturing stone implements was still in its infancy, when there was hardly any beginning of agriculture, breeding of cattle, or civilisation generally, the inhabitants living exclusively on fishing and hunting—the extensive forests of the peninsula and its coasts yielding not merely the common kinds of game, but oxen (the *urus*), elks, reindeer, wild boars, beavers, wood-grouse, and geir-birds (the great alk).

There can be no doubt that such rude and very ancient implements of stone and bone may be discovered hereafter farther to the south and east, on the shores of Holstein and North Germany, which unquestionably had as ancient a population as the peninsula of Jutland and Denmark generally; archæological inquiry having, moreover, established important points of similarity in other respects between these countries and the Scandinavian North with regard to the Stone age. On the coasts of Western and Southern Europe similar implements have already been found, which seem to indicate that the earliest period of the Stone age in the north probably coincided with a contemporaneous period of transition in the western and southern coast-lands of Europe, where a still earlier stage of the Stone age, the most ancient hitherto investigated, seems to have preceded it.³ And, if we turn to Egypt and other oriental countries with an equally ancient civilisation, we are carried still farther back in time; for there too we must be able to trace the very earliest

³ For illustrations of those rude implements, which now also in Norway, in Mecklenburgh (by Lisch), begin to be considered as belonging to an earlier period of the Stone age, see my work on

Northern Antiquities, Nos. 47, 48, 78, 79, 82-4, 2, 3, 20, 29, 30, 62, and the Proceedings of the Royal Danish Academy of Sciences, 1861, pp. 272-283.

periods of human civilisation: a Bronze age as well as the different stages of the Stone age, which in all probability must have reigned there, ages before they existed in Western Europe,—an inquiry which I cannot but recommend to those who have the opportunity of pursuing it.

II. THE LATE STONE AGE.—The darkness, in which the earliest population of Europe as well as of other continents is shrouded, begins to lighten a little towards the close of the Stone age, particularly on the coasts of the Mediterranean and the Baltic. I think it may be assumed that by that time the peninsula of Jutland has, on the whole, already had its present extent and configuration and,—to judge from the monuments still preserved,—a permanently-settled population with a higher civilisation than that of mere fishers and hunters. It is not impossible that those pine and oak forests, of which the remains are so often brought to light in peat-bogs of South Jutland and Denmark generally, had not yet quite given way to the succeeding beech forests. But in any case the state of things was essentially the same on the whole peninsula as far as the Eider, comprising both North and South Jutland, as they were afterwards called. The fertile eastern coast, intersected by deep fjords, was then covered by immense forests, which moreover in those days stretched farther over the middle and the western coasts of the peninsula than the forest-lands do now. Nevertheless, large tracts, of sand and heather, were found on the wide-spread plain in the middle of the peninsula, and the western coast offered more open country than forest-land; only here the soil was more fertile than in the middle part, and there were extensive meadowlands which towards the south assumed the character of marshes. Fjords, lakes, and rivers then covered a greater area than now, and many tracts on the west coast were no doubt more thinly inhabited at that time than afterwards, on account of the great humidity of the soil. At any rate, it is certain that the large sepulchral stone chambers and well-manufactured stone implements which characterise this period, and which are so frequently met with on the east coast, are much less numerous on the plain in the interior, and almost disappear in the watery districts to the West. This is particularly striking in the marshes of South Jutland, where the stone chambers are entirely wanting, and where

even loose stone implements are very rarely found, as if they had been merely lost there on occasional visits.

There is a strict uniformity in shape and workmanship between the stone objects of this period found in South Jutland, and those found in the present kingdom of Denmark and that part of the Scandinavian peninsula which lies to the south of the great Swedish lakes; the same uniformity is observable also with regard to the tombs of the Stone age, of which, in spite of wholesale destruction by the progress of agriculture, a sufficient number is still left.

The commonest tombs are the *Circular Cromlechs*, rather low round tumuli surrounded by large boulders, and containing in the middle one or sometimes two, round, oval or rectangular stone chambers, of which the sides and tops are formed of large granite blocks, naturally flat, or, in some cases, artificially flattened, on the inner side. The interstices between the side stones are filled up with flat chips of stone, which generally also cover the floor of the chamber. A small passage, built of stones, exactly as the chamber itself, and leading to it from the east, south-east, or south, is not of unfrequent occurrence. Originally, these chambers have been either entirely covered by earth, or at any rate so far that only the top stones were visible. In many cases, however, the earth has been taken away in the course of time, and the remaining denudated stone chambers then stand forth as isolated, generally open cists, which some archæologists still erroneously treat as a particular kind of monument.

The *Long Cromlechs* are entirely of the same kind, only larger, containing sometimes as many as five sepulchral chambers, in which the unburnt bodies have been found either prostrate or in a sitting posture, a circumstance which entirely disposes of the supposition formerly current, that these cromlechs were places of sacrifice or for public meetings, so called "*Things*." The boulders surrounding them form long and narrow ovals sometimes more than one hundred feet long; nay, on the island of Femern, one has a length of more than four hundred feet! In all other respects the construction is the same as of the circular cromlechs. The corpses in them have generally been covered with chips of flint (obtained by exposing large blocks to the fire, when they burst), stamped together with clay; and near them we find peculiar plain or ornamented vessels of clay, beads of

amber, ornaments and implements of bone, stone hammers and axes with drilled shaft-holes, and different kinds of flint implements, generally neatly cut and carefully ground. The axes and hammers are mostly of granite, and it is justly supposed that metal tools have most likely been used for finishing them off so well, especially for drilling the hole. Nevertheless, but few instances are reported of metal objects having been found in the chambers, and they need, in any case, further confirmation. Still more dubious are the reports, both from South Jutland and from other places in the Scandinavian North and elsewhere, of the occurrence of burnt bones in grave chambers of this period. Such reports are, in all probability, founded on some mistake; either the vessels of clay deposited in the chambers, probably with victuals, have been mistaken for cinerary urns, or else those pieces of charcoal and burnt flints, which are found in all stone chambers, even with unburnt skeletons, have erroneously been looked upon as evidences of cremation—nay, in some cases, urns containing ashes and burnt human bones, which at a later time have been deposited in the sides of the barrows, may erroneously have been supposed to belong to the original sepulchre in the middle of the barrow. Such cinerary urns, which in many cases demonstrate their later date by containing objects of iron, have been frequently discovered in the sides of long cromlechs, both in North and South Jutland.

Quite similar results have been obtained with regard to the third class of tombs from the Stone age, the so-called *giants' chambers*. In many cases cinerary urns containing burnt bones and small pieces of metal, mostly bronze, are found near the extremities and at the tops of this kind of barrows, whilst on their bottoms graves of the Stone age invariably occur, often in considerable number, containing unburnt corpses, accompanied by objects of burnt clay, amber, stone, or bone, but never or rarely anything of metal. These *giants' chambers* are not only distinguished from the other stone graves by being entirely covered with earth and generally of considerable extent, but they are besides mostly provided with long entrance-passages, of which the sides and roofs are constructed of flat stones, and which were used for sepulture as well as the chambers. These are, therefore, sometimes appropriately called "passage cham-

bers." Several of them are found in different parts of South Jutland, as far south as Missunde.

We have stated already that the graves of the Stone age in South Jutland correspond in every respect to those found in other parts of ancient Denmark and Scandinavia; but quite similar graves, containing unburnt skeletons and tools of stone and bone, occur both in Holstein—even in Dithmarschen—and all over the plain of North Germany, near the coasts and along the great rivers as far as the more mountainous tracts in the interior. I am not aware of any "giants' chambers" having been found in Germany, or indeed anywhere farther south in that part of the continent than Missunde, in the southern part of Sleswick. But even if none should be found in future south of the Eider, this would only be a local peculiarity, caused perhaps by the longer duration of the Stone age in the north, which is also indicated by the greater perfection of the stone implements found in Denmark and South Sweden. Similar and even larger "giants' chambers" are found in Ireland and Bretagne, and graves of the Stone age, generally preserving in all essential points the same outer forms and the same contents, are met with not only in the Scandinavian countries and in North Germany, but all over western Europe, Holland, the British Islands, France, Portugal, Spain, North Africa, the coasts of the Mediterranean, Crimea, and through Asia to India. They are mostly found near coasts and rivers, but reach now and then into the more remote mountainous countries—for instance, in Switzerland, where they have been discovered near the "Pfäffiker see," one of those lakes which have contained remains of lake-dwellings of the Stone age, and, in these, remarkable proofs that the population at that period carried on agriculture, cattle-breeding, nay, even gardening and commerce with distant countries. Corresponding discoveries of bones of domesticated animals in the graves themselves, and in other monuments from the Stone age in different parts of West and North Europe, even in the Scandinavian countries, give additional strength to the supposition, which is rendered probable by the great size of many tombs, their situation on the most fertile spots, and the abundance of excellently worked stone implements found in them, viz., that permanent settlements, possession of tame cattle, agriculture and the

rudiments of civilisation generally have, towards the close of the Stone age, not been confined to Switzerland alone, but extended, with local modifications, over all those countries where the stone graves are found, which everywhere exhibit such remarkable uniformity.

Bones of domesticated animals from the Stone age have been found not only in the middle part of Germany, in France, and the British Islands, but also quite lately in Mecklenburg in several places, both in the remains of "cave habitations," and in several of those lake-dwellings which have now been found also on the shores of the Baltic, though—with the exception of a dubious locality in Sleswick—not in Denmark. These bones were found together with well-manufactured flint implements. The investigation, in 1863, of a long cromlech of great size situated on the largest and most fertile plain of West Gothland in Sweden, brought to light, besides bones of swine and horses, a certain number of spear-heads or awls, made of the bones of sheep; and, even if the first-named bones might have been dragged into the tombs at a later time by foxes and other wild animals, these last objects appeared sufficient to warrant the conclusion that the people of the Stone age lived not only by fishing and hunting, but that they practised agriculture and possessed tame cattle.

The skulls and other human remains found in the graves of this age have not yet been submitted to sufficiently careful and extensive investigations to enable archæologists to decide whether it was one and the same people, or several tribes of a different race, which inhabited so great a part of Europe, and even parts of the coasts of North Africa and of Asia, at the time of this remarkably uniform civilisation. As far as the countries north of the Eider are concerned, it has been ascertained that the people of the Stone age were of ordinary size; but their skulls do not exhibit any constant type, some being rather round and others quite oblong, from which it might be concluded that the population, even before the close of the Stone age, had already become mixed through new immigrations, which in those remote ages most probably took place in a gradual manner, rather than by sudden events.

III. THE EARLY BRONZE AGE.—When the Stone age, in its different stages of development, had reigned probably for

thousands of years in Europe, it yielded, several centuries—in some places more than a thousand years—before Christ, to a new civilisation, that of the Bronze age, heralded by the magnificent “giants’ chambers,” with their beautifully-shaped stone implements, which in some cases were possibly worked with metal tools. But just as the transition from the earlier to the later period of the Stone age was a gradual one, thus many circumstances indicate that scarcely in any country has that stage of civilisation which is characterised by the use of gold and bronze suddenly superseded the previous state of things—as was hitherto believed by many—not even where it was imported originally from abroad by colonists or conquerors.

I do not merely allude to the above-mentioned insufficiently authenticated reports of metal objects having been found in graves of the Stone age, particularly in “giants’ chambers;” but I rely on the certain fact that during the earlier period of the Bronze age the old custom, according to which the bodies of the dead were buried unburnt, was still in use, and even predominant in comparison with the new custom of cremation, the only difference being that, in most cases, merely tumuli of earth, but no stone chambers, were constructed on the burial-places. Not even this difference was, however, always observed, for in some of the tumuli from the Bronze age we find regular stone chambers, with burnt flints at the bottom; in others—and somewhat more frequently—the remains lie in a kind of stone cist, known also from the Stone age; whilst others, again, exhibit novel and local peculiarities in the form of the chamber. In many of these tombs not a few stone tools are mixed with the objects of metal. In this respect the state of things in South Jutland is particularly interesting. The cromlechs of the Bronze age are far more common in South Jutland than those of the Stone age, and are distributed over the whole of the province. Several of them have, on examination, been found to contain unburnt bodies, buried in different ways, and amongst these not a few contained in their tops and sides urns with burnt bones and ashes, whilst the remains of unburnt bodies occupied the bottom,—evidently sepultures of different periods. No instance has ever been discovered, in South Jutland or elsewhere in the North, of cromlechs containing burnt bones at the bottom and skeletons.

at the top, from which it may safely be concluded that the custom of cremation was of later origin than that of burying the body whole. In the northern part of Sleswick, between the town of Aabenraa and the frontier of North Jutland, eight instances have come to light where the unburnt bodies at the bottom of the barrows were deposited in hollow and split oak trunks, under piles of stones, finally covered by earth, the tops and sides sometimes containing urns with ashes, burnt bodies, and bronze objects. These oak coffins do not exhibit marks of a saw having been used. The skeletons inside are almost entirely destroyed, but it is quite apparent that the bodies have been originally wrapped in well-woven woollen cloths, with thicker mantles, and caps of a peculiar kind of felt, and laid on ox or cow-hides, sometimes

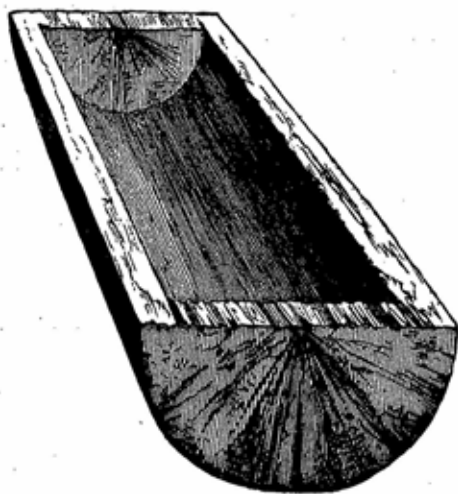


Fig. 1 a, Coffin of wood found in a barrow in Sleswick.

with the horns on. With the skeletons were found very fine swords, sometimes with bronze hilts; a palstave, daggers and ornaments of bronze; a double spiral bracelet of gold, turned wooden cups, sometimes with ornamental tin nails carefully hammered in; chipboxes, horn combs, &c. The accompanying illustrations represent a part of the objects

found in one of these barrows called "Dragshöi," viz., the coffin (fig. 1, *a, b*); a piece of the skull with hair (fig. 2), a small bronze dagger (fig. 3), a piece of woollen cloth (fig. 4), a turned wooden cup, 6 in. high, and $12\frac{1}{2}$ in. wide at the mouth, with tin nails (a piece of tin was found near the cup), (fig. 5, *a, b*); and a small chip box, lying in the wooden cup (fig. 6). In the side of the same barrow a stone cist was found, containing a bronze sword and an arrow-head of flint.

I.—ANTIQUITIES OF THE EARLY BRONZE AGE FOUND IN SOUTH JUTLAND.



Fig. 3. Bronze dagger found in a barrow with a coffin. Length, 7 in.



Fig. 6. Chip-box found in the wooden cup; barrow called Dragehøi. Diam. ab. 4 in.



Fig. 1, 6. Coffin formed of the trunk of an oak, found in a barrow called Dragehøi. Length, 9 ft.

Entirely corresponding barrows have been found in the adjoining parts of North Jutland, and even as far north as the neighbourhood of the town of Viborg; others also, dating from this period as well as from the later period of the Bronze age, are scattered over other parts of North Jutland, the islands, and Skaane, only with this difference, that in this last class the coffins are made wholly of oak planks, or the sides of stones and the tops or covers of oak planks. That in some parts of South and North Jutland the inhabitants seem to have preferred coffins made of entire trunks, is probably due to the abundance of oak timber in those localities, where, even at the present day, many houses—nay, large farms—are completely constructed of huge oak timber, though the ancient forests now are mostly gone. The best preserved and in every respect most remarkable barrows of this kind were two called “Kongehöi” and “Treenhöi,” lying close together in a field near Vamdrup in North Jutland, just north of the Kongeaa, which separates that province from South Jutland. Near their summits they contained urns with burnt bones and ashes, and at the bottom four coffins each, two of those in Kongehöi being double and consisting of split and hollowed oak trunks, one—more finished—inside the other. The antiquities were of the same kind as those found in similar cromlechs in South Jutland, and of equal merits in shape and workmanship, namely, swords and poignards with bronze hilts, or at any rate with handsome bronze knobs at the end of the hilt; elegantly carved wooden sheaths, different ornaments, amongst which we may mention a stud overlaid with amber, bronze knives, a comb of horn, chip boxes, wooden cups, one of them decorated with tin nails; a lump of tin, and, amongst the bronze objects in one of the coffins in Treenhöi, a small arrow-head of flint. There were unmistakeable remains of the unburnt bodies, which had been deposited wrapped in woollen cloths or skins, but the bodies were mostly dissolved by the water. The clothes, however, were so well preserved, particularly in one of the coffins in Treenhöi, that after having undergone restoration they are now in a state fit for use, and afford an indispensable clue to the right interpretation of the incomplete remains formerly obtained from similar oak coffins in South Jutland. To judge from the information thus gained, a warrior’s dress consisted

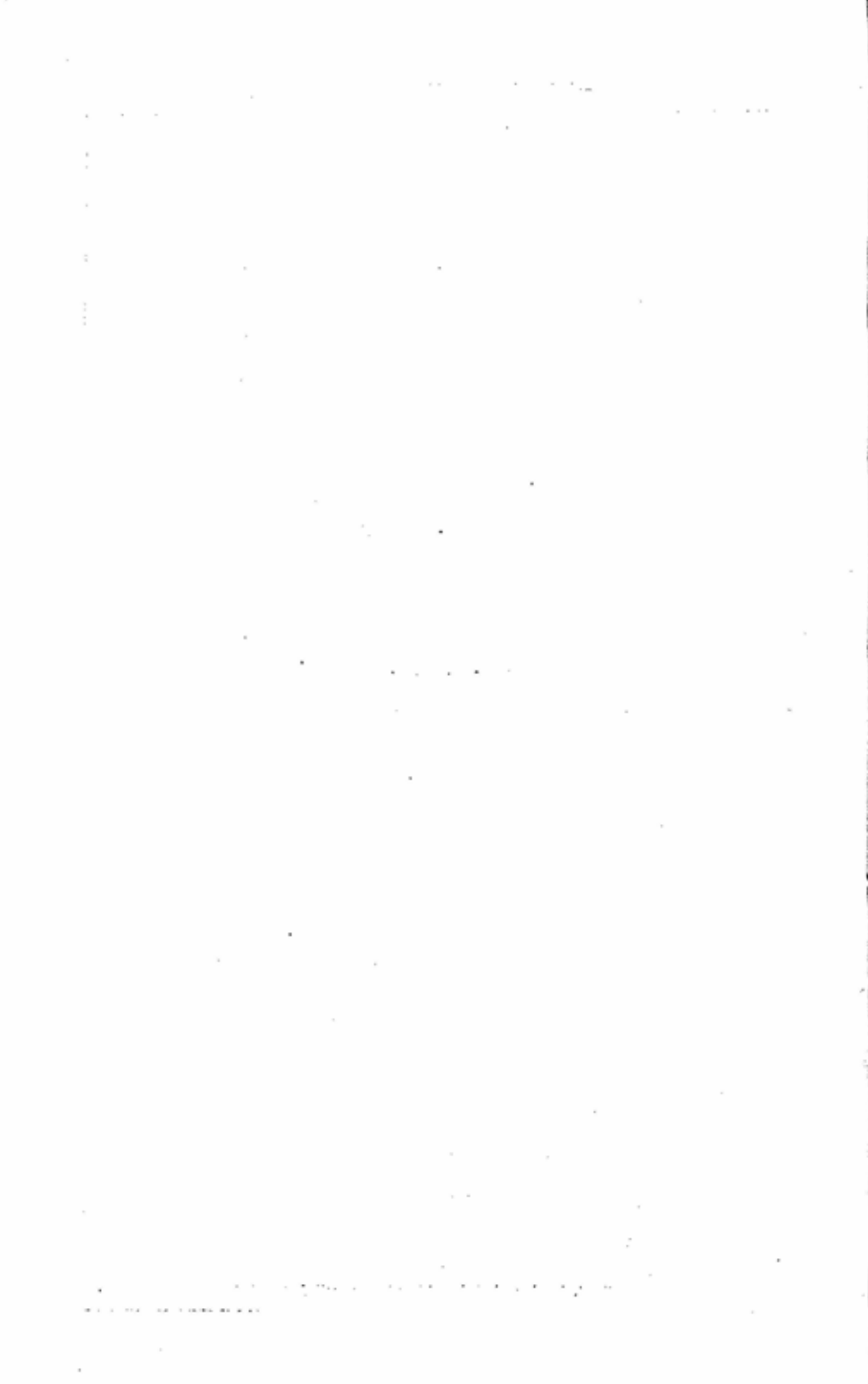
II.—ANTIQUITIES FOUND IN SOUTH JUTLAND.



Fig. 2. Portion of a skull.



Fig. 4. Woollen cloth found in a barrow called Dragshol.



III.—ANTIQUITIES FOUND IN SOUTH JUTLAND.

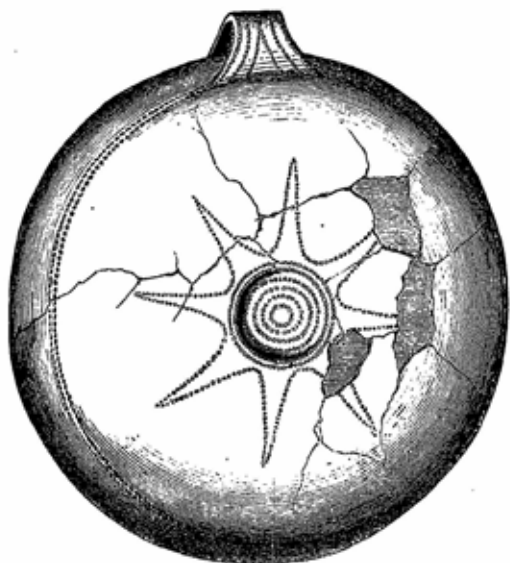


Fig. 5, b. Wooden cup, Dragshöl.



Fig. 5, a. Wooden cup, turned on the lathes, found in a barrow called Dragshöl.
Height 6 in., width, at the mouth, 12½ in.

in those ancient days of a woollen woven skirt tied round the waist; some pieces of finer cloth wrapped round the feet, but no trousers; a thick woven mantle, and a cap, perhaps also a kind of plaid. But, although rich people possessed such fine woven clothes, the poorer classes may, both then and even at a far more modern period, have used garments of skins.⁴

Sepulchres belonging to a similar early period of the Bronze age, containing unburnt bodies, fine well-developed bronze objects, mixed with a very few stone implements, have been observed in several countries outside the North of Europe; and coffins, of split and hollowed oak trunks, quite similar in shape and contents to those found in North and South Jutland, have been found in Ditmarschen, Mecklenburg, the island of Rügen in Bohemia, and in several places in England, in which latter country they may be stated with certainty to be of date earlier than the Teutonic or so-called Anglo-Saxon population. Besides this, coffins of split and hollowed trunks of oak-trees have been used far into the Iron age, both in England and South Germany.⁵ Even among savages of the present day—for instance, in Madagascar—similar modes of burial are in use. It is therefore impossible to find, in the occurrence of such coffins—as some German authors have done,—a proof that some German tribe—in the strict sense of the term—inhabited South Jutland in those ancient times.

The oldest graves and antiquities of the Bronze age, both in South Jutland and in other parts of North Europe, as far as is hitherto known, agree very remarkably in this point, that they present no traces of a "Copper age," characterised by forged copper implements, and intervening between the Stone age and the Bronze age, such as was the case in North America. Extremely few copper implements have been found in North Europe, but they are *cast*, not forged or hammered; and the same seems to be the case with those found in greater numbers in Hungary and the North of Italy (Keller's *Pfahlbauten*, Trans. Zürich Soc. Antiqu.,

⁴ Beautiful coloured illustrations of the objects found at Varndrup may be seen in A. P. Madsen's illustrated work on Danish Antiquities. *Afbildninger of Danske Oldsager*, parts 5 and 6. A body of a man dressed in plain leather shoes and a mantle made of double skin, with

strings to tie it in front, was some years ago found in a bog near Flensborg.

⁵ Lisch adduces an instance of a burial in such a coffin (*Todtenbaum*) in the year 1151 (Mecklenb. Jahrb. xxvii. 1862, p. 183).

1863). The civilisation of the Bronze age appears in the North immediately following the Stone age, and fully developed at once, characterised by cast weapons, implements, and ornaments of elegant shape and decoration; the new stage of civilisation was attended by great progress in agriculture, husbandry, and commerce, and it soon not only occupied the large tracts inhabited already in the Stone age, but even spread further in all directions, thanks to the superiority of metal over stone and bone, nor did any very considerable time elapse before this state of civilisation, with its peculiar custom of cremation and other new rites of burial, completely gained the upper hand.

IV. THE LATE BRONZE AGE.—Some cromlechs in South Jutland have been found to contain vestiges of a nearly contemporaneous use of the older custom of burying the body whole, and of the later custom of cremation, indicating a period of transition between the two. The most remarkable of them was a barrow near Sönder Brarup in Angel, in the interior of which a circle of moderately-sized stones was discovered, placed on the ground, and inside this circle, close to the stones forming it, a whole skeleton was found, whilst the very centre of the circle was occupied by a small stone cist, containing burnt human bones and a bronze pin. Outside this circle three large stones had been erected, of which one more than 8 ft. high seems to have been intended for a kind of monument. All this was covered with earth, so that nothing was to be seen outside the barrow, which was 170 ft. in circumference, and 10 ft. high, and in the side of which an urn with burnt bones and ashes was discovered. No doubt can exist that this urn had been deposited in the barrow at a later time than the original sepulchre at the bottom.

The graves in South Jutland belonging to the later division of the Bronze age, and, containing burnt bodies only, are otherwise quite similar to those of the corresponding period in the northern as well as in the western and parts of the middle of Europe. In some cases the burnt bones, with arms, implements, and ornaments, were deposited, as in the preceding period, in wooden coffins or stone cists, sometimes wrapped in skin or in woven woollen garments; in other cases the arms alone were hidden in cists or under layers of stone, whilst the burnt bones were collected in urns

and placed in another part of the cromlech ; in a third class of burials the remains of the bones, together with arms and ornaments, have been left on the spot where the body was burnt, over which then a heap of stone has been placed, and afterwards a barrow formed ; finally, and probably in the majority of cases, the bones were put into urns of clay, which were then placed in barrows, and protected by quite small square cists or boxes. Some barrows of this last description, which have served as family sepulchres or common cemeteries, contained an extraordinary number of urns. Similar general cemeteries, where the urns have been deposited in the field without erection of barrows, have been found in several places in South Jutland as also in other parts of the north, particularly in elevated situations.

The antiquities derived from these tombs correspond in like manner with those discovered in other countries of the North of Europe, particularly near the Baltic. In all these localities the difference between the antiquities of the earlier and those of the later period of the Bronze period seems only to consist in a decline in point of beauty of form and purity of style, observable in some at least of the objects belonging to the end of the Bronze age, and indicating a decline of the ancient civilisation which characterised that period. Even in the last stage of the Bronze age, silver, and to some extent glass, was unknown in the North of Europe, nor have any vestiges of an alphabet been discovered. Pure copper and pure tin were but rarely used—arms, implements, and ornaments being still in this period generally cast of bronze, composed of copper and tin. Gold, however, was sometimes used for ornaments. In all parts of Denmark and Sweden we have discovered moulds, jets of metal sawed off the finished work, pieces of metal for melting, half-finished and unsuccessfully-cast bronze objects—in short, so many vestiges remain of the stores and business of the metal-workers, that there can be no doubt that the bronze objects must, at least very often, have been manufactured in the northern countries themselves, retaining, apart from the small differences just mentioned, the same traditional general forms. At the same time I wish to observe, without detracting from the importance of the many true and undoubted remains of the manufacture of metal implements in the Bronze age, that in my opinion a con-

siderable number of deposits from the Bronze age have been erroneously described as ancient metal-workers' stores. A large proportion of our Bronze deposits have curiously enough been found in peat-bogs; and, looking at the condition of the objects deposited, I am convinced that many of them are analogous to the moss-finds of the early Iron age (see hereafter).

Careful comparisons show that, in spite of the general uniformity of civilisation obtaining throughout Europe at the time of the Bronze age, a peculiar group was nevertheless formed, from the earliest beginning of that period, by the then inhabited parts of Sweden, Denmark, North Germany, and parts of the middle of Germany, which, with regard to the excellency of their manufacture of metal objects, occupied a position equal and even superior to most other countries, especially to the western parts of Europe. In the British islands the elegant shapes and ornaments which we so frequently meet with in bronze objects from the North of Europe are more rare; the patterns are evidently peculiar, and even the composition of the metal seems to be slightly different. A similar remarkable simplicity, coupled with certain particularities in shape, is also observable in France. But, in the South of Europe, in Italy, Switzerland, South Germany, parts of Hungary, and in Greece, we find again bronze objects, which, for variety of form and elegance of execution, are equal to those from the Baltic countries, though of course the actual patterns of swords, daggers, palstaves, celts, axes, etc., are different from those of the north. Still greater differences are to be observed if we turn to those relics of the Bronze age which have been found in other parts of the world; for instance, in Africa, in ancient Egyptian graves, in Asia, near the Euphrates and Tigris (not to mention the remarkable arms of copper discovered in India), and both in North and South America.

But although that stage of civilisation which we describe as the Bronze age, forming the intervening link between the primitive culture of the Stone age and the higher one of the Iron age in almost all parts of the world, is characterised by a remarkable general uniformity amidst manifold local modifications, it has nevertheless reigned at very different periods in different countries—a fact of which we

possess distinct historic testimony. Especially in the North of Europe it retained undoubtedly its position for centuries, while the more southern nations had already attained to the knowledge and general use of iron, silver, glass, and of an alphabet. Implements for casting and other objects connected with the manufacture have, moreover, been discovered everywhere, proving that the bronze objects have been made in the countries themselves, and, in each of these, local peculiarities of shape, etc., seem to have existed from the earliest time. The bronze objects found in the different countries of Europe cannot, therefore, from the beginning have been distributed over so large tracts by direct commerce or colonies from one single nation, whether Etruscans, Romans, Greeks or Phœnicians. Any such nation would of course have imported implements and arms of the same forms and the same metallic composition to all other countries with which it traded, and would not have continued for so many centuries to manufacture bronze objects merely for the sake of exporting them, when they themselves already possessed infinitely better arms and implements of iron. With special regard to the hypothesis recently advocated with much emphasis by Professor Nilsson (*Skandinaviens Urindvaanere*, 2nd edition, 1862—1864, Stockholm), according to which the bronze objects of the North of Europe were derived from the Phœnicians, we must observe, that history does not furnish any testimony in favour of it, nor has any well-authenticated find of bronze objects been made in any of the ancient settlements of that nation. If any such should be brought to light, we can hardly doubt but that they will prove very different from the bronze objects of the North of Europe, as is the case with all those which have hitherto been found on the shores of the Mediterranean. It is more probable that future investigations of remains from the Bronze age in the East of Europe,—for instance in Finland, where very fine bronze arms have been found, in Russia, in the northern and middle tracts of Asia,—will prove that the cradle of European civilisation in the Bronze age was in the interior of Asia, where copper, tin, and gold abound. Several different tribes living in those parts may, at a very remote period, have become acquainted with the use of these metals, and developed separate styles of manufacture, which then—possibly by the migrations of such tribes—

may have been transplanted to different parts of Europe preserving their original peculiarities. Careful analysis had shown that the chemical constitution of the gold and bronze found in the graves of the Bronze age, on the shores of the Baltic, in many cases distinctly points to the Ural mountains as the source whence those metals were obtained (see Fellenberg in the *Mecklenburgische Jahrbücher*, xxix. 1864, p. 157); and it is well known that implements of copper and bronze have been found in ancient copper mines in the Ural, proving that these were worked in the Bronze age. At the same time it cannot be doubted that the inhabitants of several parts of Europe, at a very early period, obtained their supply of these metals from native sources.

(To be continued.)

THE ANCIENT TOMBS OF NICARAGUA.

By FREDERICK BOYLE, F.R.G.S.

AT the date of its subjugation, A.D. 1526, Nicaragua was peopled by at least three distinct Indian races, and, even to the present day, in wandering through the less settled districts, the traveller may trace among the inhabitants those peculiar features which characterised each of those families. These broad divisions appear to have been—firstly, the Toltec or Chorotegan, here, as elsewhere, claiming to be the aboriginal possessors of the country; secondly, the Chontal; and thirdly, the Carib. There seems good reason also to believe that a colony of veritable Astecs was located upon the territory lying between the Lakes and the Pacific; these people were called Niquirans, and spoke the Mexican tongue. The Toltecs inhabited the northern country from the Pacific coast to the mountains of Chontales, and south of the lakes into Costa Rica; the Chontals occupied the province still called by their name; and the Caribs, a more barbarous but also more spirited people, under various names and with much diversity of dialect and habit, were thinly scattered along the Atlantic shore. All accounts agree that, when the Spaniards entered the country, they found a population so dense as to excite their amazement—cities, we are told, four Spanish leagues in length—a people most active and industrious, and a soil and climate beyond their utmost expectations. The soil and climate still remain unchanged, but the most hopeful traveller could find little else in modern Nicaragua to correspond with Oviedo's account of its ancient prosperity.

By each of the three races the disposal of the dead was differently conducted. The Chontals, a mountainous people, seem to have used cremation and interment indifferently, but in either case the remains were finally deposited upon the summit of a hill, or in an artificial mound upon the broad savannah. Over the body was raised a cairn of rough stone, the size of which varied exceedingly.

Of the Caribs we know little, but, as their habits have probably not changed in one iota since the Spaniards conquered the neighbouring country, it seems likely that they buried their dead with little ceremony, and marked the spot with a parallelogram of small stones. Old graves such as these we remarked once or twice in the border-land of Chontales, and such is a frequent practice among the Indian tribes of Mosquito.

The Toltec graves are much more difficult to find than those of the Chontals. Indeed in the ancient seats of that people round the Lake of Nicaragua, it is only by accident that their last resting-places are occasionally disclosed; and those numerous graves upon the frontier line of Costa Rica, which have lately afforded so many valuable specimens of Indian art and ingenuity, were accidentally revealed by the fall of a large tree, the roots of which, tearing away a piece of the river bank, laid bare a considerable quantity of golden figures deposited in the earth. Tradition says that the Toltecs burnt the flesh of the deceased and buried the bones, or some of them, in pots of earthenware, and this story is confirmed by the appearance of their graves.

A similar practice appears to have been in use among the inhabitants of Ometepe, whom Mr. Squiers asserts to have been of the Niquiran race. On that island, however, rarely are any bones found except those of the skull.

In riding through the broad savannahs and over the green and rounded hills which are characteristic of the old Chontal territory, the traveller cannot but be struck with the picturesque appearance of the lonely thickets which spring up at long intervals above the grassy waste. These solitary little groves are always found to have root in a cairn of loose rocks in the form of a parallelogram, and sometimes of immense size. The largest that we measured was 58 yards long by 40 wide, and the smallest 20 ft. by 8; in height they vary from 10 to 4 ft. The majority of them have been more or less overthrown by the growth of great trees, but some are still in sufficient preservation to show how careful was the original building. The sides were sometimes sloped, or, more rarely, quite straight, but in either case a low parapet of rough stone was placed along the edge. On every one are found either the fragments of

statues and sculptured bits of pedestal, or at least the deep holes in which they had been planted. Some of these figures have been overthrown quite recently, but ages ago all suffered terrible mutilation from the superstitious zeal of the Spaniards. So far as we could ascertain a small statue was placed at each corner of the cairn, and a much larger one was planted with more or less accuracy in the centre. Occasionally there were several of the central figures, and it is probable that they corresponded with the number of bodies interred. The position of these monoliths is the only clue hitherto discovered to guide the digger in his search through the vast pile of stone, but very frequently his calculation proves completely erroneous.

Looking at the situation of these statues thus placed above the deceased, and observing the human character that exists about most of them; the careful delineation of the features (in some cases very peculiar); the attempt of the artist, apparent to me, to imitate minutely some object before his eye as he worked, it is difficult to avoid a suspicion that they were intended as imperishable portraits of the dead. I would particularly call attention to two specimens, which were central figures on a small cairn we opened. Broken and defaced as they are, they still give a very fair idea of a grim old warrior and his more amiable spouse. In two others there are noticeable peculiarities, which are scarcely godlike though human enough; one of them has a large wen over the eye; the other, though battered out of all shape as to his features, still displays the long curl of his beard and whiskers almost uninjured; and such manly ornaments, though rare, are occasionally met with among Indians. Indeed if anyone will compare these statues from Chontales with those found in Toltec or Niquiran districts, he cannot fail to remark a radical difference, not in the style of art merely but in the idea of the artist. From these and some other observations we made, which would not be strictly in place in this memoir, we formed a strong suspicion that Torquemada and Las Casas are wrong in asserting that the religion of all the Nicaraguan Indians was identical.

The first cairn that we opened was near the mining town of Libertad, in the north east of Chontales. It was of the largest dimensions, being 58 yards long by 40 broad, and stood on the summit of a mound some 60 or 70 ft. high.

Several treasure-seekers had already sunk random shafts into its solid construction, but without success. Selecting as nearly as possible the centre of the cairn, and encouraged by the discovery of a massy fragment of sculpture which stood erect above the spot, we set to work patiently in removing the stones. The previous attempts were of great service to us, and after little more than an hour's labour we came upon a carved flat stone, such as is still used throughout Spanish America for the grinding of maize. The rolling-pin belonging to it lay by its side. After two hours more of tedious labour we found another similar stone lying due east of the former. Then we uncovered two pans of coarse earthenware, about 4 in. in height by 7 in diameter. They were placed close together by the side of the "molinera," but the vast mass of rock in settling down had broken them irretrievably; there was no perceptible trace of any contents. Shortly after, and still parallel to the line of the "molineras," we found a vase of soft stone, subsequently ascertained to be a species of marble, also shattered to pieces. For two days more we laboured, but with no success.

The second cairn that we attacked was considerably smaller, but built with great regularity and having the coping-stones nearly perfect. Determined to investigate this tomb most thoroughly, we set our labourers to throw down the whole pile, which was the more easy as it crowned the summit of a very steep hill, and was not more than $4\frac{1}{2}$ ft. thick. For four days we persevered in our task, having never less than three men at work from early morning to nightfall, and sometimes the labourers were six or seven in number. On the fifth day we had cleared away about a sixth part of the cairn, working in a line from the eastern corner towards the centre. On the sixth morning we commenced to dig in the cleared ground, but until sunset found nothing. The earth was turned over to the depth of 2 ft., and our experienced workmen assured us that remains had never been found so far beneath the surface. At dusk we were about to abandon the "prospect" in despair after six days of continuous labour, when we suddenly came upon a "molinera" stone, such as those encountered in the former cairn. Next morning we dug out another vase of white marble, much broken, but superior to the first in design. It was in shape

like a can resting on a perforated stand, and profusely carved on the sides. An ornament, perhaps originally a handle, stood out from each side. Next we came upon a quantity of crockery, crushed flat but apparently similar in shape to the pan-like vessels found in the same position in the other cairn, and again there was no trace of contents. Then we discovered a great quantity of human teeth, sufficient probably for half-a-dozen individuals, and shortly afterwards a row of cinerary urns, about 20 in. high and 15 in diameter, lying east and west. They were five in number, and it seemed probable that through their crushed sides had fallen the teeth just discovered. They all contained the sticky black earth, quite different from the surrounding soil, which we concluded to be the remains of burnt flesh, but no bones or other articles. Our researches produced nothing further.

It is very rarely that these Chontal tombs are opened. The labour is intense, the surrounding population is very poor and not the least inclined towards archæology, and the reward of a spirited digger is very small. I cannot believe, although it is contrary to the received opinion, that any of the Nicaraguan Indians were in the habit of burying gold with their dead; but the tribes of Honduras to the north and of Costa Rica to the south both practised it largely. A rattle of washed gold, which we dug up in a cinerary urn near Juigalpa, is the only article of metal we could hear of which had been indubitably discovered in that province; the grave also from which we recovered this relic and its accompanying necklace was by no means Chontal in appearance. Oviedo, Torquemada, Herrera, and all the early writers, refer frequently to the golden ornaments and the copper instruments of the Indians; but it is probable that they drew little distinction between the country now called Nicaragua and the neighbouring states of Costa Rica and Honduras, the inhabitants of which have left abundant proof of their superior civilisation in the numerous and valuable articles deposited with their dead.

In the cairns of Chontales are sometimes found axes and celts of stone—flint or basalt; flakes of flint occasionally in small quantities; nearly always a considerable pile of broken crocks, which never apparently contained anything; and invariably one or two molineras or maize grinding-stones. Many of these are handsomely carved in a style superior to

anything now produced in the country, and some of the stone weapons are admirably modelled. At Libertad a double-bladed battle-axe was offered us for sale, which for accuracy of form and beauty of workmanship more than equalled anything of the kind I have seen in Europe. The owner of this instrument was fond of opening the small cairns which exist in thousands around Libertad ; but he told us that he had rarely discovered any perfect pottery and never any articles of metal. Persistently, however, he asserted the truth of a report which had first called our attention to this district of Chontales, viz., that it was no unusual thing there to dig out fragments of porcelain or of some similar composition from the larger graves. It did not occur to us at the moment that the vases of white stone, such as we ourselves had discovered, might be the porcelain alluded to.

In cases where the body has not been burned, the bones are found mingled with the stones of the cairn above the surface of the ground. It is in graves such as these that weapons are more usually disinterred.

The density of population in ancient Nicaragua, especially on the shores of the Lake, is abundantly proved by the quantity of broken pottery which everywhere can be dug up a few inches below the ground. Wherever a hole is made, there a fragment of some antique vessel is sure to be found, either a grotesque mask, or the leg of a tripod, or a stone rattle such as was used in the religious ceremonies of the Indians. In the middle of the prairie, in the thickest jungle, on the mountain side, or in the sandy beach, everywhere this is the case, but most notably so in the island of Ometepe in the Lake of Nicaragua.

Through ignorance of the exact boundaries of these ancient tribes I am unable to venture on any theory as to whether Toltecs or Niquirans were the early inhabitants of this island, but its name, Ome-Tepec, is undoubtedly Mexican. Whether Toltec or Niquiran, however, these people, probably owing to their island position and consequent immunity from sudden attack, seem to have made great progress in art, and to have formed a population comparatively more dense than even the thickly peopled mainland. From Ome-Tepec almost all the antiquities hitherto furnished by Nicaragua have been procured ; here stood, until a few years since, the best carved and most gigantic monoliths. On the sister island of Zapa-

tero, once crowded with Indians, but now uninhabited, are still to be seen numerous idols in the very first style of grotesque horror.

Antiquities are most numerous and in best preservation on the south-western slope of Ometepe. I am to be understood literally in saying that the inhabitants of that district depend entirely on their spades for their domestic pottery. Partly from shame and partly from a feeling of awe, they are most jealous of any allusion to the history or language of their ancestors; but a tradition is still extant among them, the only one in fact which we could gather, that when the news of the Spanish conquests on the mainland was spread abroad, so great was the terror already everywhere felt from the reports of their cruelty, that the Indians all buried themselves alive with their household goods, and the conquerors were compelled to repeople the island. As regards the concealment of property this story seems likely enough, for, of the deposits almost daily uncovered by persons in search of some basin or crock for the wants of their primitive house-keeping, many it is quite clear have no connection whatever with any burial. The Indians know at a glance, by the position of the crocks, whether they may expect to find therein some mouldering bones of their ancestors, or whether, without scruple of conscience, the treasure may at once be turned to account. If the deposit be funereal, the earthenware is found piled up in a single heap; if otherwise, it is scattered about without order.

The ashes of the dead, with the bones of the skull, were placed in an urn of slipper shape; the beads of basalt or calcedony, the celt, or the flakes of flint were placed among them; in the mouth of the urn were laid the basins of black earthenware, the larger overlying the smaller; and over all were placed bowls of whitish glaze, covered with odd markings, which closed the mouth. Some of these cinerary urns are of great size. We have met with them 3 ft. 1 in. in length and 20 in. high; they are nearly always painted in streaks of scarlet and black, with an ornament of two or three snakes upon the rounded end. At the back is frequently a grotesque mask or handle attached with "slip," or some similarly adhesive material. Occasionally the urn is more bowl-like in form; of such I have seen two specimens, one of which, used by the finder as a horse-trough, was 2 ft. 10 in.

in height by 2 ft. 6 in. in diameter in the centre. It was painted in streaks of scarlet and black.

None of the inhabitants of Nicaragua appear to have been hunters. Though deer abound throughout the country, and peccaries, pumas, tapirs, maniti, and other animals, are all numerous, those trophies of skill and daring so much valued by our ancestors—the boar's tusk, the deer's horn—are never found in Indian graves. Even the bones of animals are not common. The alligator is a frequent ornament of their pottery and statues, and I once found in the jungle a rude clay representation of a stag, but the human face, grotesquely distorted, was the usual model of their artists. Glass does not appear to have been known to them, nor the use of any metal. It is true that the Cacique of Rivas is said by Peter Martyr to have presented D'Avila with gold to the value of twenty-five thousand pieces of eight; but, as already stated, we were assured by all persons of any experience that in no part of Nicaragua were gold ornaments found, and I should prefer to believe that D'Avila spread reports of such wealth to draw the attention of the adventurous to the scheme of colonisation he was at that time meditating. Mr. Squiers in his work upon this country presents an engraving of a copper mask from Ometepe, but, in the absence of further specimens, the antiquity of this relic must appear doubtful. We are expressly told that the Indians fought against their invaders with arms of wood and stone; surely in a country so wonderfully rich in copper, that metal, had the people possessed any knowledge of working it, must in a very few years have superseded wood and stone for purposes of war. Such indeed we find to have been the case in Costa Rica and New Granada, but in Nicaragua, except here and there a solitary article such as the rattle I have alluded to—which may have been brought from another country by a fugitive or prisoner of war—no trace of any such knowledge is to be found in their graves. The Indians themselves also at this day are unanimous in ascribing to the Spaniards their first instruction in the use of metal.

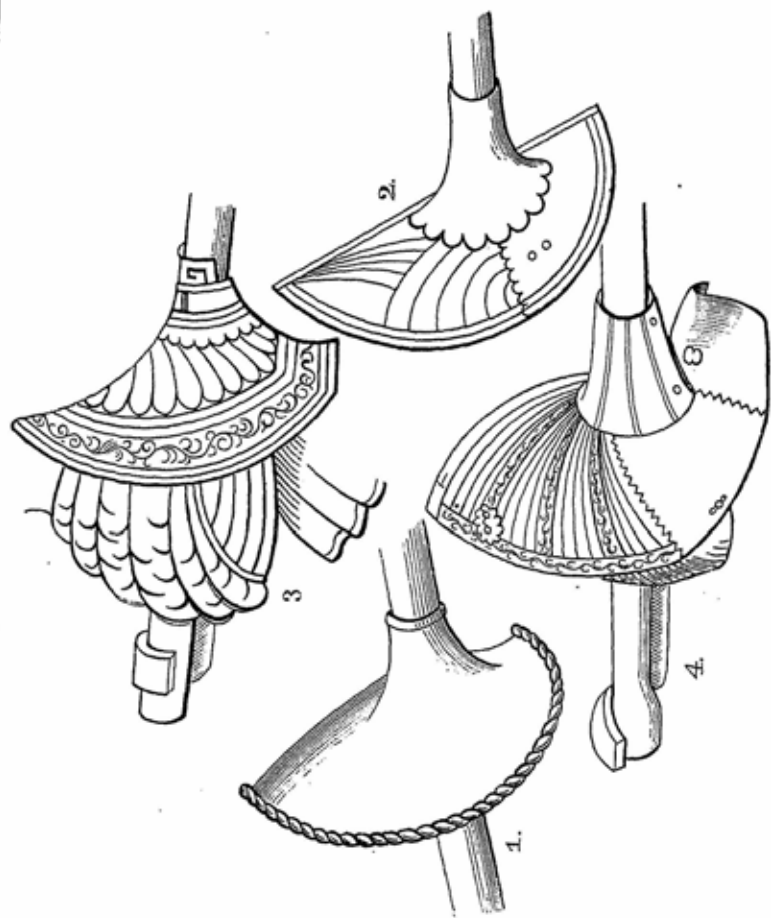
In conclusion I would venture to remind any member of this Society who may have a liking for adventurous research, of the wonderful prospect that Central America offers to the antiquary. Besides the stone enigmas of Palenque and Copan, the mysterious romance of the Maya city—the true

story of which is by no means so absurd as we are used to believe in England—besides the treasures which lie buried in the graves on the Serebiqui, there are, if we may believe report, dead cities of far greater size and splendour than any yet known. In the wild Mosquito territory are vast remains of a civilisation long passed away. Sometimes, on the lonely shores of the Mico, amidst the unstayed vegetation of a thousand years, the startled traveller is brought face to face with works of such magnitude, sculptures of such colossal boldness, as tell him of a perished race as far superior to that the Spaniards found as the builders of Thebes to the Nile "fellaheen." He sees rocks cut down to the shape of men and animals; artificial hills encased in masonry; streams turned from their courses; volumes of hieroglyphics sculptured upon every cliff. Or, turning to the southward—there, across the San Juan river, dwells that mysterious and dreaded people the Guatusos or White Indians of the Rio Frio. This strange and indomitable race, who may possibly owe their bravery and love of freedom to an ancestry of English buccaneers, occupy the north east corner of Costa Rica, and there, surrounded by settled country, within three weeks of direct sail from England, they positively keep the wealthiest district of that Republic as completely closed to the world as if it were sunk beneath the Atlantic. What stories have we not heard of them from Caribs and Indians? What tales of wonder are too wild for belief when they relate to the country of the dreadful Guatusos?

For various reasons of self-interest the oligarchical government of Costa Rica has hitherto set itself most decidedly against any endeavour to penetrate the territory of these fierce savages, or to enter into communication with them, but Dr. Castro, who has been recently made President, expressed to us, on the day of his election, a hope that the mysteries of the Rio Frio might soon be solved. But, if this anticipation is to be realised, it must be by foreigners. There is nothing to be expected from the natives of the country.

It is my intention to renew, in the ensuing spring, the attempt that I have recently made to explore the Rio Frio district, so replete with remarkable and stirring interest. To ensure the success of an undertaking fraught with difficulty and danger, as such an adventure must prove, it would,

however, be indispensable to secure a few energetic and spirited auxiliaries, such as are doubtless to be found in the ranks of a society so devoted to the investigations of bygone times and extinct races as the Institute. It would be necessary that such an enterprise should be combined independently, for the most part, of the people of Costa Rica, whose hesitation and timidity—notwithstanding that they have such a vital interest in the exploration—caused the failure of the expedition recently organised by myself in concert with Mr. Jebb. The importance of the Rio Frio and of the country inhabited by the Guatusos cannot be overrated, in regard to its historical and ethnological interest. I cherish the hope that the wishes so cordially expressed by the late President of the Institute, the late Marquess Camden, and by other influential members of the Society, that adventurous coadjutors might be found ready to give efficient cooperation in the arduous enterprise on which I purpose next year to engage, may be fully realised.



Jousting Vamplates.
 Fig. 1.—From a picture of the Emperor Maximilian, 1497. Fig. 2.—From the Triumph of Maximilian, pl. 51. Fig. 3.—From Von Schlichtegroll's
 Tourney Book, pl. 17. Fig. 4.—From Dresden Museum, Heber, pl. 74.

CONTRIBUTIONS TO THE HISTORY OF MEDÆVAL WEAPONS
AND WARLIKE APPLIANCES IN EUROPE.

By JOHN HEWITT.

JOUSTING VAMPLATE OF THE SIXTEENTH CENTURY, FROM
THE ROYAL ARTILLERY MUSEUM AT WOOLWICH.

THE High Vamplate for the jousting-lance here figured is from the original preserved in the Royal Artillery Museum at Woolwich. The surface is richly engraved, and has been "parcel gilt." Its period appears to be the beginning of the sixteenth century. This form of vamplate (? the German "Gärbeisen") was adopted to supply the place of arm and hand defences, and we find that the champion who employed it did not bear armour either on his arms or legs. He wore only a cuirass, with tassels for body-armour proper, his left side being defended by a large grand'-garde reaching to the eyes, the right side by the high vamplate here seen, the legs to below the knees by shields fixed to the edge of the saddle, while the head was protected by a salade. The lower part of the legs had no defence, being out of the legitimate striking region. The hands are commonly quite bare, and not unfrequently we see the fingers of the knight, when running his course, profusely adorned with rings.

An early example of the Scharfrennen with high vamplate occurs in the picture of the Emperor Maximilian and the Elector of Saxony in 1497, given by Hefner, "Trachten," part ii., plate 109; from which subject we reproduce the vamplate—our figure 1. A similar one is seen in Tewrdannekh, woodcut 101. The "Triumph" of the Emperor Maximilian furnishes examples closely resembling the Woolwich specimen, being divided into two principal parts by a notched line. See plates 50, 51, 52, 55, and 56. Our figure 2 is from plate 51. In Von Schlichtegroll's *Tourney Book* of Duke William of Bavaria we have many examples of knights tilting with the high vamplate. Figure 3 of our series is the

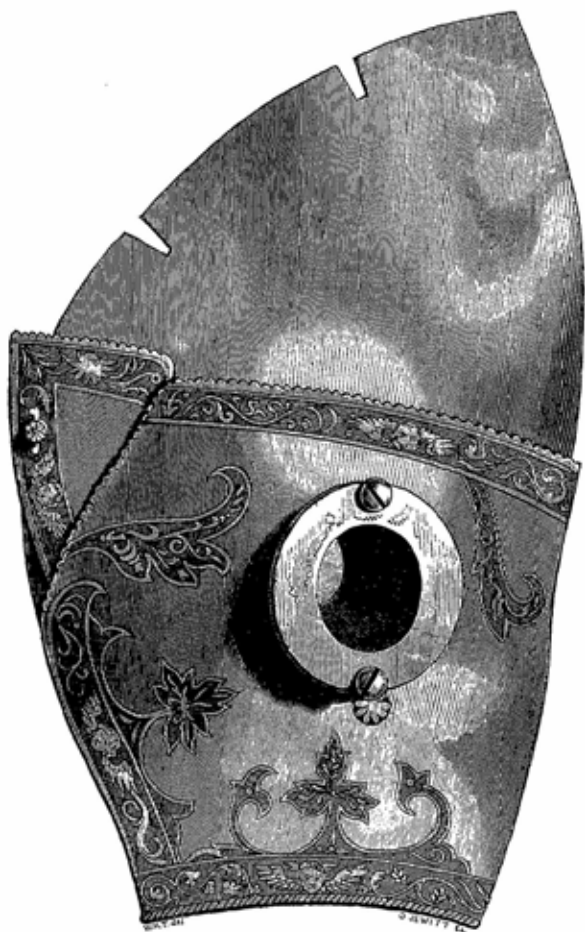
usual form of the defence, and appears in the picture of a Scharfrennen in 1513, plate 17 of the work. Round vamplates, also, occur in the volume, and courses with blunt lances. In Ruxner's Tourney Book, 1530, the high vamplate appears on page 71, the knights armed as described above. Hefner, in plate 74 of his fine work, has engraved a specimen preserved in the Dresden Museum, of more elaborate arrangement; our figure 4.¹

In all these instances there is a prolongation in front, to hold the lance; differing in this particular from the Woolwich example, where the tube is placed *within* the shield. Irrespective of this tube, the Woolwich vamplate consists of three pieces: a plain one extending from shoulder to wrist, reinforced in the lower half by an ornamented plate; while at the side a small decorated piece is added, being fastened to the mainguard by a nut and screw, through a notch similar to those seen at the upper edge. It is probable, therefore, that the two empty notches formerly served to attach additional pieces to the upper plate; and the displacement of any one of these may, by the rules of the sport, have counted as a minor triumph to the jousting who effected it. It will be seen, by reference to the woodcuts, that the lance-point being driven against the bead at the edge of any one of these plates would easily cause the attaching screw to slide away through the open cleft. The inside view shows us the hook for sustaining the forepart of the vamplate, and the iron tube through which the lance passed. This tube is of two parts, the upper cylinder moving upon the two lower by means of three nuts and Z-formed slots, by which the whole tube could be made longer or shorter to the measure of about 3 in. Its full length is $5\frac{1}{2}$ in.; interior diameter, 3 in.; which, of course, gives the size of the lance at this part. The height of the entire vamplate is 2 ft.; its breadth at the middle, $14\frac{1}{2}$ in.; the weight, 13 lb. 12 oz.

With this kind of vamplate was commonly used a large iron queue, similar to those seen in figures 3 and 4. The lances themselves varied, not only in their having pointed and blunt heads, but in the staff. In some instances this was

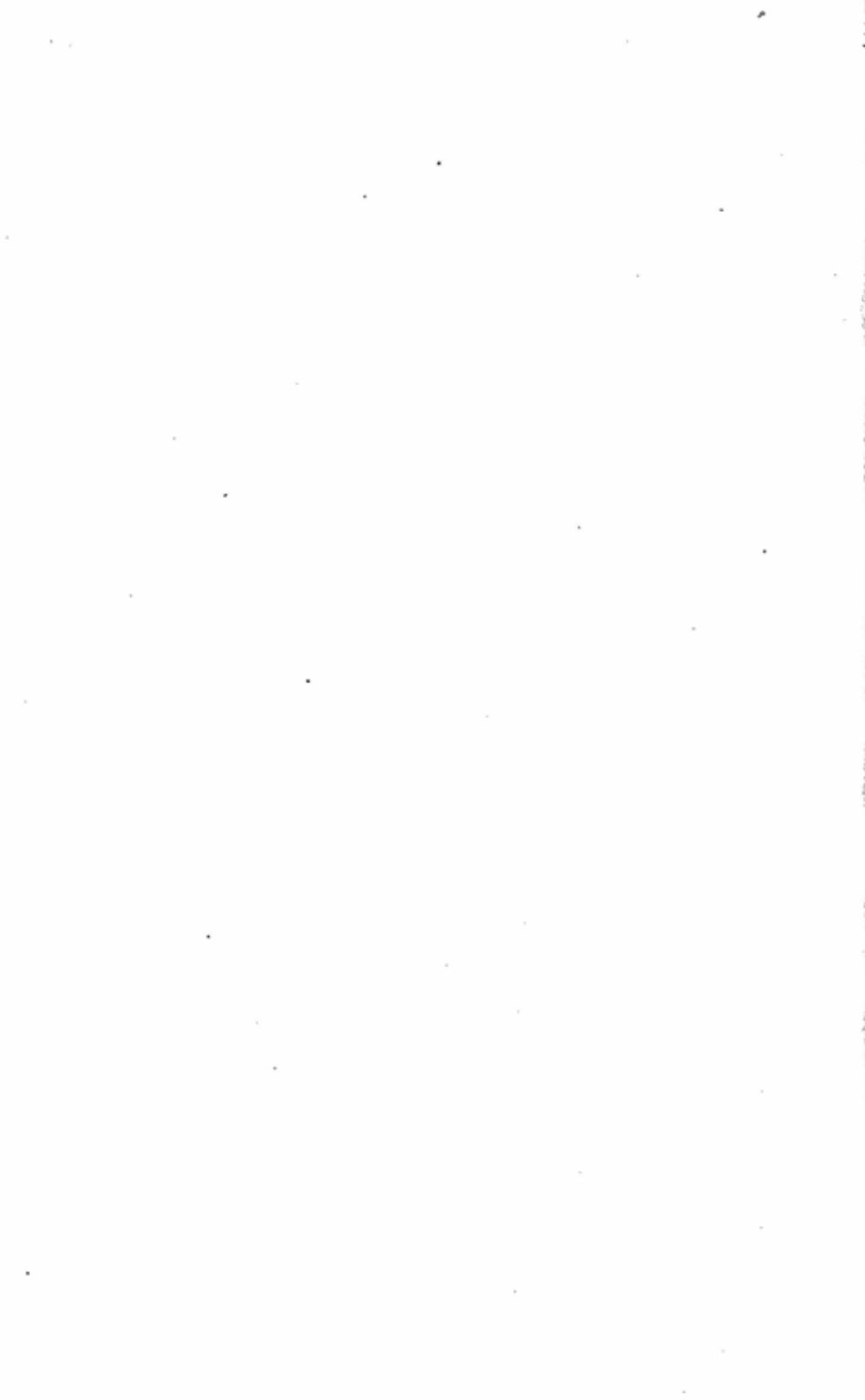
¹ See also the figure of Augustus I., duke of Saxony, in the Dresden Museum; reproduced from Hefner's *Trachten*, in "Ancient Armour and Weapons in Europe," by J. Hewitt, vol. iii. pl. 125,

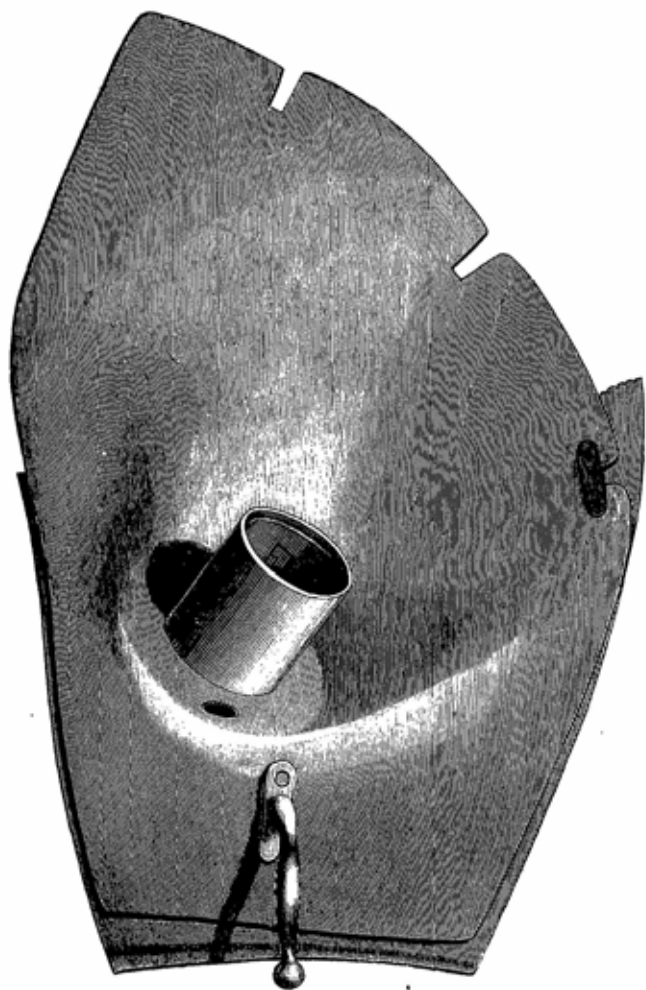
p. 647. This and also the companion figure at Dresden representing Albert Duke of Austria are given in the illustrations of the Dresden Armoury by Reibisch.



Jousting Vamplate of the Sixteenth Century (exterior view). Royal Artillery
Museum, Woolwich.

From a drawing by Walter H. Tregellas, Esq.





Jousting Vamplate of the Sixteenth Century (interior view). Royal Artillery
Museum, Woolwich.

From a drawing by Walter H. Tregellas, Esq.

quite smooth and plain. In others it appears as rough from the forest (Von Schlichtegroll, plate 28; Hefner, plate 90). Frequently it is painted with two colours twining from end to end. Again, the whole length is covered with ostrich feathers of various hues; some have coloured ropes of a kind of floss wound round them; while others are embellished with a series of gauzy puffs, having rosettes at the gatherings. All these, and many more, are well represented in the Bavarian Tourney Book, named above. The same volume exhibits two curious modes of hastiluding; one shows us the champion encountering a group of *three* tilters, a deed of sufficient daring, as it appears to our post-mediæval perceptions, but surpassed by a later example in the same record, where we have the Duke of Bavaria attacking and attacked by a band of *five* knights:—"Der Herzog hält ein Gesellenstechen mit fünf Rittern."

The Fighting-lance of this period is well depicted in Tewrdannckh, plates 89 and 92.

We have already noted that examples of the High Vamplate are to be found in the Tower collection, Nos. $\frac{2}{3}$, $\frac{7}{48}$, and $\frac{7}{49}$. There are also specimens in the Musée d'Artillerie at Paris.

Original Documents.

CHARTER OF HENRY VII. TO THE FRANCISCAN FRIARS AT GREENWICH, AND AN INEDITED SEAL OF THE WARDEN.

The Charter communicated by JOSEPH BURTT, Esq., Assistant Keeper of Public Records, and the Seal contributed by the Rev. JAMES GRAVES, M.A.

THE History of the Convent of Franciscan Friars at Greenwich, a house of royal foundation which seems to have been situated closely adjacent to the palace, long a favorite resort of the court and demolished by Charles II., has remained in much obscurity. Our attention has recently been called to the charter granted by Henry VII., not many months after his accession, and hitherto it is believed unpublished, having, so far as we are aware, been only cited briefly by Hasted, Lysons, and some other writers.¹ It has been thought desirable to give at length a document that may be an acceptable contribution to the history of Kentish monasteries.

It appears that a religious house had been founded at Greenwich by Edward III. in 1376, for Friars Minorites, or Dominicans, according to Philipot; it was a cell to St. Peter's Abbey at Ghent,² to which the manor of Greenwich appertained as part of the endowment of their cell at Lewisham; the manor of the place last-named had been given to the Abbey near Ghent by Eltrude, niece of King Alfred.³ Lysons has observed, however, that he had found no record of the foundation of a priory at Greenwich by Edward III., by the persuasion, as it had been alleged, of Sir John Norbury, his treasurer; and he remarks that there is great reason to believe that no such house existed, but that it has been confounded with the Benedictine priory of Lewisham.⁴ Henry V., in the second year of his reign, suppressed the alien priories throughout England.⁵ It has been asserted by Weever and other writers, that the friars were at that time expelled from their house at Greenwich, and their possessions bestowed by the king on the Carthusian priory which he had recently founded at Shene.⁶

In 1480, as stated in the Annals of the Order, Edward IV. conferred with the Vicar-general, William Bertholdi, being desirous to bring the Friars Observants, or Franciscans, into England. Edward granted them their first establishment at Greenwich, of which Sixtus IV., in the year

¹ Hist. of Kent, vol. i. p. 550; Lysons' Environs, vol. iv. p. 464.

² Alien Priors, vol. ii. p. 138.

³ Dugdale, Mon. Angl., edit. Caley, t. vi. p. 987.

⁴ Lysons' Environs, *ut supra*. Sir John Norbury does not appear to have

been treasurer until 1 Hen. V.

⁵ Rot. Parl., vol. iv. p. 22; Alien Priors, vol. ii. p. 211.

⁶ Weever, Fun. Mon. p. 340; Dugd. Mon. Angl., vol. vi. p. 29; Lambard, Peramb. of Kent, Greenwich, see s. a. 1416.

before mentioned, sanctioned their acceptance.⁷ At this time, possibly, the convent may have become a Wardenship.⁸ According to the supposition of Hasted, Edward founded the convent near his palace through the persuasion of his sister, Margaret, Duchess of Burgundy. Lambarde, however, states that they "obtained by the means of Sir William Corbrige (as some thinke) a chauntrie with a litle Chapel of the Holy Crosse, a place yet extant in the towne."⁹

By the subjoined document, dated Dec. 14, 1 Hen. VII. (A.D. 1485)¹ it appears that the king,—on the humble prayer of the Friars Observants of the Order of St. Francis in East Greenwich, and in consideration that his predecessor Edward IV. had, by license of the Pope for the foundation of a convent there, granted to the said Friars a certain parcel of land with buildings thereon, adjacent to the royal manor or palace, the said premises having been purchased by the king for the erection of a church, conventual buildings, and other requisites of the house thus newly founded, and that the Friars, having taken possession and having laid the first stone with great solemnity, began to construct certain small buildings ("pauperculus domunculas") in honor of the Blessed Virgin, St. Francis, and All Saints,—granted and confirmed the said premises thus bestowed on the friars by Edward IV., and founded a convent to consist of a Warden and twelve brethren at the least. It is stated that Henry VII. subsequently rebuilt their convent from the foundation:² he was doubtless a great patron and promoter of the Order, which was indebted to that sovereign for not less than six convents in various parts of England.

The royal concessions to the Friars of Greenwich were ratified with no ordinary solemnity; the attesting witnesses of the new foundation were the archbishops—Thomas Bourchier, cardinal and primate of England, and Thomas Rotherham, archbishop of York, at that time treasurer of England; he had been chancellor in the troublous times of Edward IV.;

⁷ In the library of Corpus Coll. Camb. MS. No. clxx, are to be found, No. 43, p. 72, "Testimonium fundationis domus fratrum minorum de observantia in villa de G. [Greenwich] Roff. dioc. per Edwardum IV. 2 Julii, 1482.—Confirmatio ejusdem domus per episcopum Roff. virtute commissionis a sede apostolica, eodem die ac anno." Catal. ed. Jac. Nasmyth, p. 242.

⁸ Greenwich does not occur in the list of the Custodies and Wardenships of the Friars Minor in England, amongst the nine convents of the Wardenship of London, as given by Mr. Brewer in the "Monumenta Franciscana," edited by him for the series of Chronicles and Memorials under direction of the Master of the Rolls, appendix, p. 579.

⁹ Perambulation of Kent, written in 1570; see the account of Greenwich, under the year 1480, cited also by Weever, p. 339, Hasted, and other Kentish historians.

¹ In the edition of Dugdale's Monasticon by Caley, and in other notices of the convent, the date is erroneously given as

1486.

² Dugdale, Mon. Angl., vol. vi. p. 1512, edit. Caley, citing Hist. of the English Franciscans, p. 216, where it is stated from the annals of the Order that Henry VII. built for the Franciscans three convents from the foundations—namely, Greenwich, Newark, and Richmond. Lambarde observes that "(as Polydore and Lilly say) King Henrie the Seventh builded for them that house adjoining to the Palaice which is there yet to be scene." Peramb. of Kent, under Greenwich. The convent stood, according to Hasted, adjoining to the west side of the palace, where the road, now known by the name of the Friars' Road, points out the situation. After the final expulsion of the friars by Elizabeth in 1559, the priory buildings had been used as part of the palace; they were sold by the Parliamentary Commissioners in 1652, and were, probably, demolished when Charles II. began to rebuild the palace; the site is now occupied by part of Greenwich Hospital.

also John Alcock, bishop of Worcester, lord chancellor, and Peter Courtenay, bishop of Exeter, keeper of the Privy Seal. With these eminent ecclesiastics are found as witnesses, Jasper Tudor, Duke of Bedford, uncle of Henry VII., and John de la Pole, Duke of Suffolk; also John de Vere, Earl of Oxford, lord chamberlain, who had recently been restored to all his honors and possessions, and the Earl of Nottingham, earl marshal, Sir John Fitzwalter, steward of the household, Sir William Stanley, chamberlain, brother of Sir Thomas Stanley, created earl of Derby, the hero of Bosworth Field, and Sir Richard Croftes, treasurer of the royal household. It may deserve notice, as evidence of the favor and consideration of this sovereign to the Franciscans, that his letters patent should have been thus attested by the great officers of the realm and principal officials of the court.

Of the subsequent history of the convent it may suffice to state, that Henry VIII. was, in the early part of his reign, a zealous promoter of the Observants. At the request of the Friars of Greenwich he granted, in 1516, a yearly pension of 1000 crowns to the brethren of that Order who kept the Holy Sepulchre at Jerusalem.³ His queen, Katherine of Arragon, showed also much favor to the Franciscans; one of the brethren of Greenwich, John Forrest, was her confessor. She was indeed herself, it is stated, of the third Order of St. Francis, and she was accustomed to rise at midnight to be present at matins and lauds, to the great edification of her subjects, in the church of the convent at Greenwich.⁴ They requited her favor by warmly espousing her cause in the affair of her divorce; and thus so greatly irritated the king that he suppressed the Order of Observants throughout England. The convent was dissolved August 11, 1534. On the accession of Mary, the Friars were reinstated in their possessions, and their convent was repaired at her cost, in remembrance, it is said, of their attachment to her mother. They were finally expelled by Elizabeth in 1559.⁵

No seal of the Convent of Greenwich has, so far as we are aware, been noticed. We are indebted to the Rev. James Graves, secretary of the Kilkenny and S.E. of Ireland Archæological Society, a zealous antiquary, whose frequent courtesies we acknowledge with gratification, for an impression of the seal of the Warden, of which the matrix has, we fear, been unfortunately lost. Mr. Graves informs us that the impression, now in the collection of the Kilkenny Society, and from which the accompanying woodcut has been executed, was given to him about 1849 by a Roman Catholic ecclesiastic, the late Rev. Dr. Nowlan, P. P. of Gowran, county Kilkenny, by whom it had been received, about forty years previously, from some person connected with the Dominican Abbey of Kilkenny. It was stated that the impression in question was from the ancient seal of that monastery. The Dominicans, Mr. Graves observed, have become repossessed of the remains of their ancient house in Kilkenny, by lease from the Tynne family, the present owners of the site. Mr. Graves has in vain sought to trace where the matrix may now be found.

The seal, now first published, is of the pointed oval form; the device is the Assumption of the Blessed Virgin, who is seen supported by four angels;

³ Hist. of the English Franciscans, p. 218, citing Wadding's Annals of the Order; see also Hist. Min. Provin. Angl. Fratrum Minorum, p. 41.

⁴ Hist. Engl. Franciscans, *ut supra*.

⁵ Hasted, Hist. of Kent, and Lysons' Environs, vol. iv. p. 464.

a radiant *nimbus* around her head ; beneath is an escutcheon of the arms of France and England, quarterly, ensigned with the head of a cherub ; the legend, in the bold capitals of the latter part of the fifteenth century, is (*in extenso*) as follows :—SIGILLVM · GARDIANI · GRVNWVICENSIS.



Seal of the Warden of the Franciscan Friars at Greenwich. From an impression preserved in the Museum of the Kilkenny Archaeological Society. (Original size).

We may assign the seal to the period of the foundation of the Franciscan convent at Greenwich by Henry VII., in the first year of his reign. The lettering, it may be observed, is introduced upon a border or fillet that appears, in the impression, slightly raised, as seen in a few matrices of the period, above the field of the seal. It is possible that the letters may have been impressed on the metal by means of punches. Quatrefoils are used to separate the words of the legend.

We proceed to place before our readers the instrument preserved in the Charter Roll of the first year of Henry VII., in the Public Record Office. We are indebted to the obliging assistance of Mr. Burt in bringing to light a valuable document, for which no place had been found amongst the voluminous additions compiled for the new edition of Dugdale's *Monasticon*.

A. W.

ROT. CART. 1 Henr. VII. No. 24. [A.D. 1485.]

Rex archiepiscopis episcopis abbatibus prioribus ducibus comitibus baronibus justiciariis vice-comitibus prepositis ministris et omnibus ballivis et fidelibus suis salutem. Sciatis quod nos, ex humili supplicatione fratrum minorum de observantia ordinis Sancti Francisci in villa de Estgrenewiche in Comitatu Kancie commorantium, accepimus qualiter Edwardus nuper Rex Anglie quartus antecessor noster carissimus, ex suo mero motu et donatione quibus ad eorum ordinem et familiam movebatur, a summo Pontifice petiit et obtinuit auctoritatem fundandi unam domum seu conventum pro usu et habitatione fratrum ordinis et familie ipsorum, sicut in bulla desuper impetrata plenius continetur. Demum dictus Edwardus nuper rex auctoritate sibi concessa uti volens, missis in dicto loco de Estgrenewiche Domino Jacobo Norwicensi et Domino Edmundo Roffensi epis-

copis ab ipso Edwardo nuper Rege specialiter ad hoc deputatis, certam
 parcellam terre sue cum certis antiquis domibus desuper edificatis in dicta
 villa de Estgrenewiche, manerio nostro ad tunc suo alias dicto placea regia
 contigue adjacentem, continentem in latitudine duodecim virgatas terre et
 in longitudine sexaginta et tres virgatas terre, per ipsum regem de suis
 propriis pecuniis emptam, ad ecclesiam cimiterium claustrum refectorium
 dormitorium ortos aliasque domos necessarias ad conventum dicti ordinis
 requisitas, certis fratribus ordinis et familie ipsorum tunc presentibus, et
 ceteris aliis fratribus ejusdem eciam ordinis et familie in dicto loco extunc
 futuris temporibus succedentibus, pro perpetuis usu et habitatione ipsorum
 predictorum fratrum minorum de observantia, de novo taliter construendas,
 dedit contulit et assignavit; ac eosdem fratres, posito primo lapide eorum
 futuri conventus cum solemnitate speciali in talibus fieri solita, in plenam
 possessionem et seisinam inde posuit. Et insuper hoc fratres predicti, sub
 spe et confidentia doni predicti nuper Regis et augmentatione premissorum
 successione fienda, diversas pauperulas domunculas ad Dei et beatissime
 Virginis Marie Sanctique Francisci ac Omnium Sanctorum laudem et
 gloriam, pro salute et prosperitate totius regni Anglie imperpetuum depre-
 caturi, suis propriis laboribus sumptibus et sudoribus intentione premissa,
 devotione nonnullorum fidelium eis in hac parte assistente, de novo edificare
 inceperunt. Nos, non solum piam intentionem predicti nuper Regis
 bonasque dispositionem devotionem sumptus et labores eorundem fratrum
 die ac nocte in orationibus precibus et jejuniis ibidem Deo famulantium,
 verum etiam qualiter inter cetera misericordie et pietatis opera divinorum
 celebratio a sacerdotibus verisque Dei vicariis canonicè ministrata aliorum
 omnium maxime sit suprema; quamque meritorium fore credatur hujusmodi
 ministerium sustentare in quo miserime peccatorum anime ab eorum
 maculis purgate refrigerium consequuntur et veniam, ac fragiles in culparum
 voluptatibus deviantes adviam gratie reducuntur intime considerantes,
 de gratia nostra speciali ac ex certa scientia et mero motu nostris unum
 conventum sive domum Fratrum Minorum de observantia perpetuis futuris
 temporibus apud dictam villam de Estgrenewiche ad laudem et gloriam Dei,
 ut superius dictum est, ac beatissime Marie Virginis et Sancti Francisci et
 omnium sanctorum, de uno gardiano et duodecim fratribus ad minus, institu-
 endum renovandum et continuandum juxta eorum regulam et statuta ac
 alias laudabiles consuetudines ordinatas et approbatas ac ordinandas et
 approbandas fundavimus ereximus creavimus et stabilivimus ac per pre-
 sentes fundamus eregimus creamus et stabilimus. Et ut dicti fratres et
 successores eorum pro bono statu nostro dum agimus in humanis ac pro
 anima nostra cum ab hac luce migraverimus imperpetuum deprecentur,
 dedimus et concessimus ac per presentes damus et concedimus eisdem gar-
 diano et conventui ac fratribus predictis ac successoribus fratribus suis
 ordinis et familie predictarum terras et tenementa superius specificata cum
 omnibus et singulis suis pertinentiis una cum domibus desuper edificatis;
 habenda et tenenda sibi et successoribus suis de nobis et heredibus nostris
 in liberam puram et perpetuam elemosinam imperpetuum absque aliqua
 inquisitione sive aliquibus inquisitionibus inde virtute brevis nostri de ad
 quod dampnum aut aliter fienda sive capienda quoquomodo, et absque
 aliquo fine seu feodo inde nobis aut heredibus nostris seu ad opus nostrum
 aliquo reddendis solvendis seu faciendis, statuto de terris et tenementis
 ad manum mortuam non ponendis aut eo quod expressa mentio de vero
 valore annuo seu aliquo alio valore terrarum et tenementorum predictorum

in presentibus minime facta existit, vel aliquo alio statuto actu ordinatione sive provisione in contrarium factis editis ordinatis seu provisus, aut aliqua re causa vel materia in aliquo non obstantibus, jure speciali ecclesie parochialis cujuscumque semper salvo. Hiis testibus, Venerabilibus Patribus Thoma Cantuariensi totius Anglie Primate, consanguineo nostro carissimo, et Thoma Eboracensi Primate ac Thesaurario Anglie, archiepiscopis; J. Wigorniensi Cancellario nostro Anglie, et P. Exoniensi Custode privati sigilli nostri, episcopis; Jasperi Bedefordie avunculo nostro carissimo, et Johanne Suffolchie, ducibus; Johanne Oxonie magno Camerario et Thoma Notynghamie Marescallo Anglie, Comitibus; ac dilectis et fidelibus nostris Johanne Fitzwater senescallo, Willelmo Stanley Camerario, et Ricardo Croftes Thesaurario hospitii nostri, militibus, et aliis. Datum per manum nostram apud Westmonasterium xiiij. die Decembris.

Per breve de privato sigillo et de dato, &c. et pro Deo quia pauperes.

Proceedings at Meetings of the Archaeological Institute.

NOVEMBER 3, 1865.

The MARQUESS CAMDEN, K.G., President, in the Chair.

THE attendance at this, the opening meeting of a new session, was more than usually numerous. The noble Chairman took occasion, on the re-assembling of the Society, to advert to the cordial welcome and hospitalities that they had found in Dorset, amidst scenes of great archæological interest. Lord Camden expressed the satisfaction with which he had participated in the proceedings of the annual meeting held at Dorchester; he congratulated his archæological friends around him on the success that had attended their congress, and on the accession of many energetic recruits to the ranks of the Institute. The choice of the place of their next annual gathering had fallen on the metropolis; the noble President looked forward with gratification to the prospect of future successes under the gracious encouragement of Her Majesty, who had been pleased to sanction a visit to Windsor Castle, with its numerous features of interest, archæological and artistic.

The first subject brought before the meeting was the discovery of the position of the Roman Station *Othona*, the *Ithanceaster* of Saxon times, at St. Peter's Head on the coast of Essex. The circumstances that had brought to light the long-forgotten vestiges of that important stronghold on the Saxon Shore, through works of reclamation under the charge of Mr. Hemans, as first announced to the Institute by that gentleman, have been stated in a former volume of this Journal.¹ The Rev. R. P. Coates now described the results of a recent visit to the site under the friendly guidance of the Rev. John Warner, rector of Bradwell-*juxta-mare*, the parish in which it is situated. He placed before the meeting a series of drawings by the Rev. H. M. Milligan, and a large collection of coins and miscellaneous relics that had been entrusted to Mr. Coates by Mr. J. Oxley Parker, on whose estates the discovery was made, and by whose liberality the explorations have been carried on. Mr. Coates gave the following account of his expedition, and of the ancient chapel, St. Peter's-on-the-Wall:—"After a pleasant drive of thirteen miles from one great estuary, the Crouch, to the shores of another, the Blackwater, on which Bradwell is situated, I recognized from some distance the Western elevation of the building, once a church, now a barn, which was with me the principal object of investigation. But I will first endeavour to give a

¹ Arch. Journ., vol. xxii. p. 64. See also the notices by Mr. Roach Smith, Gent. Mag. 1865, p. 403.

slight account of the Roman *castrum*, through the western wall of which it protrudes. This post, the Othona of the Itinerary, has the walls on three of its sides, North, West, and South, distinctly traceable; the work is of the kind called *emplecton*; the appearance is as follows:—one course of stone above the ground-line, then three sets-off of wall-tiles, each receding the same distance beyond the one below it; then the vertical wall is carried up with four courses of stone and three of tiles. Nothing remains higher than this, except on the South side, where there are two more courses of stone. The N.W. and S.W. corners of the *castrum* are rounded off; about the middle of the West wall there is an opening, perhaps a gate. Further onwards, to the North, the solid foundation of a tower projects, in form a segment greater than a semicircle, and thirteen feet in width where it joins the wall; against the rounded N.W. corner there is the base of another semicircular tower, fifteen feet in diameter. In the North wall there are two openings, possibly gateways; but in the South wall there is no trace of any gate or tower, and the sea seems to have come nearly up to the S.W. corner, for at the level of the ground-line of the wall there is a layer of sea-weed, covered by more recent deposits. Of the East wall, towards the sea, there are no remains, and some persons have thought that there was no wall on that side; but it seems more probable that it has perished by the action of the sea. At about 120 feet from the South wall, and about 220 feet from the West wall, there are ruins of what may have been a later building. The general dimensions of the work are as follows:—Length, West wall, 520 feet; North wall, about 270 feet (now traceable); South wall, 117 feet. The eastern opening is about 570 feet, so that the *castrum* does not appear to have been precisely rectangular. Supposing the North and South sides to have extended about as far as the West and East, the area enclosed would be about seven acres. The ancient chapel, St. Peter's-on-the-Wall, of which the remaining portion, the nave, measures 54 feet in length by 26 feet in width, projects about 20 feet beyond the face of the Roman wall; the masonry of its walls for about four-fifths of the height being apparently original, probably Early Norman. In the North and South walls there are remains of four windows, now blocked up, placed very high—the crowns of their arched heads reaching to the top of what appears to be the original wall. In the middle of the South wall is a doorway; further towards the East a second; and a third in the West wall. The East end is built up, but there are traces of the arch of an apse, constructed partly with Roman bricks; the foundations also of the apse have been exposed to view.”

Mr. Coates noticed also traces of a building to the North, possibly a sacristy. He proceeded to describe certain constructive details, indicating, as he believed, that in a later age, probably the late Middle-pointed period, the Norman walls were heightened about one-fifth, and buttresses constructed to support the additional weight. The numerous relics that were placed before the meeting, by kind permission of Mr. Oxley Parker, consisted of Roman personal ornaments and appliances, fibulæ, styli, combs, armlets, tweezers of bronze, spindle-whorls, beads, rings, &c., with numerous tools, weapons, implements of bone, fragments of glass, jet, and Kimmeridge coal. The coins found at Bradwell, about 200 in number, comprise many of Constantine and his family, and of a long series of the later emperors. Mr. Coates pointed out especially a

coin of Carausius, of the rare type "Pacator Orbis;" also silver pennies of Æthelwulf, and three sceattas, one of them of a unique type.

The Rev. F. Spurrell offered some remarks on the remains disinterred at Bradwell, and especially on the chapel described by Mr. Coates, a structure that some antiquaries had been inclined to attribute to times earlier than the Norman period, usually considered to have been the period of its construction, the débris of the adjacent Roman Station having supplied the chief part of the materials. A full account of the remarkable vestiges of *Othona* will doubtless be given in the Transactions of the Essex Archæological Society.

The Count Constantine Tyszkiewicz, honorary foreign member of the Institute, sent an account, with numerous drawings, representing leaden pellets, or small *bullæ*, found during the previous summer in the sandy bed of the river Bug, at Drohitchin, an ancient town on the confines of Lithuania and Poland. These objects, which vary in size from about half an inch to nearly an inch in diameter, bear symbols of very curious character in relief, chiefly resembling those commonly known as merchants' marks; and, in a few instances, birds, human heads, also devices closely resembling such as occur in heraldic bearings of the Slavonic nations. These *bullæ* are pierced transversely, as if for suspension by a cord, and they had been regarded by the Society of Antiquaries at Wilna as seals that had been appended to grants, or other documents. The Count is, however, inclined to consider them connected with certain religious or talismanic purposes; he sent drawings of numerous symbols resembling those on the leaden pellets, and occurring on the cinerary urns found in tombs of the Slavonic race. This curious subject will be more fully brought forward in this Journal hereafter, with representations of the most remarkable types of the devices.

Mr. ALBERT WAY remarked that a large collection of perforated relics of lead, precisely similar in form and dimensions, had been submitted to the Institute, through the Rev. Canon Scarth, by Miss Hill, of Bath. These, however, are unquestionably Roman, and had been found at Brough in Westmoreland, near the Station *Verteræ*; they seem to bear marks of legions or cohorts, also human heads, birds, and singular unexplained characters. Mr. Roach Smith, by whom these relics (of which a very small number of examples had occurred elsewhere) have been published in the *Collectanea Antiqua* (vol. iii. p. 197, pl. xxii.; vol. vi. p. 117, pl. xvi., xvii.), is of opinion that they may have been attached to merchandise by a string passing through the pellet, which was then impressed with some distinctive device, the process employed being that commonly used in continental custom-houses even at the present time. If this probable explanation be admitted, the little *bullæ* brought under the notice of the Institute by their learned Lithuanian correspondent may have considerable interest, as connected with ancient commerce; and, if the devices should be satisfactorily explained, they may supply evidence of the lines of communication by which various commodities were transported into Europe at an early period. In the absence of certain information in regard to the intentions of the pellets found at Drohitchin and at Brough-upon-Stanmore, the numerous relics of a similar description, pierced transversely for attachment by a cord, and figured by Ficoroni in his work on "Piombi Antichi," are well deserving of notice.

The Rev. CANON SCARTH sent a notice of the discovery of two Roman

pigs of lead in the ancient bank of the river Frome at Bristol. One of these relics of ancient metallurgy had been purchased for the lead works at Redcliffe Hill, Bristol, the same establishment by which the leaden pig found near Blagdon in 1853, and inscribed with the name of Britannicus, had been acquired and presented to the British Museum. Mr. Scarth stated that its preservation had been due to the good taste and praiseworthy liberality of Mr. Arthur Bush, of the Redcliffe Company, and that gentleman, appreciating the historical interest of such relics, had again used his influence to rescue the specimen lately found, which he had sent under the obliging care of Mr. J. Reynolds, and presented it to the Institute. The inscription on this *massa plumbi* had not been satisfactorily explained, and Mr. Scarth promised a further account at the next meeting.

A special vote of acknowledgment was cordially passed to Mr. Bush for his courtesy and liberal feeling evinced on the present and also on the previous occasion.

The Rev. H. V. LE BAS, Vicar of Bedfont, Middlesex, gave some account of mural paintings found in August last during repairs of the church of that parish; he exhibited drawings on a large scale and photographs of these relics of early art. The subject of one of the paintings is the Crucifixion; the outline is distinctly visible, but the coloring is much faded. The other painting, of which a carefully colored fac-simile has been executed for the South Kensington Museum, represents the Day of Doom; it has suffered considerable injury. Some traces of a third painting, Mr. Le Bas stated, had subsequently been brought to light; it had been cut through in forming a hagnoscope.

The Very Rev. CANON ROCK observed that, from the style of treatment, the first of these wall-decorations may be assigned to the latter part of the thirteenth, or possibly to the first years of the fourteenth, century. The Saviour is seen affixed to the cross by three nails only, and the five wounds seem to be represented as "wells of mercy." The design of the other painting, the Last Judgment, may be regarded as of somewhat later date. The preservation of accurate fac-similes of all such relics of art in our country, as, in the present instance, had been effected through the vigilance of the officers of the Kensington Museum, is obviously most desirable.

Mr. H. W. KING took occasion to offer a short description of a remarkable relic of art representing the same subject as one of those exhibited by Mr. Le Bas, and we have been indebted subsequently to Mr. King's kindness for the following more detailed particulars:—"In 1844 a large mural painting was discovered in West Ham Church, Essex, which after a brief exposure was again covered with lime-wash. The only record is contained in an anonymous pamphlet published at the time, purporting to give a description of the picture; but, as the writer evidently did not understand the subject, and was unacquainted with Christian iconography, his account is inaccurate and of no archæological value. The renovation of the interior of the church in September last afforded a favorable opportunity for endeavoring to disclose the picture anew, and, under the superintendence of the Rev. R. N. Clutterbuck, of St. Mary's, Plaistow, it was successfully developed, though apparently in a less perfect condition than when exposed in 1844. Its situation was upon the eastern part of the wall of the North clerestory, and it extended as far as the second pendant of the roof, measuring eight feet in width by five in height. It does not appear that more than this was visible when previously exposed, but, from some

heads which were found on the South side of the chancel arch, it seems clear that this is only one wing of the subject, which probably extended over the East wall of the nave, and to an equal distance on the North and South sides. The whole subject undoubtedly represented the Final Doom. Upon the East wall was doubtless depicted our Lord. The right wing, which remained, represented the "Reward of the Righteous," and the left the "Condemnation of the Wicked," of which not a trace could be discovered. The picture upon the north wall, representing the "Resurrection of the Just," was executed, not in distemper, but in oil color, on very rough plastering, and covered also part of the stones of the arch; in one place, where a beam of the aisle-roof comes through the wall, it was continued upon the surface afforded by its section. It appears to be the work of the latter part of the fifteenth century, and was of inferior though somewhat elaborate execution. The upper part of the painting, extending as high as the wall-plate, and forming a background to the whole, was richly grouped though rudely executed tabernacle work, chiefly white shaded with grey, the windows and crockets strongly outlined in black; and some of the windows were colored red. From the general treatment, it seems clear that this tabernacle work is a conventional representation of the Heavenly Jerusalem. In the niches were several celestials, each wearing a circlet with a small cross over the forehead, and among them two of the heavenly choir playing upon gitterns. At the lower part of the painting, below the basement of the canopy, were two angels raising the righteous by the hand. They seem to have issued through the portcullised gates behind them. There are two of these gates at the lower part of the picture, beside that in the upper part of the canopy into which one of the blessed is entering. From one of them the angels who are assisting the risen seem themselves to have issued, and to be leading the righteous into the other. The risen saints were grouped along the line of the arch in that crowded manner usual, as Mr. Clutterbuck remarks, with mediæval limners. They are singularly irregular in size, the largest being placed just over the crown of the arch, and diminishing as they approached the caps of the columns. All were nude, with hands either joined in prayer or extended as if in admiration. Among the group were two ecclesiastics with red mitres, and a cardinal with a red hat. The writer of the pamphlet above referred to also noted a figure with a beard, which he supposed to represent a "monk, friar, or priest," and a royal personage wearing a crown of gold. The two angels mentioned as raising the blessed were larger than the other figures, and in pretty good preservation; their faces painted with care and not without dignity. They were vested in white albs without cincture or apparels. Close to the angle of the wall, where the painting was much mutilated, three demons were visible; one seemed to be falling headlong, as if to denote the abortive malice of the evil spirits unable to hurt the redeemed, now placed beyond their power. It appeared to the author of the pamphlet that the lower one had a person in his arms, as if bearing him away, with an expression of malicious pleasure in his countenance. The writer also conceived that he saw in this part of the picture the representation of flames in which others were tormented, which he supposed to be "the suburbs of Hell." If such existed it might possibly have represented Purgatory, but it was not apparent either to Mr. Clutterbuck or myself. The Doom of the Lost was no doubt depicted upon the opposite wall, upon the left hand of the Judge, and there was but the least possible space upon

the North side for the introduction of any other portion of the Judgment scene. Since I offered a brief unpremeditated description of this painting at the meeting of the Institute, the Rev. R. N. Clutterbuck has kindly placed in my hands the memoir which he has prepared for the *Journal of the Essex Archaeological Society*; and in the present report I have, with his permission, availed myself of his more detailed observations. As the picture was very imperfect and wholly unintelligible except to those who could reach it by a scaffold, Mr. Clutterbuck observes that he could not suggest any sufficient reason for its preservation, all the rest of the plastering being moreover to be removed for the purpose of pointing the inner masonry. There were indications that the whole interior of the church had been freely polychromed in distemper, but only one small portion of diapered pattern of late date could be copied. We are indebted solely to the exertions of Mr. Clutterbuck for the development of this interesting example of mural decoration."

Antiquities and Works of Art Exhibited.

By BRIGADIER-GENERAL LEPROY, R.A., F.R.S.—An unique steel head of a tilting-lance, of the time of Henry VIII., from the Royal Artillery Museum, Woolwich. It has been figured in this *Journal*, in illustration of a memoir by Mr. Hewitt. See vol. xxii. p. 295.

By Mr. REYNOLDS.—Iron spear-head found at Rushall, Wilts. It has been assigned to the Anglo-Saxon period.

By Mr. R. H. SODEN SMITH, F.S.A.—A gold ring set with a balas ruby cut in form of a prism and engraved in ancient Arabic characters with an inscription, interpreted by M. de Longpérier and also by Mr. Stanley Poole as signifying "Ahmed, son of Tamman." Mr. Poole, however, considers the first letter of the final word somewhat doubtful. The Arab character with floriated ornament in which the legend is inscribed belongs to the third century of the Hegira, the second half of the eleventh century of the Christian era. This engraved ruby is stated to have been found in Babylon during the expedition of Omar Pasha to Bagdad. The ring is now in possession of the Count Benedick Iliniski, by whom it was entrusted to Mr. Soden Smith. It had been bequeathed to the Count by his cousin, Iskender Illai Pasha.—A massive gold ring of English work, of the late Gothic period; it is set with an amethyst, the shoulders of the hoop are ornamented with pierced quatrefoils.—Pair of book-clasps of silver-gilt filigree ornamented with enamel; probably of Southern Russian workmanship.—Sword-guard and pommel of chiseled steel gilt, the pommel in form of a grotesque figure. Flemish work, seventeenth century.

By the Rev. J. HALSTONE, by permission of Mrs. Greenwood.—A massive betrothal ring of silver parcel gilt, the hoop fashioned with two hands conjoined, and inscribed on the outside with the *posy*, in Old English letters,—*nul. si. bien.*—Date about 1400; weight 124 grains. The ring was found August, 1865, at a depth of nearly eight feet, in digging a grave at Gains Colne, Essex, for the interment of the late Rev. J. Greenwood, D.D., Rector of Colne Engaine.

By the Very Rev. Mons. VIRTUE.—MS. Psalter of the thirteenth century, considered to be the work of an English scribe. From the occurrence of the dedication of the church of Orpington, Kent, amongst annotations in the calendar, it has been inferred with much probability

that the MS. may have belonged to some ecclesiastic, or other person connected with that place.—A richly embroidered chalice-veil, of English workmanship, date about 1600, and displaying the symbols of the Passion with other sacred devices.

By the Rev. MACKENZIE E. C. WALCOTT, Precentor of Chichester.—Eight leaves of a French MS. of the thirteenth century, portions of a poem. They were found in some French music books in the Chapter Library at Carlisle.

By Mr. NEWMAN.—Two sculptured mirror-cases of ivory, date about 1350. A Spanish work in terra-cotta, the head of a cherub; date, sixteenth century.

MEDIEVAL SEALS.—By Mr. M. HOLBECH BLOXAM, F.S.A.—Silver matrix of a seal of the Convent of Austin Friars, or Friars Eremites of the Order of St. Augustine, founded, probably in the early part of the fourteenth century, at Ballinrobe, on the river Robe, in the county Mayo.² It was purchased by Mr. Bloxam, at the sale of ancient relics collected by the late Mr. T. Crofton Croker, F.S.A., dispersed after his decease in 1855. The matrix consists of a massive oval disc of metal, measuring somewhat less than $1\frac{1}{2}$ inch by $1\frac{5}{8}$ inch, and nearly $\frac{3}{8}$ inch in thickness. This disc is possibly of lead cased in silver. A handle of unusual fashion is riveted on to it, formed of silver plate, terminating in a loop for suspension, to which three small crosslets are attached around its edge. The device is a heart transfixd by two arrows in saltire. The legend is as follows:—SIGILLVM : CONVENTVS : ORD'IS : ERIMITT : S. AVG : BALENROB. The last word is introduced in the field of the seal and above the heart. The seal is evidently of very late execution. It has been suggested by the Rev. James Graves, Secretary of the Kilkenny Archæological Society, that it may have been provided about 1642, when probably Ballinrobe, in common with other monasteries in Ireland, was reoccupied. Mr. Graves observes that he has seen many conventual seals of that period very similar in character to that in Mr. Bloxam's possession. The matrix exhibited has been noticed in the *Archæologia*, vol. xviii., p. 438, an impression having been exhibited by Mr. S. Lysons in 1815. The owner of the seal at that time is not mentioned. It subsequently belonged to Mr. J. H. Hearn, an antiquary in the Isle of Wight, by whom it had been purchased at Southampton.

December 1, 1865.

The MARQUESS CAMDEN, K.G., President, in the Chair.

The President announced that he had received a gratifying communication from the Hon. C. B. Phipps, intimating the gracious pleasure of the QUEEN that the meeting of the Institute to be held in London should be announced as under the special patronage of Her Majesty.

A memoir was received from Mr. JAMES BRADBURY, of Huddersfield, describing the excavation of Roman remains at Slack, near that town, on the supposed site of *Cambodunum*. The exploration was undertaken in

² Dugdale, *Mon. Angl.* vol. vi. p. 1590, edit. Caley; Archdall, *Mon. Hib.* p. 494; Stevens, *Mon. Hib.* p. 327. This convent was probably that mentioned in

1837 in the register of the Dominican Friary of Athenry as "*Monasterium de Roba*."

September last, under the auspices of the Huddersfield Archaeological Association. Much interest had also been taken in the work by the Rev. James Hope and other members of the Philosophical Society at Halifax. Slack is situated in an elevated position, about $4\frac{1}{2}$ miles West of Huddersfield, on an old road to *Mancunium*. About forty years since, the attention of antiquaries was excited by the discovery of a small hypocaust. Recent excavations have brought to light two similar relics of Roman construction, one of them measuring 24 feet by 20 feet, the vestiges, doubtless, of a building of importance. Human bones, coins of Vespasian and Nero, ornaments, and pottery, had been found; also a mass of lead ore, about 250 lbs. in weight. These remains appear to indicate the site of baths; and the latest discovery has exposed the *frigidarium*, or cold bath, solidly constructed of concrete, with the usual arrangements for the supply and escape of water. The investigation is in progress, and it has been regarded with interest as bearing on the disputed question of the position of *Cambodunum*. Mr. Bradbury cited the dissertation by Mr. Watson, read nearly a century ago before the Society of Antiquaries. Doncaster had been suggested as the probable site of the Station; but Whitaker, in his History of Manchester, entered into the arguments that had been advanced, and he had arrived at the conclusion that the position is probably at Slack, where he pointed out an area of about twelve acres within which Roman relics were found in profusion; also an altar there occurred, inscribed to Fortune by a centurion of the sixth legion; and other inscribed stones have been disinterred. Mr. Bradbury promised to give further particulars of these explorations in the West Riding. The site was pointed out as debateable ground by Mr. Newton, in his Map of British and Roman Yorkshire published by the Institute in 1846.

A memoir by J. H. WALKER, Esq., M.D., on the Roman Hypocaust discovered at Slack, has subsequently been published in the Transactions of the Huddersfield Association, accompanied by three illustrations that show the construction of the work, and the skilfully adapted arrangements of the *suspensura*.

Mr. OCTAVIUS MORGAN, M.P., offered some observations on the interest associated with all evidence of the appliances of Roman luxury in Britain. He had made successful excavations at Caerwent, and brought to light a very complete series of bathing-rooms, including the *tepidarium* and the *frigidarium*. The bath itself was there heated by the fire, so that it might be described as at once boiler and bath.

The Rev. B. HUTCHINSON, Vicar of St. Michael's at St. Albans, gave a short account of the curious vestiges of early architecture in his parish church, now in decayed condition. That venerable fabric has been comparatively neglected, on account of the greater attractions of the Abbey Church. It is well deserving, however, of notice and of preservation, as an example that retains portions of which the date may be ascertained. The church presents curious constructive features,—flint-work compacted together by wall-tiles, doubtless obtained from the wreck of the Roman city within the area of which the church was built. Its age dates from pre-Norman times. We learn from Matthew Paris that Ulsinus, seventh Abbot of St. Albans, in the tenth century, was a great benefactor to the place; that he augmented its population, and erected three churches, of which St. Michael's was one. Mr. Hutchinson gave a few particulars regarding the additions and re-constructions, which the church has under-

gone at various periods. These interesting notices were accompanied by a minute report drawn up by Mr. Gilbert Scott, at the request of the parochial authorities; his examination of the dilapidated fabric has aroused well-timed exertions for its preservation. The visitor who may be attracted to that ancient church to admire the monumental statue of Lord Bacon, one of the finest portrait-effigies of its period, will no longer have occasion to regret the neglected condition of the structure. More than £2000, including a liberal contribution of £500 from the Earl of Verulam, have been already expended on works of urgent conservation. The completion of the undertaking demands aid from those who value early architectural remains. The ruin of the fabric reared on the work founded by Abbot Ulsinus, has, however, been arrested. Mr. Hutchinson described windows of early character and other features heretofore concealed, that had been recently brought to light. He expressed the wish that some archæologists might be attracted to the spot, through whose knowledge of ecclesiastical antiquities certain particulars would doubtless be satisfactorily explained. The recent discoveries had become casually known to a distinguished antiquary, on a visit to St. Albans, Dr. Birch of the British Museum; at his suggestion they were brought under the notice of his friends the members of the Institute.

Mr. CHARLES TUCKER sent a notice of Roman relics found at Exeter. He wished to point out an erroneous statement lately made in the local and other papers regarding the alleged discovery of a Roman tessellated pavement during the demolition of the church tower of St. Mary Major, in Exeter. The tower, needlessly sacrificed through recklessness of innovation which could not be too strongly condemned, had been traditionally supposed to occupy the site of a Roman pharos. No mosaic floor had, however, been brought to light. A few decorative pavement tiles, such as were commonly used in mediæval churches, had occurred amongst the débris of the ancient fabric, the wanton destruction of which had been a subject of regret to local antiquaries; one of these tiles displayed the bearing of the De Clares, Earls of Gloucester. Numerous Roman vestiges, coins, ornaments, pottery, &c., were constantly disinterred at Exeter, proving the extent of Roman occupation within that city; the latest discovery occurred in digging foundations for the museum to be erected as a memorial to the Prince Consort; many antiquities, such as Samian ware with other Roman remains, were found on that occasion, some of them at a depth of ten feet below the present level of the street. Amongst the Samian fragments Mr. Tucker noticed several bearing potters' marks; and of these he sent impressions, of which one seems to give the inscription, M. F. GEMIN. M. The late Lord Braybrooke has noticed GEMIN. F. and GEMINI. F. on Samian ware found in his excavations at Chesterford; and in the list given by Mr. Roach Smith in his *Roman London*, p. 104, occurs GEMINI. M.

Mr. E. SMIRKE read extracts from a Roll found by Mr. Burt among records of the Court of Exchequer, and relating to the burning of lepers in the reign of Edward II. in Jersey. His observations on this curious subject have been printed in this Journal, vol. xxii. p. 326.

Mr. SPRENGEL GREAVES, Q.C., remarked, that in the unusual case to which Mr. Smirke had called attention, it may be inferred that the lepers had suffered the penalty either of treason or felony; otherwise their goods would not have been forfeited to the crown, as appeared by the document

in question. It is evident by ancient records that in the thirteenth century criminals were commonly executed by the *furca*, or gallows; burying alive and drowning were, however, not uncommon punishments, and it appears by the Custumal of London, about 1320, that felons were drowned in the Thames.

Some additional particulars were communicated regarding the pig of lead found at Bristol, and presented at the previous meeting by Mr. Arthur Bush. The Rev. Canon Scarth expressed his opinion that the Emperor designated in the inscription was Antoninus Pius, who succeeded Hadrian A.D. 138. In this conclusion the learned writer on Roman Epigraphy, Dr. MacCaul, of University College, Toronto, concurs with Mr. Scarth; no pig of lead of that period had previously been found. This interesting addition to the evidence regarding Roman metallurgy will be more fully noticed and figured hereafter in this Journal. With the sanction of Mr. Bush, through whose praiseworthy exertions it has been rescued from the furnace, it will be deposited with the series in the British Museum.

The Rev. J. FULLER RUSSELL, B.D., called attention to the threatened destruction of the sculptured rood-screen in the Priory Church at Christchurch, Hants, which has been figured, from a drawing by Mr. Ferrey, in this Journal, vol. v. p. 73. A remonstrance addressed by the Earl of Malmesbury to the daily papers was read, and also a statement by Mr. Ferrey, author of the Architectural History of the Church. Mr. Burt informed the meeting that the well-timed appeal by the noble Earl, who resides in the ancient Grange of the Prior at Heron Court, had arrested the reckless innovation of modern taste. Mr. Ferrey reminded the Institute that their memorial, in 1847, had happily averted a proposition to destroy the screen, which has lately been menaced anew through the caprice of injudicious promoters of a scheme of improvement, such as has frequently proved more injurious to monuments of ecclesiastical architecture than were even the troopers of the Civil Wars. The circumstances of the previous appeal for the preservation of the screen are fully stated in the report of the meeting of the Institute, January 7, 1848, given with a letter addressed to the Society by the Earl of Malmesbury, who is the owner of a portion of the church. See the "Proceedings of the Institute," in the concise abstract at that time issued to the members, p. 13.

After some discussion it was proposed by Mr. Octavius Morgan, M.P., and seconded by the Very Rev. Canon Rock, D.D., with the unanimous assent of the meeting, that a remonstrance deprecating the destruction of the screen, as now for the second time projected, should be addressed to the Committee for the "Restoration" of the Priory Church.

Antiquities and Works of Art Exhibited.

By Mr. HENDERSON, F.S.A.—A Persian hunting-horn or oliphant of ivory, sculptured with representations of animals, foliage interlaced, and other elaborate ornaments.

By Mr. C. BOWYER.—The Blessed Virgin with the infant Saviour, an Italian work of art in *gesso*.

By Mr. W. J. BERNHARD SMITH.—A double-edged blade forged at Solingen, and mounted with a cross-guard of Indian work of russet steel

inlaid with gold.—A small cross-bow, probably for a lady's use, the stock inlaid with grotesque ornaments in brass.

By Miss FARRINGTON.—Drawings of a singular low arch, three feet from the ground, in the exterior north wall of Leyland Church, Lancashire. It was suggested by Canon Rock, that this curious feature of church architecture may have been connected with the dwelling of an anchorite attached to the church.

A valuable collection of early documents relating to Staffordshire and Shropshire, and some parts of North Wales, were sent for examination by Dr. Kendrick, M.D., by permission of Mr. Whitehall Dod, of Llanerch Park, Flintshire. They included various evidences of curious interest, accompanied by several remarkable seals, especially the seal of John de Verdon, appended to a grant of land in Alverton, near Cheadle; the seal of Thomas Talbot, in the reign of Henry V., attached to an instrument which relates to his lordship of Wrockwardine, Salop; the seal of William of Child's Ercall, in that county; that of William de Calverhall, near Wem, t. Edward II., also a curious seal of Sir Thomas Beek, with other good examples.

February 2, 1866.

The MARQUESS CAMDEN, K.G., President, in the Chair.

The noble MARQUESS, in opening the proceedings, alluded briefly to the satisfactory prospects of the arrangements for the London Congress. He had received from the Lord Mayor and municipal authorities assurance of their friendly dispositions. The meeting would be inaugurated by an assembly in the Guildhall.

Mr. J. WEATHERHEAD, Curator of the Museum at Leicester, described some Roman remains lately found in that town, the *Ratæ* of Antoninus. In December a large glass vase had been disinterred at a depth of five feet in Oxford Street. It is of unusual form, hexagonal, with a single handle, and measures about nine inches in height. This sepulchral vessel claims notice chiefly from the circumstance that it contained a fluid, covering a deposit of burnt bones, and doubtless intended to preserve them from decomposition. On analysis, this liquid proved to be a saline solution with salts of lime; its preservation in a liquid state is doubtless owing to the circumstance that the mouth of the vase had been closed by a leaden cap, the lower portion apparently of some vessel, firmly fixed by hard cement. A piece of stone (syenite) had been placed upon this covering, but no other protection was noticed around the vase. The discovery of liquid under such circumstances is a fact of rare occurrence; in glass urns disinterred in Sardinia it is stated that a fluid has been found hermetically enclosed in the rim around the mouth. The hexagonal form is rare in glass urns found in this country; a Roman vase of that shape, but of larger dimensions than the specimen lately found, was brought to light about 1830, in the grounds of the Abbey at Leicester; it contained bones, and was perfect when disinterred. No local depository having at that time been established, this relic remained in private hands, and its fragments only were brought to the Museum in 1861. These examples of Roman glass found in England show considerable perfection in manufacture; such vases are mostly globular or four-sided, with ornaments occasionally, or

with names of the makers in relief upon the base. The vase found last year at Leicester bears a wheel-shaped device of which Mr. Weatherhead sent a cast; it was apparently a sort of "trade mark." A vessel of this description, of hexagonal form, is preserved in the British Museum; it was found at Barnwell, near Cambridge. Another, in unusual preservation, was dug up a few years since at St. Albans, with sepulchral vessels, in the churchyard of St. Stephen's parish. It measures fourteen inches in height, and is one of the most remarkable specimens of Roman glass discovered in Britain. The discovery is noticed, *Journ. Brit. Arch. Ass.*, vol. viii. p. 77.

Mr. STUART, Secretary of the Society of Antiquaries of Scotland, offered some observations on a series of diagrams of incised symbols that occur on the Pillar Stones of Scotland, which he exhibited to the meeting. Among them are figures of an animal like an elephant, serpents, crescents, circular discs, combs, mirrors, and other objects. These symbols occur in simple outline on the rude Pillar Stones, and the same figures are represented on the Cross Slabs, with the addition of intricate forms of ornament. In one case, some of the symbols have been found engraved on plates of silver which formed part of a great hoard of treasure dug up at Norries Law, in Fife, as described and figured, *Arch. Journ.*, vol. vi. p. 248. Drawings of all the symbols occur in the first volume of "The Sculptured Stones of Scotland," and they have been figured in this Journal, vol. xiv. p. 185.

The great peculiarity of the symbols is the fact that they are almost literally confined to that part of Scotland lying on the North of the Firth of Forth, which, in the days of Bede, was the Country of the Picts. No similar monuments are to be found on the West Coast, the Country of the Scots, and, with one exception, the symbols are unknown in Strathclyde and Galloway. They do not occur on the stones of the Celtic people of Ireland or Wales, and they are unknown to the antiquaries of Continental Europe and the East. From the frequent occurrence of the Pillars in connection with cists and mounds, Mr. Stuart had been led to attribute a sepulchral design to the symbols; and, while he believed that the examples on the rude Pillar Stones are earlier in date than the introduction of Christianity into Scotland, it seems plain that some of the Cross Slabs partake of the symbolism of both systems, and are the work of a transition period. As indicative of the early occurrence of the symbols, Mr. Stuart gave an account of a slab on which some of them were sculptured, and which was found between the covers of a cist containing an urn and a bronze dagger.

Mr. Stuart also exhibited drawings of figures sculptured on the walls of several caves in Fifeshire recently brought into notice by Professor Sir James Simpson. Mr. Stuart gave some historical details of these and other caves, as retreats of the Early Missionaries; and he pointed out that among the very miscellaneous groups of sculptures which occur on the walls (including crosses of various forms) there are many examples of those symbols which have hitherto been only found on the Pillars. The caves occur in the Country of the Picts as well as the Pillars; and in the sculptured caves on the South of the Forth, the peculiar symbols do not occur. As to the meaning of the symbols, Mr. Stuart regarded it as a doubtful and difficult question, from the want of any analogous examples with which to compare them. It did not admit of

any conclusive answer; but the subject would be discussed in a Chapter on the History of Symbols, in the second volume of "The Sculptured Stones of Scotland," shortly to be published.

Mr. Stuart concluded by suggesting the great desirability of a thorough examination of the many caves which are known to have been inhabited along the coasts of England and Wales and in which sculptures may occur.

Mr. Stuart took this occasion to bring also before the Institute diagrams of the Chambered Tomb in the great Mound of Maeshowe in Orkney. The mound is placed in the neighbourhood of the Stone Circles at Stennis, and near to it are many smaller barrows. It is about 300 feet in circumference by 36 feet in height, and is surrounded by a trench 40 feet wide. On its being excavated by Mr. Farrer, it was found that a passage 54 feet in length, formed of great slabs, led from the west side of the mound to a central chamber, also constructed of slabs, which were made to converge, so as to form a dome-shaped roof, after the plan of the "Pict's Houses" of Scotland and the Cloghauns of Ireland. From this chamber are three openings, giving access to three crypts. On the walls of the central chamber are many Runic inscriptions, the number of letters being about one thousand. Mr. Stuart regarded the structure as of a much earlier date than the inscriptions. It appeared to him to be of the same class as New Grange in Ireland, and he pointed out various analogies between these structures, as well as other Chambered Tombs in Scotland and Ireland, and on the Continent. As in the case of New Grange, the chamber of Maeshowe had been violated by the Norsemen, who probably carried off the valuables which it had originally contained. The Runic inscriptions, as interpreted by the late Professor Münch, are not of earlier date than the twelfth century; and, from a reference in one of them to "Jerusalem-farers," he was led to believe that the Howe had been plundered and the inscriptions written by a body of Crusaders, of whom Earl Ragnald was leader, and who wintered in Orkney in the year 1153. According to one of the inscriptions, the Norse people were anticipated by some one who carried off much treasure from the Howe, three nights before they invaded it; and, a few years ago, a great hoard was found some miles from Maeshowe hid in the sand, consisting of silver torques, brooches, ingots, and Saxon coins of the tenth century. The only remains found in the Howe were bones and teeth of the horse in large quantities, and a small piece of a human skull; in like manner, the only remains found at New Grange when it was opened in the seventeenth century, were the bones of animals, and pieces of deers' horns.

Lord TALBOT DE MALAHIDE made some remarks on the character and date of the chamber at Maeshowe, as compared with the mound enclosing similar remains at New Grange near Drogheda. Professor Donaldson and the Very Rev. Canon Rock took part also in the discussion on the questions suggested by Mr. Stuart's discourse. Lord Talbot, after commending the energy and intelligence shown by Mr. Stuart in investigating the long-neglected sculptured monuments of Scotland, expressed his opinion that the incised devices belong to two distinct periods, the earliest symbols probably being connected with sepulchral remains, the later, long subsequently, may have been influenced by some form of Christian belief.

Mr. SMIRKE, advertng to the remarks that he had offered at the previous meeting, in regard to the burning of lepers, said that the punishment thus inflicted had probably been contemporaneous with proceedings in France,

in 1321, when lepers were condemned for the alleged crime of poisoning wells in order to exterminate the Christian population, their agency having been thus employed by the Mahometan Princes of Spain.

Mr. SPRENGEL GREAVES, Q.C., concurred in the view taken by Mr. Smirke; he suggested that the record seemed to show a confession without trial. Lord Talbot, referring to the extraordinary delusion that had prevailed in France in the fourteenth century, in regard to the alleged poisoning of springs of water, observed that, in recent years, when a panic prevailed in Sicily through apprehension of cholera, it was believed that the malady had been caused by emissaries of the Bourbon family, and by the poisoning of wells through such agents, who were in many instances cruelly massacred.

Mr. HEWITT gave some remarks on a hand-mortar of the beginning of the seventeenth century, a rare weapon for firing grenades from the shoulder; it was brought, by permission of Brigadier-General Lefroy, R.A., from the Royal Artillery Museum at Woolwich.

A copy of the Survey of the eastern branch of the Watling Street in Northumberland, extending from Portgate on the Roman Wall to Berwick-on-Tweed, was presented. This Survey had been carried out by direction of the late Duke of Northumberland, by Mr. MacLauchlan, as a sequel to the Survey of the Roman Wall. Special thanks were voted for this valuable addition to the library of the Institute, the last evidence of the noble liberality shown by the lamented Duke in promoting the investigation of the earlier remains in the northern counties, and a memorable result of his encouragement of the study of National Antiquities.

Antiquities and Works of Art Exhibited.

By Mr. SODEN SMITH, F.S.A.—Roman pottery and a fictile lamp found near Dorchester, Oxfordshire, between the Thames and the Isis.

By Mr. W. J. BERNHARD SMITH.—Fragments of ancient pottery found on the surface in peaty soil, on part of the elevated plateau known as Sunningwell Plain, near Abingdon, Berks, adjoining Bruncombe Wood, the property of Sir G. Bowyer, Bart. These fictile relics are continually turned up by the plough, and are found every year in renewed abundance, though the fragments are of smaller size than formerly. No traces of a kiln have occurred near the place, but at the foot of the hill there is clay in abundance, and modern brick and tile works exist there.

By Mr. HENDERSON, F.S.A.—Kuttar daggers from Delhi and Oude, obtained from the collection formed in India by the late Earl Canning. These weapons were intended to be used with the left hand, whilst the right grasped the "tulwar."

By Mr. S. DODD.—Representation of the figure of Edward the Confessor, from the East window in the chancel of Romford Chapel, Essex, which is dedicated to the Virgin Mary and the Confessor. The chapel was built in 1407, and the painted glass appears to have been "renewed," according to an inscription placed under it, by the chapel warden, in 1707. Lysons (*Environs*, vol. iv. p. 193) states that in the East window of the North aisle were formerly the figure of the king with those of two pilgrims by whom the ring was brought to him, according to the legend related in this Journal, vol. xxi. p. 103. The figure of the Confessor has been engraved by James Smith.

By Mr. H. G. BORN.—Painting in the style of the Flemish school, the Virgin with the infant Saviour, surrounded by angels. This specimen of early art, executed on a gold ground, has been attributed to Mabuse.

By the Rev. MACKENZIE WALCOTT, B.D.—Silver reliquary in form of a scull, probably of Spanish work; date seventeenth century. It belongs to Mr. Ricardo Copi, of Deptford.

By Mr. LEWIS HIND, of Sutton, Surrey.—Series of photographic facsimiles of the illuminations in the Grimani Breviary preserved in the Library of St. Mark's, Venice. These exquisite miniatures, 110 in number, include chiefly the masterpieces of Memling, with paintings by his scholars and coadjutors, Gerard van der Meire, Anthony of Messina, and Livien de Gand.

By the Rev. JAMES BECK.—A decorative pavement tile, bearing a key ensigned with a coronet, possibly the device of the Poynings family.—Enameled locket, enclosing a portion of the hair of the Princess Elizabeth, daughter of Charles I., obtained when her remains were brought to light in Newport Church, Isle of Wight, in 1793.—Watch, of oval form, made by Bateman, a skilful artificer of the seventeenth century.—Portrait of a lady, by George Chinnery, an artist who first exhibited at the Royal Academy in 1791; he went to China, and painted miniatures for some years at Canton.—A design for the copper coinage of 1788.

Mrs. ALEXANDER KERR sent from Vienna for presentation to the Institute a series of photographs of examples of Mediæval Art preserved in that city.

By Mr. E. PEPPYS.—The "Original Declaration thankfully laying hold of His Majesty's free and general Pardon," published by the House of Commons, June, 1660, in pursuance of the King's sign manual issued at Breda.—Crown piece of Edward VI., 1551, and crowns of Charles I., one with the harp mark, the other with the star.

By Sir T. E. WINNINGTON, Bart., M.P.—A document of the time of Charles I., to which is appended an impression of the Great Seal in unusually perfect condition.

March 2, 1866.

The MARQUESS CAMDEN, K.G., President, in the Chair.

It was announced by the President that His Royal Highness the Prince of Wales had been pleased to intimate his consent to be announced as Honorary President of the Annual Meeting of the Institute to be held in London.

Mr. W. H. TREGELLAS read a memoir relating to the British fortress at Wimbledon known as Cæsar's Camp, and supplementary to that which he had communicated at a previous meeting. He placed before the meeting an accurate plan of the camp, from a recent Survey, which will be published with his memoir hereafter.

Mr. OCTAVIUS MORGAN, M.P., gave a description of a mosaic pavement found early in January *ult.*, at Caerleon, Monmouthshire, the Roman *Isca Silurum*. The design represents a labyrinth of rectangular form, resembling that of certain Roman mosaics preserved in Italy, Switzerland, &c., but no example had previously been found in England. The pavement had been removed with great care, under the direction of Mr. J. E. Lec,

F.S.A., Secretary of the Monmouthshire Archæological Association, in whose museum at Caerleon it has been deposited. This interesting addition to examples of tessellated floors in this country will be given in the publications of that Society. Mr. Morgan stated that the area of the chamber was about 13 ft. by 11 ft. The pavement lay in the churchyard at a depth of about 4 ft., on the north side of the church; the portions that are deficient must have been destroyed in early times in forming graves. According to tradition there had stood a Temple of Diana where the church was subsequently erected. The pavement is wholly of black and white *tesserae*, with the exception of a vase, introduced in the design, and decorated with a few red *tesserae*. The ground is white; the central part representing a labyrinth that measures 8 ft. square.

Major WRAY, R.E., sent some particulars of discoveries that have occurred in the course of recent public works in Portland; by his kind direction some of the relics found there were sent by Captain Tyler, the officer in charge in the island. Within the old entrenchment on the upper portion of the West slope of the Verne Hill, an interment was found; the body had been deposited without cremation in a cist formed of stone slabs set edgeways and covered with similar pieces of stone; no trace of any internal coffin was noticed, nor any weapon or ornament. Similar interments, as shown by diagrams submitted to the meeting, had occurred in the neighbourhood; in one instance a small cist, in which the corpse of an infant probably had been placed, was found lying E. and W., with the feet to the West; transversely, to the West of these three graves, there was a fourth placed N. and S., the feet to the South. These cists, which lay about four feet under the surface, were in each instance wider at the head than at the foot, and broken pottery was found adjacent to them. On the top of the Verne Hill was disinterred a large urn, laid on its side, on the breast of a skeleton found with two others huddled together in one cist formed of slabs of stone of an upper Portland bed; the slabs were placed in like manner as in the graves already noticed. The urn contained a small quantity of charcoal. On the South slope of the Verne Hill had been brought to light, within a circular stone wall of dry masonry, about 5 ft. in height and 6 ft. in diameter, a skull of an ox (*Bos longifrons*?), with decayed bones and a quantity of ashes. In course of works in that part of the island were also found a disc of Kimmeridge clay shale, the bones of a human finger with a spiral bronze ring, and a gold Gaulish coin. On the North Common, below the Verne Hill, had been found an entire skeleton, laid E. and W. in a cist of the same construction as the others, and covered by loose slabs, the whole being of shale: within this cist were iron nails, that had apparently been used in forming an internal coffin of wood, of which no other traces appeared. Several similar graves were likewise exposed to view in this locality; and, in excavations for drains on the North Common, pottery, Roman coins of Vespasian (?) and Antoninus, an enameled fibula, a bronze ring, a flat circular stone, possibly a quoit, and pieces of the horns of deer and other animals, cut off by the tool, were collected. These, with other relics, lay at a depth of about two to four feet.

We are indebted to Mr. JOHN EVANS, F.S.A., to whose courtesy and numismatic skill we have been often indebted, for the following particulars regarding the gold coin, already noticed, found a few years ago near the surface, on the War Department land. This piece is regarded by Mr.

Evans as Gaulish rather than British. The type is figured from a specimen found at Soissons by M. Lambert, Numismatique Gauloise du Nord-Ouest de la France, pl. vi., no. 5, and in the Revue Numism., vol. ii., pl. iii., no. 2. The nearest approach to the type, among gold coins claimed by Mr. Evans as British, is that given in his valuable work, pl. B., no. 9.

A silver penny lately found near the surface in Portland, and sent by Captain Tyler, was ascribed by Mr. Evans to Henry III.; it is of his Class V., with the "little old head" of that king. It was struck at London. The moneyer is TERRI ON LVND; namely, Terri le Chaunier, one of the "Custodes Monete" in 1222.

Mr. J. JOPE ROGERS communicated a notice of a mural grave, a stone coffin, and two effigies of persons of the family of Carminow, in Mawgan Church near Helston, Cornwall. In 1865 the South wall of the South transept, which usually has been known as "the Carminow Aisle," and was probably built about the end of the fourteenth century, was demolished and rebuilt. The wall contained a low arched recess, in which lay a stone cross-legged effigy much defaced; on the shield is the bearing of the Carminow family (*azure a bend or*). A female effigy, likewise of freestone, and supposed to portray the wife of the knight, lay on a ledge of the wall near to his memorial, the recess being scarcely of sufficient depth to receive a single figure. During the removal of the transept wall it was discovered that a carefully-built grave, four feet in depth, formed part of its construction, being carried down from the floor line to the foundations. This grave contained a perfect skeleton regularly laid out, the arms extended on either side; of the coffin a few fragments of ornamented metal only were found. The grave was covered by a stone coffin, which was built into the wall, having its base level with the transept floor; its form is that in use in the earlier periods. It had been split across and repaired, and was filled with rubbish, amongst which were three skulls, bones, fragments of alabaster and stained glass, the head of an iron hammer, and part of a rake. Two Nuremberg counters were found in the wall: of these, one bears, on the obverse, a figure seated at a counter-board and engaged in making a calculation; a book of accounts lies open at one end of the table: reverse, the alphabet in ordinary Roman capitals. Compare the type, dated 1553, given in Snelling's Jettons, pl. iv., fig. 14. The other is of an ordinary type; obverse, the imperial mound or Reichsapfel; legend, Hans. Schultes. zu. Nurenberg; reverse, three crowns alternately with three fleur-de-lys; legend, Glick. kumpt. von. Got. ist war. The Carminow family, Mr. Rogers remarked, is of great antiquity in Cornwall, having resided at Carminow in Mawgan parish, as supposed, before the conquest. The old Cornish historian, Hals, mentions a trial in the Earl Marshal's court, *t. Edw. III.*, in which Lord Scrope made complaint that his arms, *azure a bend or*, had been assumed by Carminow, who pleaded in defence the antiquity of his family and bearing, which, as he alleged, had been granted by Edward the Confessor to his ancestor, who was ambassador to the French king. It appears, however, that the Cornish squire was compelled by Scrope to distinguish his coat by a label of three points *gules*, as a difference.⁸ The elder

⁸ See Lyson's Cornwall, p. cxx., cxxv., and a pedigree in Polwhele's Cornwall, B. ii. 43. To some deeds in possession of Mr. Rogers of Penrose, the present

possessor of the Carminow estates, seals are appended; date about 1339—1361. The label does not occur on any of these seals.

branch of the Carminow family became extinct in the male line, on the death of Sir Thomas Carminow, about 1370, leaving three daughters and co-heiress. The old Cornish historian, William Hals, states that the family had their ancient domestic chapel and burying place at Carminow, of which the walls were to be seen, and where formerly stood the monuments of divers notable persons of that race: of these, early in the reign of James I., when the chapel at Carminow Barton was allowed to fall into ruin, the inhabitants of Mawgan, out of respect to the memory of those ancient gentry, brought from thence two, a man and woman, curiously wrought and cross-legged, and deposited them in Mawgan church. Davies Gilbert's Cornwall, vol. iii. p. 132. Mr. Rogers is inclined to regard the cross-legged effigy as the memorial of Sir Roger Carminow, who accompanied Prince Edward, afterwards Edward I., in the Crusade of 1270. Joanna, widow of Roger de Carminow, occurs in Cornish evidences, in 1285. There is, however, some uncertainty whether the crusader was named Roger, or Robert, as he is called by Hals. Carew mentions a Robert de Carminow, as holding a knight's fee in 1326, although not yet a knight; he states also, that in 1297, Sir Roger de Carminow was summoned to attend Edward I. The discrepancies occurring in the history of the ancient race will, we hope, be elucidated hereafter by Mr. Rogers, in a more detailed account of the effigies at Mawgan, which will be given in the Journal of the Royal Institution of Cornwall. In regard to the armour of the cross-legged effigy, as evidence of its date, Mr. Rogers pointed out its resemblance to that of the figure in the Temple Church, London, attributed to Gilbert Mareschal, Earl of Pembroke. It consists wholly of mail, with the exception of *genouillères* of leather or plate; the right hand grasps the hilt of the sword, the left holds the sword-belt, as if the weapon had just been sheathed; the hauberk is long, reaching nearly to the ankles; the head rests on a large helm, the feet upon a lion. The spurs are seen, and a cushion, or some ornament, projects at each shoulder; the shield is shorter than that of the effigy in the Temple church above mentioned, and the bend is distinctly shown; there is no fillet around the brow. These effigies are briefly noticed by Lysons, Cornwall, p. cccxxiv. The architectural features of the chancel and transept of Mawgan Church, as noticed by Mr. Godwin in this Journal, vol. xviii. p. 246, are "flowing Decorated," of the time of Edward III. A very curious "lychnoscope" in that structure has been described by Mr. Rogers, *ibid.* vol. xi. p. 33.

A notice of impressions of the following seals, by Mr. W. DE GRAY BIRCH, was read, and fac-similes taken by Mr. Ready were exhibited; these examples, hitherto undescribed, had been lately found in the British Museum.—An Irish Exchequer seal of the reign of Henry VI., of which an impression is appended to one of the Harleian Charters, dated 1442.—Seal attributed to Gilbert de Sempringham, founder of the Gilbertine, or Sempringham Order of Monks, and to be referred to the twelfth century.—The first Great Seal of Charles I., appended to a grant of special livery, dated December 5, 1626. It differs in many respects from the seal usually considered to be the earliest used by that monarch, and of which Sandford has engraved an example from a document dated 1627. These interesting seals will be noticed more fully hereafter.

Antiquities and Works of Art Exhibited.

By Major WRAY, R.E.—Ancient relics found in the Isle of Portland, near the Verne Hill; also diagrams representing various stone cists and interments there brought to light. Amongst the objects sent for inspection, through Captain Tyler, R.E., were a Gaulish gold coin, weight 91 grs., slightly scyphate in form, of which an account by Mr. Evans has been already given; a circular Roman fibula, diameter one inch, enriched with enamel of bright coral-red color, alternately with blue; and a silver penny of Henry III.

By the Rev. CHARLES LOWNDES.—Collection of Anglo-Saxon weapons and relics, spear-heads and knives of iron, bosses of shields, with other relics brought to light in a field on the property of the late Dr. Lee, at Hartwell, Bucks.

By the Rev. WILLIAM PIGOTT, Vicar of Whaddon, Bucks.—Drawings of mural paintings, found in Whaddon Church, near Stony Stratford. These relics of art were assigned by Canon Rock to the latter part of the reign of Edward III.

By Mr. HENRY SHAW, F.S.A.—Illuminated drawing, the portrait of Antony Kress, Provost of St. Laurence's, Nuremberg; he is represented kneeling before an altar, and supported by St. Laurence; there is a gorgeous bordure; in the lower margin are displayed the arms and supporters of the provost, very bold in design and elaborately finished. On the back of the frame is the following inscription:—"Antonius Kressivi Canonicus Ratisb', et praepositus s'ci Laurentii in Nurnberg. Obiit 1513, Aet. s. 35."

Archaeological Intelligence.

THE attention of archæologists has been invited by Mr. Frederick Boyle to the very striking character and interest of the sepulchral vestiges of the tribes by which Central America was occupied at a very early period. The numerous relics of antiquity, pottery, and other remains disinterred in explorations by Mr. Boyle and Mr. Jebb have been generously presented to the British Museum, with the valuable collection of drawings illustrative of their discoveries, and to which reference has been made in this volume. See p. 41, *ante*. An expedition is in course of arrangement for the ensuing spring under Mr. Boyle's direction, and it will probably leave England in April next; the difficulties and perils of the adventure are considerable; our friends are anxious to strengthen their party with some enterprising ethnologists. The objects in view are the sepulchres, antiquities, geology and botany of the Rio Frio district, at present absolutely unknown, and also the opening up of Costa Rica by a road to the Atlantic shore. The Rio Frio, it may be observed, flows into the Lake of Nicaragua about 200 yards from the spot where the San Juan river flows out of it; the country around the head waters of the Frio has never been explored, and hitherto the most boldly-organised expeditions have proved unsuccessful. Any persons who may feel interested in promoting Mr. Boyle's spirited enterprise, or may be disposed to participate in his examination of very singular vestiges of the early inhabitants of the Western Continent, are requested to communicate with him, at Bebington, Birkenhead.



Fig. 1. Signet of Q. Cornelius Lupus. On sard. In the Waterton Collection.
(Double the original size.)



Fig. 2. The Gallic Mars. From a Coin of Constantine.



Fig. 3. Combat between Romans and Gauls. From an Intaglio in possession of Mr. C. W. King.
(Double the original size.)

The Archaeological Journal.

JUNE, 1866.

SIGNET OF Q. CORNELIUS LUPUS.

By C. W. KING, M.A.

ANTIQUÉ gems, though chiefly valuable (in respect to their subjects) for their illustration of mythology, religious and poetical, often present us, besides, with important memorials of history preserved in them alone. Of such records, perhaps the most valuable that has ever come to my knowledge is the sard from the Waterton Dactylitheca, here figured of twice the actual size (fig. 1). This gem, somewhat exceeding the customary dimensions of a ring-stone, is engraved in a singularly bold and large manner, with two distinct devices occupying the field: a horse's head and neck, bridled and coupé (to use the heraldic term), and two large Gallic shields covered with barbaric ornamentation placed *en saltire*. In the field is deeply cut the legend Q. CORNELI LVPI.

That the shields can be no other than Gallic is certain, from their peculiar oblong shape, that perpetually strikes the eye in the various representations of armed Gauls or their spoils, so frequently affording the types upon the denarii of the Roman conquerors during the later ages of the republic. The *horse*, prancing at freedom in the field, was the established national emblem upon the autonomous gold coinage of the Gauls; one cannot help suspecting that in the design before us the *bridle* is purposely introduced to mark the subjugation of the fiery spirits who assumed him for their type. In their choice, it is not improbable that a rebus was intended upon the national appellation, either invented at the time or subsequently perceived and embraced—for *Gaul* is yet current in German for *horse*, though in a disparaging sense.

The duplication of the shields is intended, according to the

rule in such cases, to proclaim to the world that the trophy was won from *two* allied peoples of the Gallic stock. Now this circumstance it is, that, coupled with the family name of the owner of the signet, enables us to discover, with more than conjectural accuracy, the event commemorated by this remarkable intaglio.

As our starting-point, it must be assumed for certain that a member of the *gens Cornelia* would adopt for his own signet-device the glorious achievement of some ancestor of his own family, or, in preference, one wherein he had himself played the chief part—just as we know that the greatest of this very family, Sulla, took for his signet, first the “Surrender of Jugurtha,” and afterwards the “Three trophies” commemorating his victories over Mithridates, the crowning glories of his ever successful military career—an example subsequently followed by Pompey.

These two conditions bring the attribution of the particular event within very narrow limits of time, for, on referring to Livy for the victories illustrating the Cornelian name in connection with the Gauls, we find none with which all the particulars of our gem exactly tally, except the great battle won by the Consul C. Cornelius Cethegus over the confederate Insubres and Cenomani, upon the banks of the Mincio, in the year B.C. 197. Of the Celts, 35,000 men fell in the action, having lost it partly through the foul play of the Cenomani, gained over the night before by the promises of the wily Roman, who had vowed a temple to Juno Sospita in event of his success.

In the same campaign his colleague, Minucius, reduced the Boii, who had made common cause with the Insubres, but had deserted them before the battle for the sake of protecting their own territory. Amongst the prisoners was Hamilcar, a Carthaginian, the prime mover of the revolt against the Romans.¹

The duplication of the shields is conclusive evidence, as already pointed out, that the Gallic army was raised from two tribes combined, not from one singly. But for this restricting circumstance I should have assigned the occasion to the vastly more important victory gained some forty years later (B.C. 159) by another of the *gens*, the Consul P. Cornelius Scipio Nasica, over the single nation of the Boii.

¹ Liv. xxxii. 30.

Livy's account of the Boian spoils, as paraded through the streets of Rome upon his triumph, afford a truly interesting glimpse of the state of civilisation to which these Italo-Celts had thus early attained. In this triumph he carried in parade upon the Gallic waggons, the arms, the standards, and the spoils of every kind, gold vessels of Gallic make, and together with the prisoners of note were led in procession herds of the captured *horses*. The victor displayed 1,470 *torques* of gold, 245 pounds by weight of gold (coin); of silver, both in ingots and wrought up into plate after the native fashion, and by no means unskilfully, 2,340 pounds; and likewise of the coinage *bigati*,² 233 pounds by weight.³

"Lupus" was a favorite *cognomen* in the *gens Cornelia*: thus we find, in the year B.C. 156, P. Corn. Lentulus Lupus Consul, and he may very well have been son of the Q. Corn. Lupus, whose name is only preserved from oblivion by this gem. The latter was, in all likelihood, a near relative of the Consul Cethegus, and had held some important post under him in the army gaining that victory, the credit of which appears to have been in some measure ascribed to him by popular consent. Had it not been so, he would hardly have ventured to claim for himself so much of its glory as to appropriate its trophies for his own personal device. The peculiar execution of the intaglio also points to the same date as does its subject, for it exhibits the grandiose yet somewhat careless manner of the Campanian engravers, such as cut the dies for the first silver and gold coinages of the Republic.

Some observations upon the military equipment of the Gauls will not be out of place here, for the peculiar fashion of the shields upon our gem remarkably illustrates the description given by Diodorus Siculus of that portion of their defensive armour. Julius Cæsar has, strangely enough, omitted all mention of the arms or costume of his Gallic adversaries; he probably considered them too well known to his Roman readers to require any further notice in the sketch he gives of their institutions. But Diodorus, writing only a few years later, and in *Greek*, for the world at large, has fortunately, to gratify the curiosity of those more

² The primitive Roman denarius having for reverse a *biga*.

³ Livy, xxxvi. 46.

remote, gone into the minutest particulars of the subject. His account applies equally well to the period of our Lupus, for the Gauls had merely been rendered tributary to Rome by Cæsar's victories, continuing unchanged in everything else until after the re-organisation of their country by the Emperor Claudius.⁴ "They wear a curious kind of dress, dyed tunics ornamented with colours of every possible sort, and trousers, or, as they themselves call them, *braccæ*. Over these they wear, fastened by a fibula, large striped mantles (*sagi*), of a shaggy stuff in winter, of a smooth in summer, chequered all over in squares, of many colours set close together. For armour they use shields as tall as the man, and painted over after a peculiar fashion. Some of these shields have figures of animals in relief of bronze, not merely for ornament, but also for defence, and very well wrought. They wear bronze helmets, having lofty projections rising out of them, and which impart a gigantic appearance to the wearers; for upon some are fixed pairs of horns united, upon others the heads of birds, or of beasts, forged out of the same metal. They have trumpets of a peculiar form and of a barbaric fashion; these they blow and produce a hoarse sound, well suited to the din of battle. As for body-armour, some have shirts of iron chain-mail; the rest are content with that given by Nature, and go into battle naked. Instead of the sword (*ξίφος*) they have claymores (*σπάθαι*) hung from long iron or bronze chains, and depending along their right side. Their tunics they gird in with belts, overlaid with gold or silver. They carry spears, or, as they call them, *lances*, with heads of iron a cubit in length, and even more than that, the width of the blade being little short of two palms (6 in.). For their swords are as long as the darts used by other nations, whilst the heads of the spears they use are actually longer than other people's swords. Of these spear-heads some are forged of a straight pattern; others have a wavy indentation all along the edge, so as in striking not only to cut, but to mangle the flesh, and in the withdrawal of the spear to tear the wound."⁵ The last sentence but one has been entirely misunderstood by M. Desor, in his Memoir on the Lacus-

⁴ Who destroyed their nationality by making them all Roman citizens (he was their fellow-countryman in virtue of his

birth-place), and abolishing the caste of Druids.

⁵ Diod. Sic. v. 80.

trine Antiquities of Neufchâtel,⁶ and by some other writers following him. Not perceiving the drift of Diodorus's comparison, they, very needlessly, have recourse to the usual expedient of supposing a corruption, or interpolation in the text. But it is obvious to me that the historian here intends to exemplify his previous remarks, by comparing the Gallic spear-heads with the Greek and Roman swords, never exceeding eighteen inches in the blade, and the long claymore, of a yard and more in the blade, with the total length of the javelins of other nations, in which latter point a little rhetorical exaggeration may well be admitted. The cut (fig. 2), taken from a coin of Constantine (formerly in my possession), minted at Trêves, exhibits the Gallic Mars, equipped with the national *lancea*, with its enormously dilated blade and cuspidated barbs: a singular proof of the persistence of the fashion. And again, on many other coins of his sons,⁷ from the several Gallic mints, the cavalier on the obverse wields a lance fully two feet in the head, to judge from its relative proportion to the rest of the design. An incident in the boar-hunt, described by Apuleius, where the hero's horse is hamstrung by a blow from a *lancea*, informs us that this weapon was used for striking with as well as stabbing, like the mediæval Welsh glaive, or the Italian spontoon.

The exact arms described by Diodorus are often displayed upon the consular medals, notably upon the very common denarius of the family *Furia*, which exhibits a trophy formed of the horned helmet, the mail shirt, and the peculiarly-ornamented oval shield, together with the huge wooden trumpet (*carnynæ*), terminating in a horse's head. On another denarius (*Servilia*), a gigantic naked Gaul with the horns above-mentioned fastened upon his head, appears aiming, back-handed, with his long blade, his "swashing blow" at his diminutive Roman antagonist. This is the very scene so vividly portrayed by the old annalist, Claudius Quadrigarius, that the philosopher Favorinus declared he could never read it without becoming an actual spectator of the combat. The peculiar attitude of the Gaul, and his strange guard with his shield aptly illustrate the "status" and "disciplina sua" of that early author.⁸ The "Cornuti"

⁶ Les Palafittes du Lac de Neufchâtel, Paris, 1865, p. 79.

⁷ As well as of the Gallic tyrants, Magnentius and Decentius.

⁸ The whole passage is preserved by A. Gellius (ix. 13), and well deserves the encomium he passes upon it.

and "Braccati," as well as the "Celtæ," are named by Ammian as forming distinct corps in Julian's army, which had been chiefly levied in Gaul. The first appellative will at once indicate the origin of the unique *horned* head-piece in enameled bronze, found some years back in the Thames at Waterloo Bridge (now in the possession of the Conservators of the river), which, being mistaken for a mediæval relic, goes, in virtue of those appendages, by the name of the "Jester's Helmet." And, to conclude this part of the subject, I know of hardly any other historical monument due to the engraver's art more interesting than the spirited representation of a combat between Romans and Gauls, drawn by a contemporary hand, of which a very faithful copy is given in the woodcuts that accompany this memoir (fig. 3).

These unwieldy swords were made of untempered iron, as we learn from Polybius. "Their swords have only the first down-stroke, that is fatal; after this they immediately become unserviceable, bending both longways and sideways to such a degree that the second blow is entirely without effect unless the owners get the chance to retire, to press them against the ground, and straighten them with the foot. . . . The Gauls are only able to fight in loose order, because their sword has no point at all."⁹

The weapons¹ recently discovered in the fosses of the celebrated lines drawn by Cæsar around Alesia, afford a striking illustration of these passages of Polybius. Amongst them the swords are of incredible size according to Grecian notions, being of three feet and more in length. They are *pointless*, with their flat broad blades of the same width throughout; the body forged from a very stiff, or fibrous, iron ("très-nerveux,") hammered out lengthwise, on each side of which is welded a cutting-edge of *soft* iron, with the evident object that the owner might be himself able, after using it, to repair any damage done to the edge, by hammering it up again cold, exactly as our mowers do to their scythes when they get notched by striking against a hard substance.²

⁹ Polyb. ii. 33.

¹ See Les Armes d'Alise, Annales Archéologiques for 1864, giving photographs of the most noteworthy examples.

² This discovery supplies the etymo-

logy of "acciaio," and of "acier," *s/ecel*. In fact, *acies* must have been used in the same sense in classical Latin; for Pliny, to express the superiority of the Indian iron, terms it "mera acies," an

On the other hand, the few Roman swords found mingled with them are of less than half their measure, have a rib down the middle, giving them great stiffness, and taper gradually from the hilt to the point.

The lance-heads accompanying the swords in naturally much greater numbers, fully justify Diodorus's astonishment at their magnitude and strangeness. Some are two feet long, and therefore exceed in that respect the old classic sword; and, above all, exhibit that configuration of the edge he so particularly remarks, many having a *flamboyant* outline of extreme elegance; others, again, the well-known myrtle-leaf shape of the primitive bronze sword.

These iron lance-heads resemble their bronze predecessors of the same kind in having the centre-rib, the prolongation of the socket, forged *hollow* (a masterpiece of the smith's craft), a make inseparable from all spear-heads *cast* of bronze. This arrangement diminished the weight, though not materially the strength, of these otherwise unwieldy weapons, which may, as above remarked, be compared in their character to the *spontoons* of the fifteenth and sixteenth centuries. The metal of them, upon analysis, proves to be true *steel*.³

These Gallic lances, retaining the elegance of form derived from much earlier ages, strikingly contrast with the Roman *pila* lying beside them—ill-favoured, murderous-looking weapons, whose only object was to kill. These likewise can still be accurately described in the words of Polybius, to be found in his dissertation upon the military system of the Romans. They are long solid shafts of iron, of a spit-like pattern, clearly exemplifying Virgil's "*veru Sabellum*," and the term "*verutum*" given to the national weapon. These "*spits*" terminate in small solid pyramids (sometimes barbed at each corner of the base), sometimes in cones, or small heart-shaped points; the other end being a tang, either pointed or chisel-shaped, for sticking into the shaft, which to prevent splitting was secured by iron collars slipped over it. The latter demonstrate the diameter of the shaft itself to

expression exactly answering to our "*sheer steel*."

³ The reader desirous of further information on this subject will find numerous examples of these weapons belonging to

the Helvetic Celts of the same ages in Mr. Lee's valuable translation of Dr. Keller's treatises on the Lake Dwellings of Switzerland.

have been 28 mm., (about one inch) ; Polybius giving the same as *τριὰ ἡμιδακτύλια*, or $1\frac{1}{4}$ inch nearly.

It is curious to observe how completely the *pilum* went out of use under the Cæsars ; for, although it may be seen carved on certain monuments at Mayence of the reigns of Augustus and Tiberius, and has been found there in Roman sepulchres of the same date, yet on all public monuments of importance, like the triumphal arches and columns, the soldiers carry the long Greek spear, the Roman "hasta," which indeed from the beginning was the weapon of the second line in their battle array, hence termed "hastati." But, strange to say, in Byzantine times the old *pilum* reappears quite unchanged, in the distinctive arm of the Franks, the "angon," and secured to those barbarians the same success in war that in its pristine days it had brought to the Roman Legionaries. But so entirely obsolete had its form grown with their degenerate descendants, that Agathias describes it, and its direful efficiency, with unbounded wonder. His account, coupled with the specimens exhumed by the Abbé Cochet from the Merovingian tombs, leaves no doubt as to the identity of the angon with the former pilum.

It is almost needless to add, after what has been said above, that no bronze weapons accompany these relics of the times of Julius Cæsar. And, to go farther back, that the Gallic sword, at the time of their first irruption into Italy, was precisely the same as Polybius describes, is proved by the precautions taken by Camillus (detailed by Plutarch in the last chapters of his Life), in order to spoil its "soft-tempered and thin iron." Following his example, at the great battle described by Polybius in the chapter above quoted, the centurions armed the first line with the *hastæ* of the second, instead of their own missile pila, against which the Gauls bent their swords, and so being disabled gave an easy victory to the Romans. It is hard to imagine how these monstrous weapons so easily disabled in action, so useless at close quarters, came to supersede the elegant leaf-shaped, cut-and-thrust swords of the Bronze age ; the latter being certainly, both in material and figure, better edged and more efficient than their successors in untempered iron. Nevertheless the metal bronze for warlike purposes had gone out of use in Europe long before the period when authentic

history begins ; Hesiod speaking of its employment for such purposes as marking the Age of Fable ; and Lucretius following him to the same effect,—

“ Inde minutatim processit ferreus ensis,
Versaque in opprobrium species est falcis ahenæ.”

Though the Gauls had not in the age of Polybius learnt the art of tempering iron, yet their neighbours, the Celtiberians, were perfect masters of the secret when the Romans first came in contact with them, and borrowed from them the “Spanish sword” as the most perfect model of its class. Diodorus describes the Celtiberian sword as “so well hardened that nothing can withstand its stroke, neither shield, nor helmet, nor bone.”⁴ The process was simple enough,—to bury thin plates of iron in the earth until all the baser particles were consumed by the rust, and nothing but the pure metal remained.⁵ Later, Bilbilis was as famous for its sword-blades as Toledo now ; their excellence being ascribed to some peculiar quality in the icy water of its river, the Salo, as Martial informs us,—

“ Pugio quem curva signat brevis orbita vena,
Stridentem gelidis hunc Salo tinxit aquis.”

This consideration brings us to a curious subject, but to which antiquaries seem to have paid very little attention. Every intelligent reader of Homer must have been struck at the facility with which his heroes' spear-heads of *bronze* (for only arrow-heads with him, and that but rarely, are made of *iron*) pierce through the cuirasses and shields of the self-same metal. Though something must be allowed for the superior strength of the Heroic sinews, yet the poet, a true painter of nature, would not have so frequently repeated the incident as he does had it set at defiance the daily experience of his hearers. The mention of it, therefore, shows that some method of tempering bronze almost to the hardness of steel was then commonly practised. And this inference is supported by examples actually remaining to us from Homer's age, however remote we please to throw that age back. Sir Gardner Wilkinson obtained a bronze

⁴ V. 33.

⁵ A method still recommended for ob-

taining a razor of most exquisite temper when reground after disinterment.

dagger, sheath, hilt, and all in perfect condition, from a mummy-pit, which rivals steel in hardness, sharpness, and elasticity: the last a quality that, in such a composition, astonishes the modern metallurgist.

A century ago the attention of Caylus⁶ was arrested by this very subject, and he has detailed some interesting experiments he made as to the possibility of hardening not bronze, but the much softer metal copper. The question was first suggested to him by his observing the hardness and temper of some Celtic swords (but supposed by him, after the fashion of his times, to be Roman) found at Gensac, which, when analysed, proved to be nothing but copper with a small native alloy of iron, but no trace of tin. Upon this, on communicating with M. Geoffroi, the chemist, they found that precisely the same results could be obtained by combining copper with one-sixth of its weight of iron. Thereupon Caylus himself proceeded to try the result of tempering as well as of alloying copper, taking the first hint from a passage in Philo Byzantinus, where that writer directs the spring for a dart-thrower to be made out of pure copper mixed with one-thirtieth of tin, and afterwards well hammered when cold. Employing an intelligent brazier to carry out his theories, he was rewarded by finding he could make serviceable knives, scissors, and even razors,⁷ out of brass and copper (*cuivre jaune, et rouge*): he did not try *bronze*, which was unfortunate for the completeness of the inquiry. The result was obtained merely by dipping the articles red-hot into a mixture of soot, sal-ammoniac, urine, and kennel-water.

I have somewhere seen it stated that Chantrey once tried what cutting instruments could be produced out of bronze, and actually succeeded in making a bronze razor, wherewith he was able to shave "after a fashion." He discovered that the best proportion for the alloy was that found pretty constant in Archaic-Greek, Etruscan, and Celtic weapons, viz., one-tenth part of tin added to the copper.⁸ The metal was hardened by cold-hammering.

As for the case of surgical instruments found at Pompeii, all having their blades of *bronze* set in handles of iron, the

⁶ Given in his *Recueil d'Antiquités*, vol. i., p. 242.

⁷ To anyone acquainted with the non-cutting quality of French steel articles of the sort, especially as they were formerly

manufactured, this success will not go for much.

⁸ Feuerbach's analysis of the Helvetic bronze swords makes the proportion of tin vary from 5 to 25 per cent.

phenomenon may possibly be explained by a medical superstition, traces of which are preserved in the whimsical explanation the scholiast gives of *εὐήμων*, the favorite Homeric epithet of *χάλκος*, "*good for man*, because wounds made with that metal heal more readily than those made with iron." Though this "allopathic" property may have done something to retain the primitive metal in Roman surgical practice, yet, for all that, it must have been susceptible of a passable degree of keenness, otherwise, in spite of its reputation, it could not have maintained a place there, in an age when the best steel was as well known, and as commonly used as in our own. Another remarkable instance of the late use of bronze for cutting-instruments by the Romans, is known to myself: it is a pair of small shears, found at Caerleon, very neatly made, and retaining both their elasticity in the bend, and their keenness. See Mr. Lee's "*Isca Silurum*," pl. xxxiv., p. 66.

One is at first surprised to find that most ingenious invention of the armourer's, *chain mail*, enumerated amongst the accoutrements of so uncivilised a race as these Celts; but our wonder is increased by the circumstance that the Romans actually considered them as the true inventors of it. Varro, under "*Lorica*," states that it got its name from being at the beginning made out of leather, "*lorum*," but that the "*Galli-lorica*," formed of iron rings, had then completely usurped the appellation. In the fosses round Alesia, a few links still connected together suffice to attest its use at the time of the siege; but no considerable remains could be expected to have lasted under the circumstances, the ditches being filled with water, and the iron web by its nature extremely perishable.

The use of this species of defence can be traced back, obscurely indeed, to the remotest ages. There is even reason to suspect it was brought into Europe along with the Aryan immigrants from India, in which latter country it has ever been, and still continues, the sole kind of defensive body-armour known to the inhabitants. Although Homer never alludes to its use (his warriors, if not clad in plate, wear the cuirass of quilted linen, *λινοθώραξ*⁹), yet

⁹ The latter, as appears from Herodotus' description of the pattern one dedicated by Aniasis, king of Egypt, to the Lindian Pallas, Rhodes, was woven

heroes covered with what seems intended to represent a vestment formed of metal links appear on some Etruscan vases, and the archæologist, Virgil, could not have been without some ancient authority for making Æneas give as a valuable prize at the funeral games—"Loricam consertam hamis auroque trilicem"—"a coat woven out of rings, and fringed with a triple row of gold links." The Hon. R. Curzon states¹—"Some years ago I saw at Naples the fragments of an ancient Greek shirt of mail of rings." And Livy,² describing the equipment of the Samnites, in the early ages of the Republic, has the singular expression, "spongia pectori tegumentum," where *spongia* is always interpreted as a soldiers' cant term for a mail shirt, in allusion to its porous texture.

To come down a little later in Roman history, Athenæus,³ in describing the forces of Antiochus Epiphanes, mentions his 10,000 picked men, arrayed in mail shirts after the *Roman fashion*. "Ῥωμαίων ἔχοντες καθόπισμον ἐν θώραξιν ἀλυσιδώτοις." Although chain mail is not often represented upon Roman statues, yet I suspect it was all the while in general use under the Empire, but that the sculptor preferred exhibiting his heroes in the old Greek *thorax* of plate, imitating the exact conformation of the body underneath, on account of its superior picturesqueness. For if the latter kind of armour had been still in such general use as the monuments of the age would lead us to infer, why should Pausanias (in his description of the grand fresco by Polygnotus in the Lesche, Delphi) have taken so much pains to explain the nature of a suit of armour of this very make (*γύαλα*), stating in so many words, as the reason for his minuteness, that it had been for many ages out of fashion? Again, we should conclude that chain-mail had been the more usual form of armour in the time of Statius (the preceding century), for he notices amongst the other preparations for war⁴—

"ferrum—quod mille catenis
Squalentes nectat tunicas."

out of threads of many strands, the one in question having each thread composed of 365 others, all quite distinct.

¹ Arch. Journ., vol. xxii., p. 13.

² ix. 45.

³ iii. 22.

⁴ Achilleis, l. 431. His patron Domitian, however, preferred, says Martial, a novel and light yet arrow-proof cuirass made of scales of boar-hoof,—
"Texuit innumeri lubricus unguis aprī."

Nevertheless we have some Roman statues clad in mail-shirts. I have observed a bust of Pertinax so covered in the Galleria, Florence; whilst Constantine, full length, in the triumphal procession upon his arch, Rome, wears a long shirt of mail very accurately represented. And yet the *same* prince, in his imperial statue, now standing in the portico of the Lateran, is accoutred in the time-honoured and elegant Homeric *thorax*; a circumstance strongly supporting the theory above advanced. A sepulchral bas-relief in the Museum, Mayence, exhibits a Dalmatian cavalier in a mail-shirt with short sleeves: and in digging a well for a house in the Schillerstrass there (1857) was discovered amongst a quantity of Roman sandals, broken tools and weapons, &c., part of a mail-shirt of iron rings. The links are of unusually small diameter, not exceeding a quarter of an inch, and *not riveted*.

Ammian⁵ indeed describes the Persian cavalry, at the time of Julian's invasion, as completely covered with steel plates (*laminæ*) and wearing helmets fashioned into human heads with faces, only vulnerable in the perforations at the eyes and nostrils; whilst his contemporary, Heliodorus, gives a minute and valuable account⁶ of the construction of this armour by the linking together with rings of a number of such small plates (iron or bronze), a hand's breadth each in size, the very "teglated" armour⁷ of the Norman crusaders, doubtless borrowed by them from their Saracen opponents. Nevertheless in the fine bas-relief of the Takht-i-Bostan, the cavalier, probably Sapor I., sculptured in the preceding century, is armed in a long mail-shirt having the hood drawn over a skull-cap and falling over his face like a veil, serving thus for a vizor, exactly as still worn by the Circassians. Such mail-clad *cavalry* were first introduced into the Roman service by Severus Alexander, who, after his Persian campaign, where he had learnt their efficiency, formed a body of 10,000 of them. "Cataphractarios quos illi clibanarios vocant decem millia interemimus, eorum armis nostros armavimus," says the victor in his letter to the Senate.⁸ They speedily became the most important part of the army under the Lower Empire, like the *gens d'armes* in the mediæval service.

⁵ xxv. 1.

⁶ ix. 12.

⁷ Such as Milo of Gloucester, *temp.*

Hon. I., wears on his seal. *Archæologia*,
vol. xiv., pl. 47, p. 276.

⁸ Lamprii. 55.

Constantius II. had 30,000 cataphractarii at the battle of Mursa, who with their armour of proof and long heavy lances broke the brave Gallic legions of Magnentius.

I cannot but allude to that groundless theory broached by Sir S. Meyrick, and adopted without question, upon his authority, by many subsequent writers, our sagacious friend, Mr. Hewitt, perhaps, alone excepted, upon mediæval armour. It is the name "edge-mail" coined by him as the appellation of that seen upon knightly effigies previous to the time of Edward I., with his explanation that this kind of defence was formed by sewing the rings *edgeways* upon a basis of stout canvas. One would have thought that their own common-sense *might* have suggested to some at least of his readers that links thus arranged would not serve in the slightest degree to keep out the *thrust* of a weapon, or even the cut of one, should its edge chance to alight between any two parallel rows, in which case it is evident it would encounter no other resistance than that of the canvas substratum. But so it is; no one seems ever to have troubled himself to bestow a moment's thought upon the senselessness of such a contrivance, but each writer in his turn has gone on indorsing this self-condemning hallucination of the far from sagacious antiquary. Yet a vestment so composed would be much more due to the tailor than to the smith, who, as in Aldhelm's well-known enigma on "*Lorica*," and by all others after him, is ever named as the fabricator of mail-shirts. The author of this untested theory has taken infinite pains to collect passages from Norman writers to support it, but they are all totally irrelevant to the question.

His mistake seems to have arisen from his observing the parallel rows into which the surface of a mail-shirt naturally falls in all cases where its links are not *riveted*; and the regularity of which rows is again somewhat heightened in mediæval sculpture and drawing, for the sake of facilitating the work. It seems certain that, up to the end of the thirteenth century, the links were not *riveted*⁹ (a process to

⁹ A remarkable exception to this rule has lately been brought to light. In the find of arms and armour, dating from the Lower Empire (denarii of Severus occurred amongst them) extracted from the Thorsbjerg Moss, Flensburg, certain pieces of chain mail were met with, most

carefully riveted, some in alternate, some in every link. The author of the description, however, doubts of their being of equal antiquity with the rest: so the discovery can hardly be deemed sufficiently complete to decide the question.

be explained farther on), but merely bent up into rings. These rings were slipped, or *hooked*, one within the other, whence the propriety of the Virgilian term *hami* for them is obvious. In such a mode of uniting them into a continuous texture, it is evident that these rings must necessarily be of very stout wire, and of small internal diameter, otherwise the vesture would be liable to tear asunder by its own weight, as we see in the carelessly-wrought mail-shirts made in London for the African trade that occasionally find their way into sale-rooms in Town as the "armour of Runjeet Singh." A Circassian, however, once informed me that his countrymen still prefer the unriveted mail to the riveted, because it allows the musket-ball (if not repelled by it) to enter by its links opening before the blow, so that none of the wires are carried with it into the wound; that fatal objection to the use of chain-armour, and which banished it from the camps of Europe upon the introduction of hand fire-arms.

But this open-linked mail,¹ from the necessary stoutness of the wire used, was of enormous weight, as is shown by those rare examples still preserved; for instance, the suit now in the Hon. R. Curzon's armoury. The same thing is attested by the manifest efforts of the porters who carry the single suits suspended upon poles, two men to each, in the Bayeux Tapestry. Again, it is mentioned as a proof of William's gigantic strength, that, though himself so clad, he carried the mail-shirt of a disabled comrade, who, having fallen into a quagmire, was unable to extricate himself, until he was relieved by the Duke from his cumbrous envelope.

The links, the *hami* of the Romans, had, in making the shirt, each to be slightly opened, and so passed into its neighbour; the wire, being steel, closed firmly again of itself, and secured the continuity of the whole net-work. Hence Anna Comnena describes the armour of the Norman crusaders as a "tunic, ring interwoven upon ring," *χίτων, κρικὸς ἐπὶ κρικῶ περιπεπλεγμένος*: and this, be it observed, at a

¹ The Bedouin suits above alluded to weigh 40lb. each, to which weight must be added that of the thickly-padded tunic required underneath to prevent its rough texture galling the wearer. The suits, however, made for the Venezuelians, only

designed to keep out Indian flint-headed arrows, are as light as 25lb. But the Norman had to encounter the shock of the steel lance-head driven with all the impetus of his adversary's charge on horseback.

time (1081—1118) when, as Meyrick would make us believe, nothing was known but his "edge-mail" of rings stitched upright on canvas.

As the next step towards improvement, the junction of the wire in the links was secured by *brazing*, an addition supplying a vast increase of resisting force to the steely web; and of this an example is preserved in the shirt of Philippe le Bel, dedicated by him, about the year 1307, at the Cathedral of Chartres. There can be no doubt that in other cases, where the great additional labour and expense were not taken into account, other mail-shirts perhaps long before had had their defensive power similarly augmented.

This led to the final and great improvement in the manufacture of mail, viz., the *riveting* of every link at the opening, by beating out each end of the wire forming it, making one overlap the other slightly, piercing both, and driving a rivet through them, thus rendering the joint the very strongest place in the whole ring. By this ingenious invention, due no doubt to the sagacity of some Saracenic armourer, it was found that the mail-shirt could afford equal protection with half its former weight of metal, inasmuch as the diameter of each ring in it could now be doubled, all danger of their gaping being in this way obviated. In fact, we see the links now an inch in diameter over all, when made of stout wire as in the old Turkish, and about half that diameter when slighter wire is employed, the customary size for European suits. When woven after this fashion the whole texture lies flat upon the person, and no longer assumes the parallel-ridged surface of the former thick and rigid mail of unriveted links, to which indeed the name of "edge-mail" was in one sense applicable, for the small internal diameter of the rings, and their little play one within the other, rendered the thickness of the fabric exactly equal to the width of the links composing it.

Such armour, light and easily concealed under the clothes, long continued in use (although far from being musket-proof), but more especially as a "privy coat" against the dagger or pistol of the assassin.

"Had not my coat been better than thou deemedst,
That thrust had been my enemy indeed,"

exclaims Michael Cassio. Cellini and his apprentice Ascanio are equipped with such in their ride from Paris back to

Florence. Anselm de Boot, physician to Rudolf II. (1576-1612), writes of such armour (*sub* "Smiride") as being then common ;² and even as late as Elizabeth's times it occasionally appeared on the battle-field, Spenser describing the Irish "galloglasses" as wearing long shirts of mail: and, in the glorious old ballad of that reign "Mary Ambree,"—scene, the war in Flanders,—we have—

" She clothed herself from the top to the toe,
 In buff of the bravest, most seemly to shew :
 A faire shirt of mail then slipped on shee :
 Was not this a brave bonny lasse, Mary Ambree."

There is no saying when its use as a "concealed defence"—in the parlance of the day "a secret"—came to a complete end. Late in the seventeenth century (1657) Monaldeschi, Queen Christina's faithless and indiscreet paramour, was so provided when put to death by her orders in the garden at Fontainebleau, on which circumstance Ludolf, in his "Schau-bühne der Welt," published immediately after, coolly remarks that "he suffered very much, but it was entirely *his own fault*, for, wearing armour under his clothes, they were obliged to despatch him by stabs in the face and neck !"

² See the notice of this use of emery in De Boot's "Gemmarum et Lapidum Historia," lib. II., cap. cxx. De smiri lapidi. "Ad loricas annulatas emundandas et a rubigine liberandas vasi rotundo cum loriceis imponitur, quod frequenti rotatione commotum, ac hic inde jactata lorica, smirisque pulvere per an-

nulos sæpius decidente partesque illius affricante, ita lorica abstergetur ut nova videatur." In the time of Edward III., mail-armour was cleaned by rolling it in a barrel, with sand probably, or emery. See the "Dover Castle Inventories," Arch. Jour., vol. xi., pp. 382, 386.

THE ANTIQUITIES OF SOUTH JUTLAND OR SLESWICK.¹

By J. J. A. WORSAAE, Hon. F.S.A., Director of the Museum of Northern Antiquities at Copenhagen. Translated, with the concurrence of the Author, by
Ch. C. AUGUST GOSCH, Attaché to the Danish Legation.

PART II.—THE IRON AGE.

V. THE EARLY IRON AGE (from about 200 A.D.—400 A.D.).
—The date of the commencement of the Bronze age is everywhere shrouded in mystery, and it is only in the north of Europe that its conclusion coincides with the dawn of history. Well-known nations appear as bearers of the new civilisation, which characterises the Iron age. In the western, middle, and northern parts of Europe, we thus observe Celtic, Teutonic (German, Frisian and Scandinavian), Slavonic and Finnic (Lapponic) peoples succeeding one another. But neither the scanty written information nor the antiquities enable us as yet to determine whether all these nations lived there already in the Bronze age, or only arrived about the commencement of the Iron age. It is, however, scarcely probable that the Iron age, any more than the Bronze age, was ushered in by a complete extermination or expulsion of the mass of the population in the several countries, although in some places individual foreign tribes may have obtained dominion over the former inhabitants by their knowledge of iron and superior culture. In any case, it is beyond all dispute that up to the beginning of the Iron age not the slightest indication has been discovered of a peculiar German population of South Jutland or Sleswick. The monuments and antiquities, which still constitute our only certain source of knowledge, certainly prove that South Jutland shared the fate of the neighbouring parts of what we now describe as North and Middle Germany; but they demonstrate, at the same time, an equally complete uniformity with the other ancient Danish and Scandinavian countries—all the countries round the Baltic forming, as we

¹ Continued from p. 40, *supra*.

have said before, but one and the same well-defined group during the Bronze age.

Iron was known and used for more than a thousand years before our era in Egypt and Western Asia, from whence the Greeks and Romans seem to have derived their knowledge of it. From these nations it may have spread to the west and north of Europe, and the inhabitants of Spain, the south of France, and South Germany were, no doubt, acquainted with this metal several centuries before Christ. But it seems, strangely enough, to have taken a couple of centuries more before the knowledge and use of iron penetrated as far as Britain, North Germany, and the Scandinavian countries, where it was not in use till shortly before the beginning of our era. It was, at any rate, as far as we can judge at present, only by the great Roman conquests in Germany, Gaul, and Britain, at the beginning of the Christian era, that the victory of the civilisation of the Iron age was quite confirmed in the north. It is not probable that Denmark should have formed an exception in this respect, although we are as yet unable with certainty to carry back the Iron age farther than about to the year 200 A.C. The transition from the Bronze age to the Iron age appears at present far more abrupt than that from the Stone to the Bronze age, and constitutes upon the whole one of the most obscure points in northern archæology.

Numerous discoveries of Roman antiquities and coins in the eastern parts of Scandinavia (Bornholm Öland, Gothland), together with corresponding discoveries in the north-east of Germany, in Posen, Poland, and Hungary, have led to the belief that the communication between the Romans and the North was principally carried on by an eastern route, starting from the Roman possessions in Pannonia. Recent discoveries, however, have proved that this communication was maintained as actively by a southern and western route through Germany, Gaul, and Britain, where numerous large Roman colonies were found, and that the peninsula of Jutland, and particularly its southern part, was, as indeed might naturally be expected, influenced by the powerfully advancing Roman and New-European civilisation, at an earlier date and more strongly than most other parts of the North.

It is therefore, perhaps, not altogether accidental that

discoveries of antiquities, indicating a transition from the Bronze age to the Iron age, and exhibiting a mixture of objects belonging to these two periods, have been made not unfrequently in South Jutland, while in other parts of the North they have been very rare. In a sandy field near Smeaiby, between the towns of Flensburg and Sleswick, a great quantity of urns have been dug up from time to time, differing unmistakeably in form and substance from the ordinary urns of the Bronze age, but containing, as these do, burnt human bones and occasionally bronze objects of the kind peculiar to that period, or objects of iron worked in the style and taste of the Bronze age. Generally, however, these urns contain objects which directly point to the early Iron age—viz., iron knives and shears, buckles, tweezers, mountings of different kinds, either of iron or of the kind of bronze peculiar to the Iron age, which consists of copper and zinc instead of tin. Similar cemeteries, with burnt human bones in urns, are not unfrequently met with in South Jutland, in the flat fields or in natural hills, amongst which we may mention the beautiful Skjersbjerg, in the parish of Kværn in Angel, where bent and half-burnt iron swords, fragments of bronze mountings for scabbards, spear-heads, knives and shears of iron, gold pendants, beads of gold and glass, silver brooches, have repeatedly been found amongst the burnt bones in the urns; once a bridle-bit, and, on another occasion, a flint knife was found. Entirely corresponding swords and axes of iron, knives, Roman and semi-Roman *fibulae*, and other objects of bronze, silver ornaments, glass beads, &c., in some cases burnt with human bones and deposited in urns, have also very frequently been brought to light from artificial barrows in different parts of South Jutland. It follows that the same burial customs have been in use here in the early Iron age as in the next preceding late Bronze age, the only difference being, that in the Iron age the objects buried with the bodies were more frequently put on the funeral pile than formerly.

Similar graves and common cemeteries with burnt remains are met with in the ancient Vendic parts of North Germany (where they are often referred to a much later time under the name of Wendenkirchhöfe) and in England, where they seem to date from the Roman-British period (C. Roach Smith, *Inventorium Sepulchrale*, pp. xvi.-xvii). In North Jutland no

cemeteries of this kind have hitherto been discovered; but urns containing burnt bones with broken iron swords and other arms, as in South Jutland and in the ancient Vendic parts of North Germany, are not rarely met with in barrows, both in North Jutland, in Norway, in the Danish islands, and in Sweden as far as the lake of Mälär, and in all these places (as well as in South Jutland), the urns are occasionally Roman or semi-Roman bronze vases.

It appears, therefore, that the ancient custom of cremation was continued during the early Iron age, or at least during a great part of the same, in considerable districts of the north of Europe; at the same time, however, both single graves and general cemeteries in natural sandhills, containing whole skeletons, have been met with in several of these districts—viz., in North Jutland, in Skaane, and, most frequently, on the islands of Sealand and Fyen. In these cases the bodies have been buried in the ground a few feet deep, together with Roman and semi-Roman vases, saucepans and strainers, cups and drinking-horns (sometimes of glass), wooden buckets with metal handles and hoops, ornaments and coins of Roman emperors both of silver and gold, from the first Christian centuries, and occasionally, though not very frequently, swords and other objects of iron. Graves of this kind, indicating a return to the ancient custom of burying the dead whole (caused, perhaps, by the same new foreign influence which is expressed in the character of the objects found in the graves) have not been discovered hitherto, either in Sweden proper (though met with in Skaane), or in Norway, or in South Jutland, or in North Germany; but, in all these countries, both where cremation seems to have been the universal practice and where the dead were more or less frequently buried unburnt, purely Roman antiquities have been found in considerable number, both in the remains of destroyed—but not properly investigated—graves, and loose in the ground, as if accidentally lost. These antiquities are quite similar to those found in the cemeteries just mentioned, and a number have been found in South Jutland, as, for instance, a small bust of Jupiter in bronze, fragments of vases, cups, saucepans and strainers, brooches, spurs, coin from the two first centuries, etc. They are often found with other objects which can scarcely be considered Roman or even Romanised, and such a mixture of Roman and non-

Roman objects has been observed in a great number of finds outside the graves—which have been made in North Germany, and in all parts of Denmark, Norway, and Sweden.



Roman Spur, with iron spike, from Bodum.
Orig. size.



Roman Bronze cup, overlaid with silver from Forballum. $\frac{1}{3}$ orig. size.

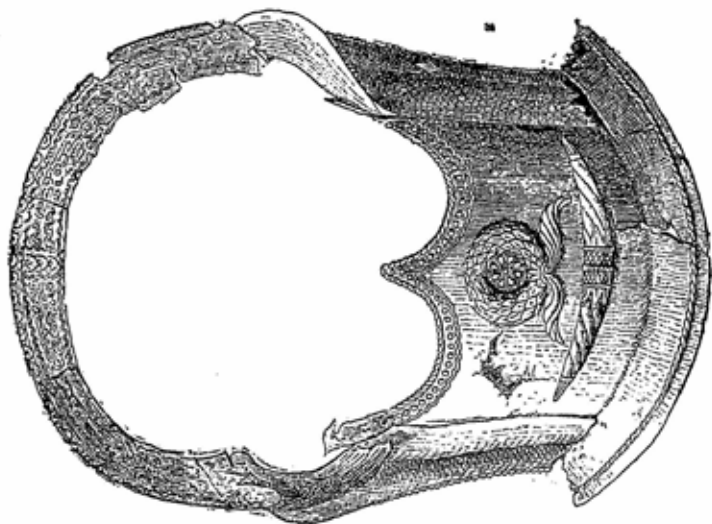
The Roman objects, however, some of which are inscribed with the trade-mark of the manufacturer, become rarer as we advance towards the North.

A further and very striking proof of an active communication between South Jutland and the Romans themselves, or nations nearly connected with the Romans, as early as the second or third century of our era, is afforded by the remarkable discoveries in the mosses of Nydam in Sundeved and Thorsbjerg in Angel. Careful investigations have shown that the great quantity of objects which were brought to light in both these localities, and which belong mostly to warlike equipment, had been originally deposited with intention and care in the mosses (which then, probably, were lakes), and that they must have been in an entirely useless condition when deposited, not only mutilated by use in battle, but purposely destroyed or spoiled, bent, cut, burnt, and half melted by fire, &c. With regard to the details of these finds, we may refer to Mr. Engelhardt's illustrated works, of which an English edition has just appeared,² and confine ourselves here to the general features of each deposit.

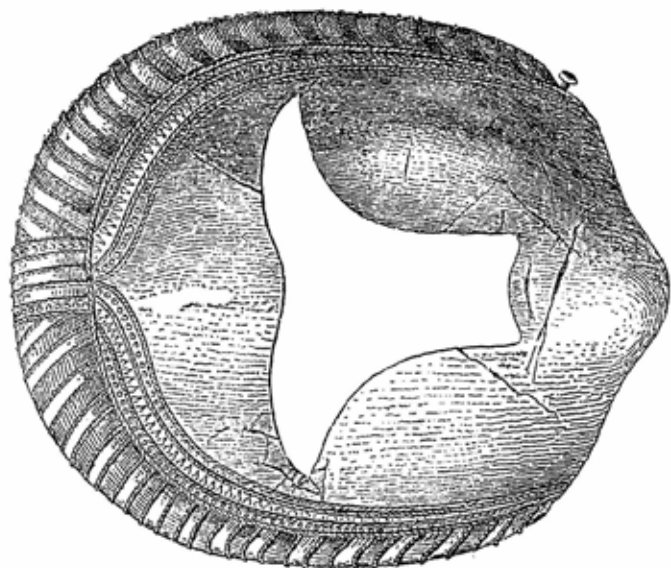
Thorsbjerg Moss occupies a small valley surrounded by hills, without any connection with the sea, from which it is about two English miles distant. It contained proportionally few objects of iron, much corroded and mutilated, mostly fragments of swords, spear-heads, &c., of good workman-

² C. Engelhardt: Denmark in the early Iron age. Williams and Norgate. 1866. London. 4to.

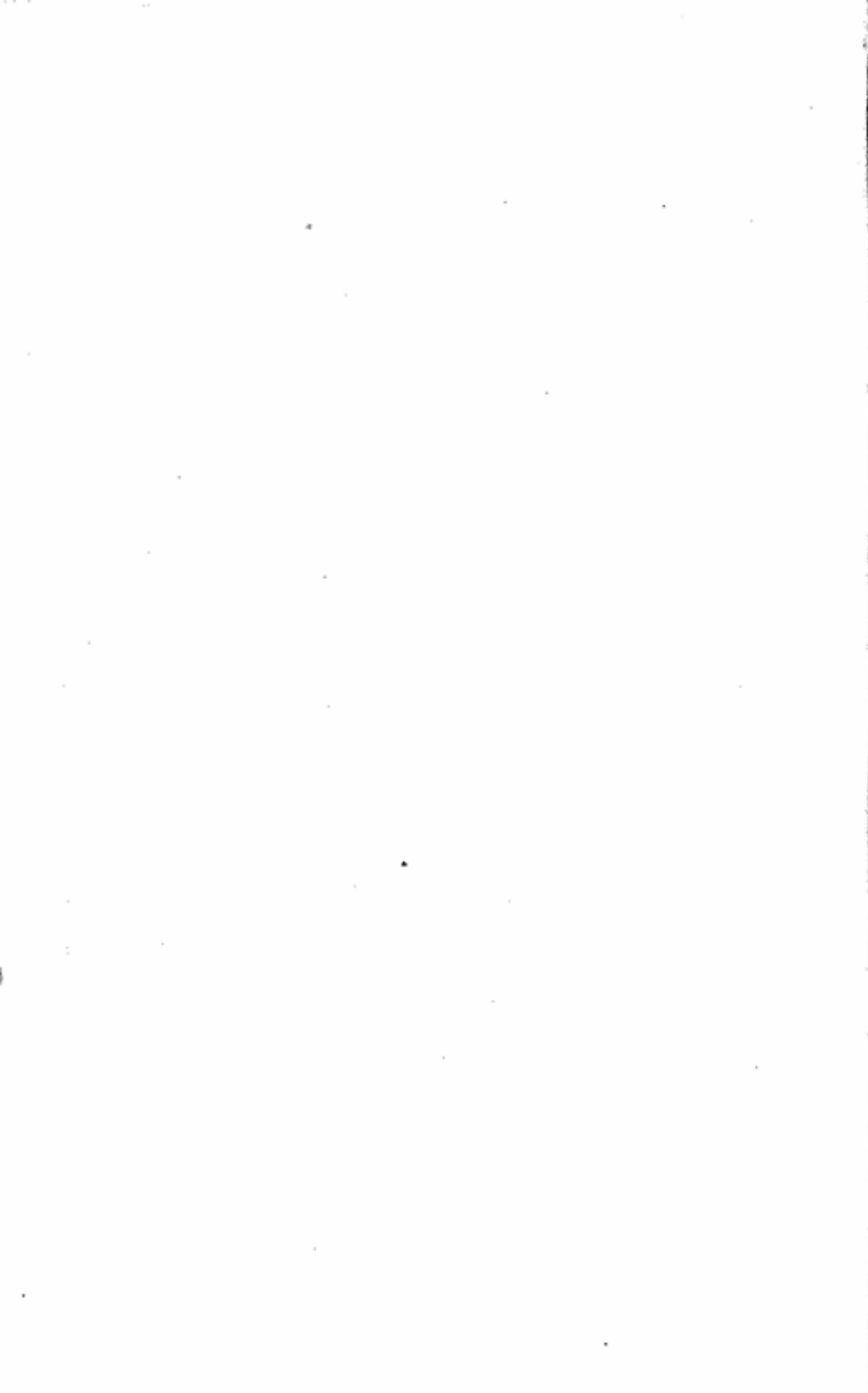
IV.—ANTIQUITIES OF SOUTH JUTLAND
(Early Iron Age.)



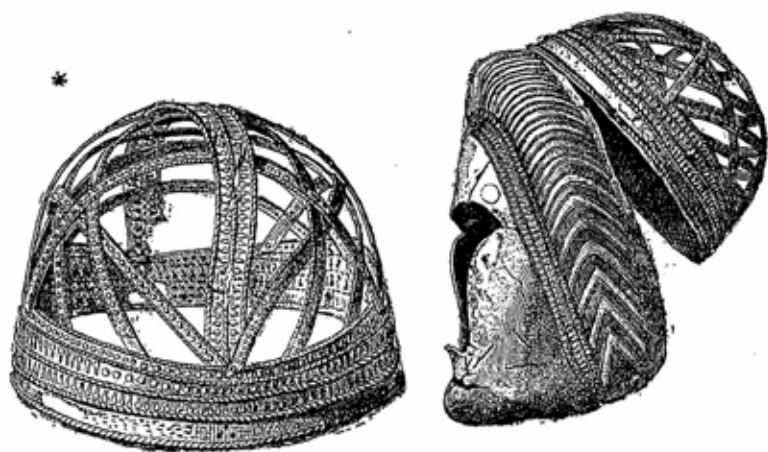
Roman helmet of bronze, found in the Thorsbjerg Moss.



Silver helmet, found in the Thorsbjerg Moss, front view.



ship, but a great many antiquities of bronze (copper and zinc), as well as of gold and silver, of which the costly and splendid objects used for the equipment of distinguished warriors attract our special attention. Complete dresses, with buckles, made of woollen material woven in elegant patterns, shoes or sandals with silver nails, were discovered here, as well as helmets of bronze and of silver overlaid with



Crown of a Silver Helmet, found at Thorsbjerg. g

Silver Helmet, found at Thorsbjerg.

gold; chain mail, with shoulder and chest-buckles decorated with gold and silver; remains of sword-hilts, scabbards, belts, and shields, similarly ornamented; wooden bows and spear-shafts, several feet long; besides remarkable metal mountings, occasionally decorated with precious metals, for harness, riding and driving reins, &c.; fragments of gold rings, ornaments, a die, draughtsmen, coins, but particularly numerous objects of leather, burnt clay, and wood, different kinds of vessels, baskets, tools, fragments of cart-wheels, rakes, tent-poles, &c., were discovered in this locality.

The Nydam moss, in Sundeved, opposite the island of Als, is distinguished from that of Thorsbjerg in the important feature of having originally been connected with the Als-sound, and it contained remains of three vessels, of which the largest is built for twenty-eight oars, and which appear originally to have contained at least the greater part of the objects found in the moss, the boats—or at any rate, the largest—having apparently been intentionally sunk by holes

cut in the bottom. The Nydam deposit was, besides, characterised in comparison with that of Thorsbjerg by its great abundance in elegantly manufactured iron objects, as, for instance, beautifully damascened swords, the hilts decorated with silver, spear-heads, arrow-heads, and axes. But although beautifully ornamented brooches, metal mountings, ornaments, and harness were not wanting in Nydam, this moss did not equal that of Thorsbjerg in the splendour of its contents of this class. For the rest, both finds are evidently quite similar and parallel in essential points; they must even have been very nearly contemporary, as the coins found in both places belong to the same period, the latest coin from Thorsbjerg being of the year 190 A.D., whilst the latest coin from Nydam is from 218 A.D. Most probably the objects were deposited a little before, or perhaps a little after, the year 300 A.D. Besides those on the coins, inscriptions on different objects were discovered, partly in Roman letters (some being Roman names, as "Ælius Ælianus," but others not Roman, perhaps Gotho-Germanic, as "Umorca," "Riccim,") partly also in those Runes, that were formerly erroneously described as Anglo-Saxon, but which now appear to have been in use at a much earlier period than was hitherto supposed, namely, more than a century before the Anglo-Saxon conquest of England. Both mosses contained several decidedly Roman objects, but still more semi-Roman, almost barbarian, which clearly prove themselves to have been manufactured by people which have been compelled to yield to the overwhelming power of Roman civilisation, and therefore tried to imitate Roman models, without, however, entirely relinquishing their own taste or old traditions.

The reason why so numerous and in part costly objects—many, too, of foreign origin—have been deposited with so great care in these two mosses in South Jutland at that remote period, is still shrouded in mystery. If, however, these two deposits were unique in their kind, or if such discoveries had been made only in South Jutland, it might always be considered an acceptable explanation that these objects were possibly derived from warlike expeditions of the natives to foreign countries, or, perhaps, rather from successful combats against invading armies or foreign tribes attempting to effect a settlement in the country. It might,

for instance, be conjectured that the victorious natives collected the arms left on the battle-field, and hid them for safety in neighbouring lakes.

But entirely corresponding hoards of antiquities, hidden or deposited in mosses in the self-same manner and apparently very nearly at the same time,—at any rate in the course of the early Iron Age,—have been discovered in several parts of North Jutland and the Danish Islands (including Bornholm), particularly on Fyen, where not less than three such antiquarian mosses are known, of which two,—Vimose and Kragehul, both without access from the sea,—are remarkable for the extraordinary quantity of antiquities found in them, and their surprising similarity in essential points to those found in Nydam and Thorsbjerg moss. The similarity often extends to the smallest details in the treatment, to which the objects had been subjected, and the manner in which they had been deposited; and the mosses in Fyen contain, besides, coins from the two first Christian centuries,³ and inscriptions in the oldest hitherto-known Runic alphabet, similar to those found in the mosses of South Jutland. It is evident that these finds are much too numerous, too uniform in their character, distributed over too large an area, to have originated in merely accidental circumstances. Continued investigations of the peat-bogs, which are in progress, will no doubt assist us in solving this problem. But even in the present state of our knowledge, it seems worth considering whether this careful deposition of articles of warlike equipment in the mosses may not have taken place in obedience to some religious custom, by which the victors were bound after the battle to sacrifice to the gods a part of the captured animals and of the other spoils, by sinking them in sacred lakes, which have now become transformed into peat-bogs. This hypothesis would explain, that in Nydam and other

³ All the Roman coins known to have been found in Denmark and properly examined—more than 800 pieces—date, with very few exceptions, from the time before 219, and have been found in very different places, sometimes in very large hoards,—once as many as 400 together,—but never in company with any other antiquities than those which I ascribe to the early Iron age. This class of antiquities and coins from the first two or three centuries invariably accompany each other, just as Byzantine coin always is

found together with antiquities characteristic of the first division of the late Iron age, and just as Arabic or Cufic coin is a constant element of deposits from the Viking period, or the conclusion of the late Iron age. Late West-Roman coin has very rarely been found in Denmark, the so-called "minimi" never, and the quantity of the coin discovered adds great force to the argument derived from their date (A.D. 1—219), as to the date of the "Early Iron Age" antiquities.

mosses, remains of animals have been found,—not whole skeletons, but certain parts, particularly horses' heads, sometimes with bits between their jaws; that several of the antiquities from the moss-finds have not only suffered injury in battle, but have evidently been afterwards bent and half-melted by (the sacrificial) fire; that they have been deposited with so great and evident care; and that they have been left untouched in so many places, although the fact of their immersion must necessarily have been known by many. This hypothesis would also receive support from the existence of reliable historical information to the effect that such a custom prevailed in the first Christian centuries amongst the inhabitants of Gaul, with whom the inhabitants of South Jutland, as of the other northern countries, may have had intercourse in different ways, and with whom they may have had in some respects common customs and habits, even if they were of a different race. Cæsar states, in his work, "De Bello Gallico" (Lib. vi., cap. 16, 17), after having mentioned the piety of the Gauls and their inclination for sacrifices, that "when they go into battle they usually promise to offer the spoils to the god of war. After the victory they sacrifice the captured animals, and the rest of the spoils is collected in some particular place. In many states large accumulations of such objects may be seen in sacred places, and it is rare that anybody so disregards religion that he should dare either to hide away any part of the spoil for his own benefit, or to possess himself of any part of the collected spoils, a crime, moreover, for which the hardest and most painful punishment is awarded." Besides this, a somewhat later author, the geographer, Strabo, states expressly that the Gauls used to sink treasures of gold and silver in sacred lakes. His account is as follows: "The report of Posidonios is more trustworthy. He says that the treasures found at Tolosa (Toulouse) amounted to 15,000 talents, which were hidden partly in safe closets and partly in sacred lakes, and this was unmanufactured gold and silver. The country being rich in gold and inhabited by a superstitious people, leading a parsimonious life, treasures had been collected in many places, and that these were left untouched was due in a great measure to the circumstance that the treasures of gold and silver were deposited in lakes. When the Romans had made themselves masters of these countries, they sold

the lakes for the benefit of the state, and many of those who bought them found welded lumps of silver in them. The temple of Tolosa was highly honoured by the neighbouring peoples, and was therefore filled with riches which many had dedicated, but which no one dared touch" (Lib. iv., cap. 1, §. 13). Diodorus Siculus also testifies (Lib. v., cap. 27) of the superstitious fear of the Gauls, which restrained them from touching the great treasures dedicated to the gods, in spite of their usual cupidity and love of display. Even as late as the sixth century annual sacrifices of clothing, linen garments, sheep-skins, cheese, bread, and wax cakes, were brought to a sacred lake in France (Dept. Lozère), and the sacrificial feast lasted three days, according to the testimony of the contemporaneous writer, Gregory of Tours (*De Gloria Confess.* cap. 2, in *Maxima Bibl. Patrum*, xi., p. 872). With regard to the Scandinavian North, we have ancient accounts to the effect that offerings to the gods took place near certain wells and waterfalls, into which the objects offered were thrown.⁴ It is true that these accounts belong to the conclusion of the heathen period; but, combined with the moss-finds of which we are treating, they may be looked upon as indicating that offerings to the gods in the north, as well as in other countries, were sometimes connected with sacred wells, springs, and lakes.⁵

In order to arrive at a true decision of the still open question of the real origin of the moss-deposits, and a proper estimation of the state of civilisation prevailing during the first centuries of the Christian era in the Cimbric peninsula and in the north generally, it is of the greatest importance to ascertain whether the antiquities found in the mosses are all of foreign origin and imported,⁶ or whether a part of them

⁴ See the Scholiast to Adam of Bremen *de situ Danie*, cp. 26, *Kjalnesinga Saga* 2, and *Landnámá*, iii. 17.

⁵ If it should be confirmed that these moss-finds are traceable to ancient sacrifices, the same explanation may perhaps apply to some of the large stores—dating mostly from the Bronze age—of bronze and gold objects, which are constantly discovered in our peat-bogs in such remarkable numbers. For it is not very likely that they should all have been lost or simply hidden there. At any rate, it seems to deserve attention that of the two antiquarian mosses in

Fyen, Vimose and Vilestøfte moss are very close to Odense (Odinsey, that is, Odin's island, or Odinsve, the principal place of sacrifice of Odin in Fyen). In Kragehul a piece of wood with runes, an angular piece of bone with runes, and some delicately made brass balances and weights have been found about 120 years ago. Might they not be the "Blotspaan" and balances for prophesying so often mentioned in the Sagas?

⁶ The mutilated state of the antiquities, and the circumstance that they have been found in so many places, which have no communication with the

may be supposed to have been manufactured by the inhabitants of the country itself.

It is then, first of all, to be observed that antiquities of exactly the same kind and of the same date as those from the mosses of South Jutland, including Roman as well as non-Roman objects, have been discovered, not only—as we have already stated—in other Danish mosses, but also in graves and loose in the earth in numerous localities all over the Cimbric peninsula, the Danish Islands, Norway, and Sweden; and the same is the case with the inscriptions in the oldest Runic alphabet. The inscriptions of this kind hitherto discovered in South Jutland, as well as in the other ancient Danish provinces, are engraved on loose objects, as, for instance, the remarkable golden horns found near Mögeltönder, a large golden ring from the neighbourhood of



Golden Half-ring, from Straarup. Two-thirds orig. size

Haderslev, and on some of the gold bracteates; and traces of the oldest Runic alphabet are perceptible in some of the inscriptions on monuments belonging to a later time, a kind of transition period. But numerous inscriptions on monu-

ments, are sufficiently strong arguments to refute entirely a theory started in Germany, and founded solely on the preliminary accounts of the Nydam deposit, viz., that they had been imported by way of sea, and the ships sunk in the harbour. The author of this theory has, however, the excuse that, at the time he proposed it, Mr. Engelhardt's full description had not yet been published. But it is entirely unpardonable when German archaeologists, in spite of all the information published on the subject, still write in such a strain, as, for instance: Fr. Maurer, who in a recent paper (*Ausland*, 1866, p. 154), accuses the Danish archaeologists of having kept secret these discoveries, and adds, "The

discoveries made were of that description that they effected an enormous breach in the system invented by the Danes establishing three sharply distinguished periods of civilisation—those of Stone, Bronze, and Iron, and these therefore desired to gain time in order to regulate the discoveries." It is evident that the latter, on the contrary, served eminently to strengthen and further illustrate that system, and this unworthy accusation is of course utterly unfounded; but it would be useless to attempt a scientific discussion with authors who are so blinded by national fanaticism that they do not hesitate to put forth such statements.

mental stones, entirely written in the earliest Runic alphabet, occur in the Scandinavian peninsula as far south as Bleking, and as far north as the Lake of Mælar and the interior of Norway. The deposits in the mosses of South Jutland exhibit, therefore, nothing peculiar to that province, or even to that kind of locality.

In the second place, I would observe that such a mixture of Roman and non-Roman antiquities is not confined to the north of Europe. The Iron age commenced in the western and middle parts of Europe several centuries before it begun in the Baltic and Scandinavian countries, and we have sufficient proof to show that even in such places—outside Italy and Greece—where Roman or Greek civilisation for a time entirely got the upper hand, a national or native industry was still preserved, of which numerous productions, as arms and ornaments, have come down to us, which most strikingly remind us of the objects found in the Danish mosses, but which, at the same time, in most cases are distinguished by some local or national peculiarities.⁷ I think we are justified in saying that the antiquities of this class discovered in Denmark to some extent do present such a peculiar character, and I believe that an examination of the illustrations of Danish antiquities of this period in Mr. Engelhardt's work and in my own work on Northern Antiquities, which is largely quoted by Mr. Engelhardt (pp. 8-22), will be found to confirm this view.

In the third place, I wish particularly to urge that neither the inscriptions in the most ancient Runes, nor the semi-Roman representations found on some of them, can, as some have thought, be fairly adduced in favour of a foreign origin. It is true that some very few inscriptions in similar

⁷ Compare Bruzelius's *Svenska Fornlemningar*, ii. 65-79; Troyon, *Habitations Lacustres*: Lausanne, 1860, pp. 179-212; Desor, *L'Âge du Fer dans les Constructions du Lac de Neufchâtel*; Musée Neufchâtelois, Sept., 1864; J. de Bonatetten, *Notice sur des Armes etc. découvertes à Tiefenau près de Berne en 1851*; Morlot, *Études Géologique-Archéologiques Lausanne*, 1860; Lindenschmidt, *Alterthümer unserer heidnischen Vorzeit*, i. tab. 1, ii. tab 5; C. Roach Smith, *Collectanea Antiqua*, iii. pp. 67-72, tab. xvi.; pp. 152-155, tab. xxxiii-iv.; iv. 28, tab. xii (from France); Lord Talbot de Malahide,

Antiquities found at Lagore, *Archæol. Journal* vi. 101-109; *Proceedings of the Arch. Inst. Meeting at York*: London, 1848; *Catalogue of Ant.* pp. 10, 11, illustrations, pp. 36, 39. Several similar finds are preserved in the British Museum; for instance, from Polden Hill, Somerset, and Stanwick, Yorkshire; the latter was discovered "deposited together in a pit" (perhaps not without analogy to our moss-deposits). A number of interesting objects are preserved in the Museum of the Royal Irish Academy at Dublin, particularly from a bog near Dunshaughlin.

characters have been found in Wallachia, in the Rhenish provinces, and in North Germany; but, as yet, the number of these instances is altogether insignificant in comparison with the number of those found in the Scandinavian countries, which, probably, even outnumber the English, or so-called Anglo-Saxon inscriptions of this kind. These latter seem, besides, to belong to a somewhat later period. The name of "Gothic" or "German Runes," which is sometimes applied to these Runes, is utterly arbitrary, and we are, as yet, completely in the dark as to their true home. But even if they have not been invented in the Scandinavian countries, so much is certain, as proved both by the most ancient Runestones in Norway and Sweden and by those from the transition period in Denmark, that these characters have been most extensively used all over the north of Europe, in the early Iron age and even after its conclusion, by the people who then inhabited those countries, and who may perhaps have invented them whilst living in other more southerly homes. A great step towards the solution of this question will have been gained when all the known inscriptions of this kind have been properly interpreted, which, as yet, is the case only with a very small number; for we shall then learn in what languages those found in different countries are written. But in this respect so much uncertainty still prevails, that not even the inscription on one of the large golden horns from Møgeltönder, which seems to be written in an ancient Gothic dialect, is interpreted by all in the same manner. The second point, whether the occurrence of ornamental semi-Roman representations can be said to prove a foreign origin of the objects on which we find them, has been recently mooted with particular regard to these very golden horns, a learned author having advanced the opinion that these horns must have been of foreign origin, not only because the inscription in his opinion is foreign, but also because there are representations of centaurs on them—a figure which he thinks could not be supposed to have been known in these northern countries at so early a time. It is, however, an established fact, that not only more southerly nations, neighbours of the classic nations, but also the inhabitants of ancient Denmark, received in those days, by trade and commerce, a very great quantity of Roman vases, vessels, ornaments, and other objects with classic ornaments;

and when we remember what great skill in metal work these northern people exhibited in their home manufacture, in which they were scarcely surpassed by those more southerly "barbarous" nations, there is no reason to doubt but that they have been both willing and able to imitate to a certain extent these objects of foreign manufacture and their ornaments. There is no reason why a native goldsmith might not have made these horns, and on them imitated figures of centaurs which he had seen on imported Roman objects, even if these particular imitations of centaurs should prove to be the only ones left from so old a time; and the same of course holds good with regard to other antiquities, with semi-Roman ornaments, both those from the mosses, in South Jutland and elsewhere, and those found in graves or loose in the earth. This argument is further strengthened by the circumstance that of the so-called gold bracteates,—which, though of a somewhat later date, are evidently of the same class as the relics just mentioned,—those found in the different parts of Scandinavia exhibit very appreciable peculiarities in each locality, which prove them to be of home manufacture.

If now we weigh these various facts and considerations, I think we must conclude that there is no reason why a great part, if not all, of the non-Roman objects from the early Iron age found in mosses, in graves, and loose in the earth, should not have been manufactured in Denmark in spite of their evident traces of a more southerly and higher civilisation. Nay, there is, on the contrary, every probability of their being of native make; and as no other country has as yet been pointed out, which could with any degree of certainty be assumed to be their original home, we are not even justified in ascribing to them a foreign origin. But whether a greater or a smaller proportion of the antiquities of the early Iron age in South Jutland ultimately will turn out foreign or native, so much is at any rate certain, that no general result can be gained in this respect concerning South Jutland, which does not apply with equal force to the whole Peninsula—nay, to all three Scandinavian kingdoms, with which South Jutland, in point of antiquities, has everything—including the Runic inscriptions—in common, in this period as well as in that preceding it. Although, therefore, these Runic inscriptions may prove what they very probably will

prove, that the Scandinavian countries already in the first centuries of our era were inhabited by a Gotho-Germanic race, including Danes, Swedes, Goths (in the most restricted sense of the word), and Norwegians, and related to the Germans in Germany, these inscriptions afford, nevertheless, no proof whatever of the existence at that time of a peculiarly "German" population in South Jutland. Not even of the Frisian settlements on the western coast of South Jutland do we find any characteristic vestiges in the early Iron period. Nor have we, as far as this period is concerned, anything besides the antiquities to guide us, for it is only from its conclusion, about the time of the downfall of the West Roman Empire in the fifth century, that we possess written information, which, though scanty, yet suffices in connection with the antiquities to throw a somewhat clearer light on the population of Northern Europe.

VI. THE LATE IRON PERIOD (from A.D. 450 to A.D. 1000).

DURING the remarkably splendid early Iron age, which in the western and north-western parts of Europe must have comprised about five centuries, but to which we are as yet unable to assign so long a duration in Denmark and the other Scandinavian countries, the influence of Roman civilisation was very strongly predominant. But in proportion as the Romans, the teachers of the "Barbarians," degenerated, the latter advanced in strength and civilisation. At the downfall of the Western Empire, barbarous—mostly Gotho-Germanic—nations assumed dominion over the remnants of the Romans and of the far more numerous older—mostly Celtic—Romanised populations; and on the victorious Barbarians devolved the task of founding and developing a new state of things on the ruins of the Roman Empire. As, however, they met with an almost completely Roman civilisation in those provinces of that Empire where they settled, they necessarily yielded to its influence in certain respects, and separated themselves from the kindred tribes which had remained in their old habitations, or at least not penetrated beyond the frontiers of the Empire. This was so much the more inevitable, as the foreign settlers in the Roman provinces within two centuries from their arrival all assumed the Christian faith, which only for a time was

checked in its progress by the destruction of the Roman Empire, whilst the ancient heathenism still survived for centuries in the more remote parts of Europe, as in Scandinavia and North Germany. From this again resulted an important difference in character between the early Iron age and the late Iron age, in so far that, whilst the former was characterised by a remarkable uniformity in the greater part of the middle, the west, and the north of Europe, the late Iron period, on the contrary (of which the conclusion is generally fixed at the time of the introduction of Christianity there), exhibits great differences in extent and character in different countries.

In Scandinavia, where Christianity did not gain the upper-hand till the eleventh century, and where the late Iron period therefore extended over nearly six centuries, we can distinguish at least two very marked subdivisions, of which *the earlier* is characterised by a remarkable and considerable Byzantine influence, which made itself felt at the side of the predominating semi-Roman or "new-European" current of civilisation; whilst, in *the later* of these periods, heathenism, supplanted by Christianity in the south and west, still retained its dominion in the north and north-east of Europe, particularly in the Scandinavian countries, whereby the old northern genius obtained a favourable opportunity of expressing itself in a peculiar taste in forms and ornaments, and even in a new Runic alphabet which is confined to the homes of the Scandinavian peoples and their colonies in other countries.

VIA. THE FIRST DIVISION OF THE LATE IRON AGE (from about A.D. 450 to A.D. 700).

It has until lately been universally believed, on the faith of certain written authorities, that the peninsula of Jutland, and particularly its southern division, played a great part in history about the time of the downfall of the Roman Empire, and the transition from the early to the late Iron age, inasmuch as it was supposed that Angles and Jutes in the middle of the fifth century emigrated from these parts in connection with their neighbours the Saxons, in order to found a new Anglo-Saxon Commonwealth in Britain, which now received the name of England from the Angles, whilst their

supposed original home, the district of Angel, in South Jutland, for a long time remained waste. Several, mostly Danish, authors have, moreover, supposed that not only the Jutes, but also the Angles, said to have emigrated from the ancient Danish Angel in South Jutland, must have been a Danish tribe, or at any rate a people forming a connecting link between Danes and Germans. Other historians, mostly Norwegian and German, have striven to prove that the Angles who settled in England, to judge from their language, local names, and other monuments, were a German, not a Scandinavian people; and, supposing that the Angles and Jutes came from the peninsula of Jutland, these authors have concluded that this peninsula must at that time have had a German population. Norwegian authors have finally added to this series of assumptions and conclusions a theory of their own, namely, that Jutland, which they suppose must have been to a great extent deprived of its inhabitants after the emigration to England, only after that event received its present Danish population through settlers from Norway; an hypothesis, which in all essential points has been indorsed by German writers, who have availed themselves of it as a welcome argument in support of their favourite theory, that the whole peninsula of Jutland, including Sleswick, originally belonged to the German nationality. In favour of this theory they appeal, besides, to the fact that the Danish dialect of the peasantry in some districts of Jutland differs from that of the neighbouring districts and the Danish provinces generally in placing the definite article before the noun, instead of affixing it to the end of the noun as is usually the case in Danish.

But all these theories of the emigration of Angles from South Jutland, and the supposed subsequent conquest of the peninsula of Jutland by the Danes, rest on a foundation which is not only unreliable, but entirely erroneous. It is in the first place extremely improbable that a district proportionally so small as the so-called Angel, between the Flensborgfjord and the Slie (about 300 square miles English), could have sent forth those numerous hosts of Angles who peopled such large tracts of the northern and eastern parts of England, and from whom even the whole country was named England (Anglia), rather than from the powerful Saxons, who occupied the south of the country. In the

second place, we are actually without any reliable and contemporary historical testimony to the effect, that the Angles who settled in England had come from Angel in South Jutland.

It was not till a couple of centuries after the Anglo-Saxon conquest of England, that Venerable Bede committed to writing loose traditions on the subject, stating no doubt that the Angles had come from Angel, "between the realms of the Jutes and the Saxons," but without any express indication of this Angel being situated in South Jutland. This may of course have been his meaning, but even in that case it does not follow that he or his informant were not misled by an accidental similarity of name, for the name "Angel," which originally meant a corner, was by no means uncommon. We know more especially that a people called Angles lived during the first centuries of the Christian era, and even at a later date, in certain districts bordering on the Elbe, near the home of the ancient Saxons in North Germany, a locality to which we may apply Bede's words "between the countries of the Jutes and the Saxons," with just as much probability as to Angel in South Jutland, particularly if we remember how very limited Bede's geographical knowledge probably was, and how unreliable his account of the Anglo-Saxon conquest is, in far more important points. For he describes it as a sudden event effected in a very short time, whereas in reality it had been prepared through centuries, by immigrations of Saxon tribes, and was accomplished only by degrees, a circumstance which altogether forbids us to attach any great weight to his statements on such minor subjects as the one we are now discussing. His allegation that, on account of the emigration to England, "Angel was said to be lying waste until this day," would, if true, at any rate be inapplicable to Angel in South Jutland, because it would imply that the Danes had not yet settled so far south as the Slie and the Danevirke at the time of Bede, that is, in the eighth century, an assumption which would be altogether incredible. I therefore think that those Angles who lived near the Elbe were far more probably the ancestors of the English Angles, than the "Angelboer" of South Jutland.

In the third place, we cannot doubt that the English Angles were really a German, not a Danish or Scandina-

vian tribe ; but in Angel in South Jutland we find not the slightest vestige of any German population in those remote times. With regard to the nationality of the English Angles, I might appeal to Bede's expressions to the effect that the Angles were one people with the Saxons (*Anglorum sive Saxonum gens*), and that Jutes, Angles, and Saxons were three of the most powerful nations of Germany, if I did not reject as untrustworthy both his account and those allusions in later written sources (the laws of Edward the Confessor and others), which have been appealed to in different ways by some authors, and which very probably may be founded on Bede's account. But I rely on the fact, that the Anglo-Saxon language, as indeed has been acknowledged long ago by Rask, is essentially a Low German language, with but very few unimportant Danish elements—a result which would be unaccountable if the Angles had been a Danish tribe ; and besides, that all the old Anglian names of persons and places, which are older than the ninth century, are in every respect like those occurring in the Saxon parts of England. It is true that Danish local names abound in the eastern and northern parts of England ; but they are, in my opinion, not so numerous there that they may not very well be ascribed to the settlements of Danish Vikings since the beginning of the ninth century ; and if the Angles, in whose land the Danes principally settled, had been Danes themselves, the difference in dialect, in the proportion of Danish and Saxon local names, &c., between the old Anglian and the Saxon counties, would, I think, have been very much greater than it actually is. Not even those Jutes, who are said to have accompanied the Angles and Saxons, were, in my opinion, Danes ; it is, at any rate, a fact, that in the districts where they are said to have settled—in Kent and the Isle of Wight—there are no certain Danish remains at all. If these so-called Jutes came from the peninsula of Jutland, I suppose them to have been emigrants from the Frisian districts on the west coast of the peninsula, who may have been misnamed Jutes. Some Frisians no doubt settled in England, but they were too few to leave any other traces behind them than a few local names. If then the English Angles were a German tribe, they cannot be supposed to have lived at any time in Angel in South Jutland ; for if so, they would assuredly have left some vestige behind.

But neither in Angel nor in South Jutland generally (excepting the ancient Frisian settlements on the west coast) do we find the slightest vestige of ancient Low German local names. All the local names in Angel have, on the contrary, as far as historic tradition reaches, always been, what they still are this day, as completely and originally Danish as those met with in any other part of Denmark—closely allied to the later Danish local names in the north and east of England, dating from the Viking period. As for the peculiarity of the dialect spoken in Angel and other parts of Jutland, viz., that the definite article is placed before the noun, of which the Germans have made so much ado, that the celebrated philologist, Jacob Grimm, on the strength of that, and of that alone, in the Frankfort Parliament in 1858, declared that Germany had a lawful claim to the possession of the whole of Jutland, this isolated peculiarity can neither be proved at any time to have prevailed in the whole of Jutland, nor has it indeed come into use till a comparatively modern period.

If, finally, we turn to the antiquities, and compare those of Angel in South Jutland with those of the ancient Anglian parts of England, we find that they are so far from confirming that the (Low German) Angles of England should have been of one race with the (ancient Danish) Angelboer of South Jutland, that, on the contrary, their testimony tends in the directly opposite direction. Numerous investigations in all parts of England have proved that the Anglo-Saxon tombs of the fifth, sixth, and seventh centuries, which generally form large cemeteries, mostly contain unburnt skeletons (in opposition to the Roman-British graves with burnt remains), buried in coffins rather deep in the ground, sometimes covered by small round tumuli, and that they present a marked uniformity all over the country, both in form and in contents, whether the districts in which they are situated were inhabited by Saxons or by Angles, or, as is supposed in some cases, by Jutes. English authors therefore frequently comprise them all under the common appellation of "Saxon graves." Some small variations with regard to the ornaments and other objects deposited in the graves have indeed been observed in different localities. Thus, for instance, the beautiful brooches with inlaid work, found in Kent, are peculiar to that county and denote at

any rate that there must have been greater wealth there than elsewhere. But these differences are too insignificant to be looked upon as indications of ancient differences of races, or indeed of anything more than local peculiarities of taste, caused perhaps in some cases by the different conditions of life of the population in different parts, nor do they render the uniformity prevailing in all essential points less striking. If now we compare these English tombs with those of the same period found in other countries, we find on the one hand that in France, in Switzerland, and in Germany (particularly in the Rhine countries and in South Germany), a great number of the tombs of the Franks, Burgundi, Alemanni, Saxons, and other German tribes allied to the Angles and Saxons have been discovered, which in all essential points connected with the form of the graves, the deposition of the corpses, the character of the accompanying arms, ornaments, and implements, present the most striking resemblance to the English tombs of the fifth, sixth, and seventh centuries.⁸ On the other hand, we find that these English graves differ most pointedly from the contemporaneous remains in the peninsula of Jutland, and in those parts of North Germany which were then inhabited by Vendic tribes. For, whilst cremation was so rare in the settlements of Angles and so-called Jutes in Kent, that Mr. Charles Roach Smith deduces the following result from the investigations of the Rev. Bryan Faussett, "that the Kentish cemeteries . . . do not present one single instance of an original deposit containing an urn with burnt bones in or about the graves," this custom was, on the contrary, all but universal both in the old Vendic parts of North Germany (including Holstein), and in the southern part of the peninsula of Jutland, at least that part which lies between the Eider and the town of Veile, comprising the supposed home of the Angles, and in which not one cemetery, nay, not one

⁸ Compare Th. Wright, *Antiquities of the Anglo-Saxon Cemeteries*, Liverpool, 1854; Ch. Roach Smith, *Collectanea Antiqua and Inventorium Sepulchrale*, Introduction; Baudot, *Mémoire sur les sépultures des barbares de l'époque Mérovingienne*, Dijon, 1860; Lindenschmidt, *Alterthümer, uns. heidnischen Vorzeit*, and particularly Count Wilhelm of Würtemberg's *Graphisch Archæologische Vergleichen III.*, which con-

tains a map showing the extent to which this class of tombs occur in Europe. Holland, the whole North, East, and great districts of the middle part of Germany, as well as the Scandinavian countries, are here left outside the boundary of these tombs, which towards the east is drawn from the river Ems to the sources of the Inn and the Isar, whilst towards the south it is formed by the Alps, and in France by the river Loire.

single grave like the Anglo-Saxon, Frankish, and other ancient German tombs of the fifth, sixth, and seventh centuries, has ever been discovered. It is true that single tombs and burial-places containing unburnt skeletons, bronze vessels, wooden buckets with metal mountings, glass cups, &c., and resembling so far the foreign graves just mentioned, are met with in some parts of Denmark, particularly in Sealand and in Fyen, rarely in North Jutland; but they belong to the preceding period, the early Iron Age, or at the utmost to the very beginning of the first division of the late Iron Age, and differ from those foreign graves by not forming such extensive cemeteries, and by an older or more Roman style of antiquities, as well as by a remarkable scarcity of iron weapons. But in Angel or in South Jutland generally, not a single instance of such a tomb has been met with,—a circumstance which in my opinion strongly militates against the theory of the English Angles ever having lived there.

Even apart from the mode of burial, a careful consideration of the antiquities, such as ornaments and implements, leads to the same result. The antiquities of South Jutland, as of the Scandinavian North in general, certainly exhibit a general resemblance in all essential points to those found in England, as well as in the countries then inhabited by Franks, Saxons, and other German tribes,—in fact, the greater part of Europe, north of the Alps,—and it is thereby evident that South Jutland and the other Scandinavian countries participated in the new semi-barbarous civilisation which developed itself on the ruins of Rome. But at the same time they present remarkable peculiarities. Of course, each of these many tribes imitated their Roman models in their own peculiar manner, and in this way the differences of race and country found an expression in their ornaments, arms, and implements. We may thus, for instance, observe that the ornaments with inlaid work which have been found in Frankish tombs certainly possess a striking resemblance to those from Kent; but they differ, at the same time, by their much less refined workmanship, proving that they have not proceeded from the same manufacture. The same also holds good with regard to the ornaments from South Germany, though these are perhaps still more like the English. Even within the limits of one

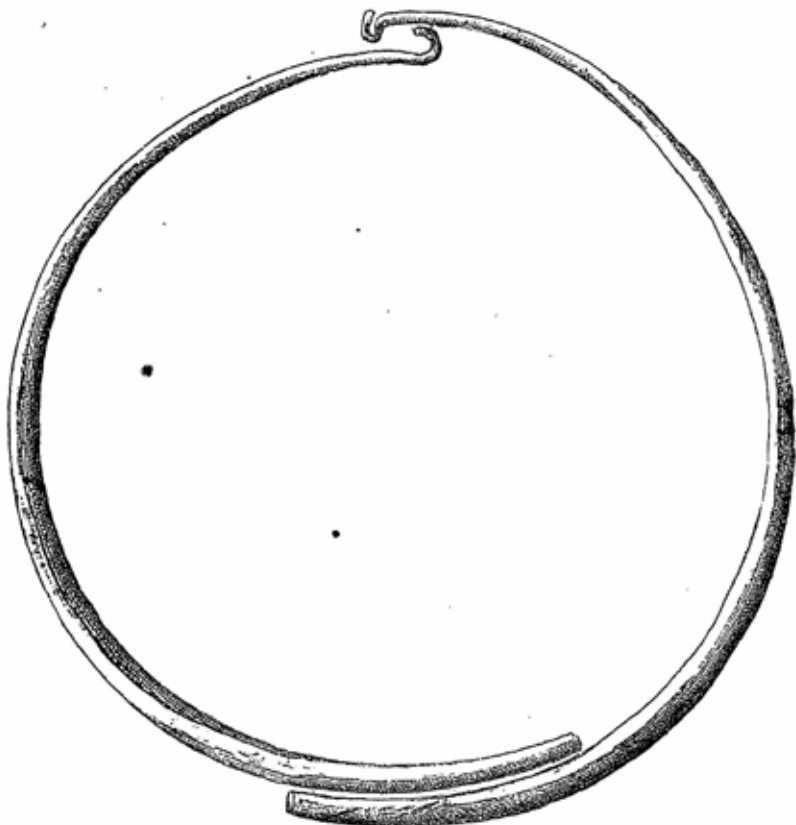
and the same country such differences occur, and we have mentioned an instance in speaking of the Kentish brooches of this period, which are so remarkably different from those found in other counties. Similar differences are observable in Denmark, with regard to this very class of ornaments, which in different parts exhibit local variations, proving that they are of home manufacture; and they have, besides, a peculiar interest to us, because they throw additional light on the question whether the English Angles came from Angel in South Jutland. The fact is, that, although these brooches are by no means unfrequent in other parts of ancient Denmark, only a very few have been met with in South Jutland,—partly of gold, ornamented with paste and filigree work, partly of silver, with ornaments of niello and fantastic representations of human and animal heads,—and even these few have mostly been found near the frontier of North Jutland, not one having as yet been discovered in Angel. Certain types of brooches, which are peculiar to the ancient Anglian districts, in the northern and middle part of England, are hitherto entirely unrepresented in the collections not only from Angel but from Denmark generally, whilst strange to say, they re-appear in the west and north of Norway, indicating that the intercourse between Norway and England in those days was more active than between Denmark and England. Nor is this the only fact which proves that during the first division of the later Iron age, as well as during the early Iron age, the intercourse of the ancient Danish provinces with Gaul, Germany, and Pannonia, was more active than with Britain, though this was so much nearer. It is a remarkable fact, that, whilst Roman coin of the two centuries of the Empire, as late as 230 A.D., is rather frequently met with in Denmark and the Baltic provinces, the finds of West-Roman coin of the two following centuries have been extremely few and far between. Now, it so happens, that, precisely about the year 230 the Romans began to withdraw from Germany and Pannonia, which countries therefore seem until then to have afforded the principal channel of communication between the Romans and the inhabitants of the North. And still more striking is the fact, that no Anglo-Saxon coins from the first three or four centuries of the Anglo-Saxon rule in England have been found in the North. Surely

V.—ANTIQUITIES OF SOUTH JUTLAND.

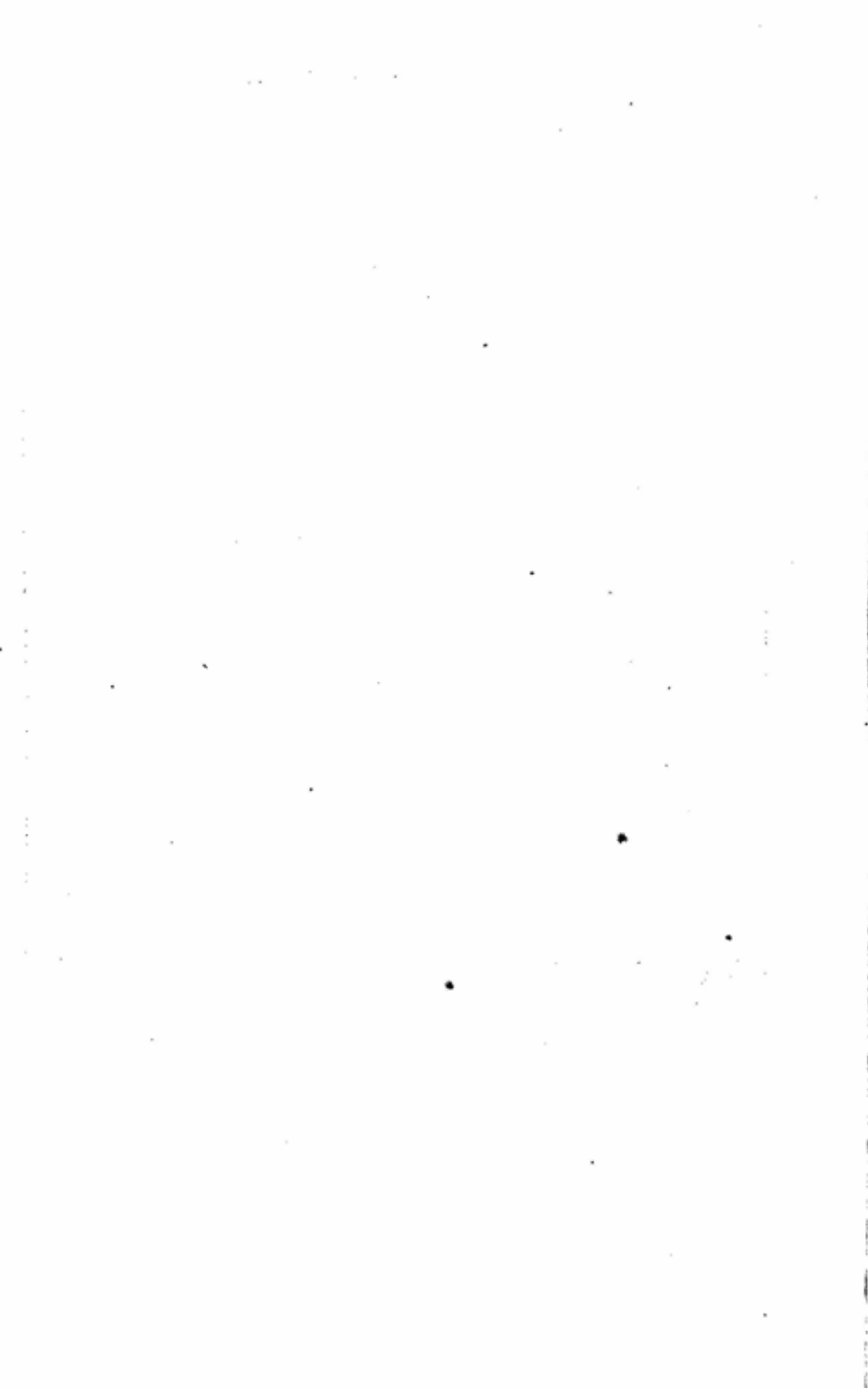
(Late Iron Age: First Division.)



Gold brooch (imperfect), set with colored glass and garnets, found at Skravo.
Original size.



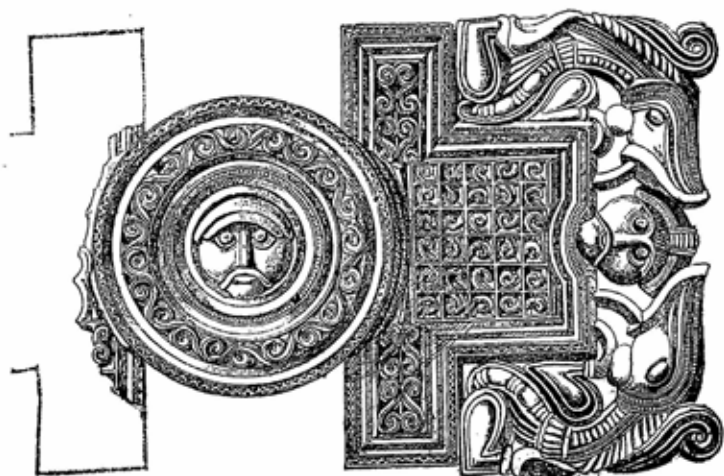
Fragments of rings of electrum, found at Ullerup and Fohl.
Scale, half original size.



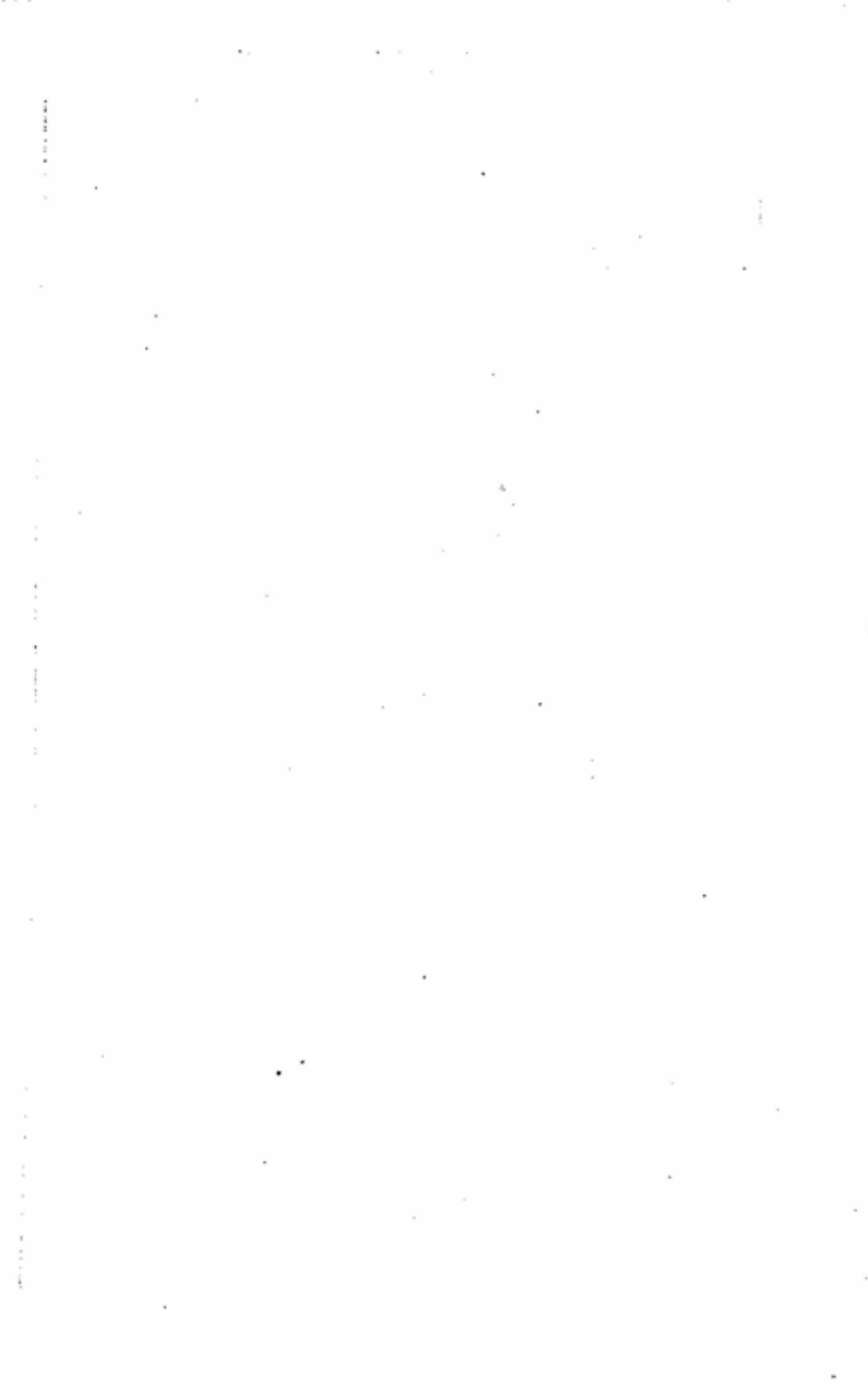
VI.—ANTIQUITIES OF SOUTH JUTLAND.
(Late Iron Age: First Division.)



Gold brooch, from Kolluna.
Original size.



Fragment of a gilt silver brooch, from Galsted.
Original size.



if the Angles had come to England from Angel in South Jutland, we must assume that there would have been an active intercourse between Denmark, or at least that province, and England, both before and after that great event, and we should certainly in that case expect to find both Roman coin brought from England, where the Romans ruled for two centuries after having withdrawn from their advanced posts in Germany; and also Anglo-Saxon coin from the earliest time of the newly founded commonwealth in England. The absence of such coin tells very heavily against the supposition that such intercourse existed. Arms of this period have hitherto only rarely been found in South Jutland, or elsewhere in Denmark; but what we possess points to the same conclusion as the coin. The hilts of the Danish swords of this period, for instance, resemble in shape to some extent those of the same age discovered in other parts of Europe, but we have, as yet, neither in South Jutland nor in other parts of Denmark, found a single spear-head of that peculiar kind of which the socket is not quite closed, and which is so well known from Anglo-Saxon, Frankish, and ancient German tombs.

Nevertheless, traces of foreign influence are by no means wanting, and many objects, such as glass cups, were no doubt imported from abroad. A peculiarity which must be explained in this way, is the occurrence of a curious kind of pottery in the extreme southern districts of South Jutland, between Angel and the Eider, particularly in tombs with burnt bones. These vessels have not as yet been found farther north, but are strikingly like those found in contemporaneous Vendic and Low German tombs. It is still uncertain whether this kind of pottery is originally Vendic, or originally Saxon, or rather an imitation of some perhaps Roman model, foreign to both these people. But, at any rate, its occurrence in South Jutland, near the southern frontier, is easily accounted for when we remember that the neighbouring Holstein was then inhabited both by Vendic and by Saxon tribes. Traces of a Vendic influence are even discernible on the south coasts of Laaland and Falster, in local names, although the Baltic intervenes between these islands and the ancient seats of the Vends in North Germany. The principal foreign influence at this time, however, was doubtless Byzantine. We trace this, not only in

the numerous Byzantine gold coins, mostly from the fifth and sixth centuries, found in the countries surrounding the Baltic, of which several being provided with eyes or loops have been used as ornaments. But it is also perceptible in the so-called bracteates of this period, which no doubt were



From Ullerup.

From Skodborg.

From Galsted.

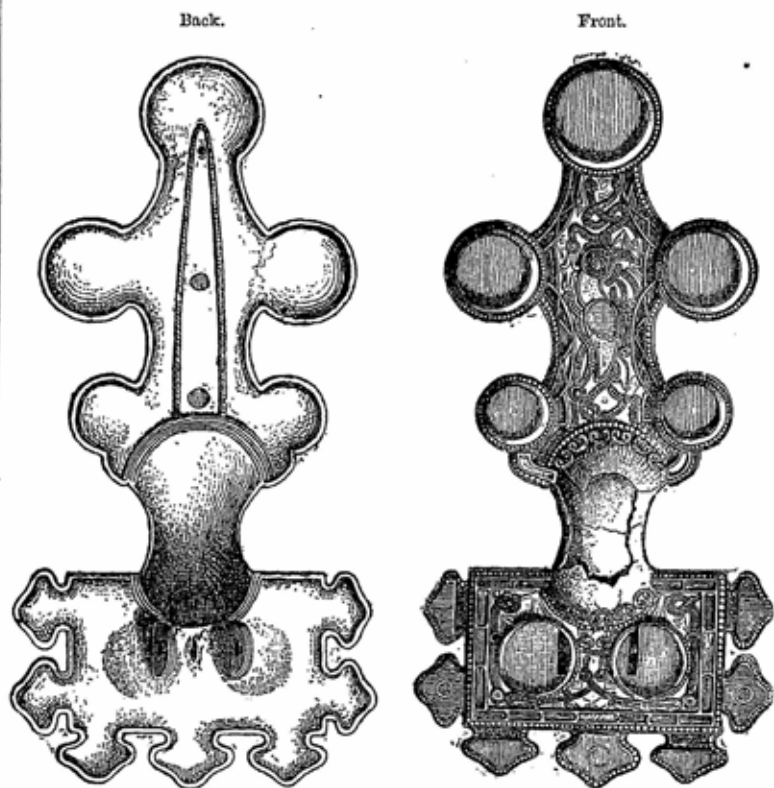
Gold Bracteates, orig. size.

manufactured in the northern countries themselves, in order to serve as ornaments, and which mostly are imitations, sometimes only on second or third hands, of Byzantine coins. Such bracteates, of which a great number have been found in Denmark—not a few in South Jutland—have certainly also been met with in Anglo-Saxon, Frankish, and ancient German tombs of this period; but those found in the north are mostly distinguished by their being imitations of Byzantine coin, and bearing inscriptions in the most ancient Runes, which is otherwise the case only with a few discovered in North Germany. These finds of bracteates, and particularly of Byzantine coin, often accompanied by splendid ornaments and rings of gold or electrum, are amongst the costliest that have occurred. They have been most frequent on the Danish islands, and been met with as far west as Hanover; but, although France and the British Islands have been influenced by Byzantine civilisation, it reached them through another route.

Of course, this Byzantine influence contributed to mark still more the distinction between the Scandinavian countries, including South Jutland, and the more westerly and southerly countries of Europe. And although that influence subsided, at least for a time, in the seventh and eighth centuries, this distinction did not on that account become obliterated. It

VII.—ANTIQUITIES OF SOUTH JUTLAND.

(Late Iron Age: First Division.)



Gold brooch, from Skodborg, inlaid with glass.

Original size.



became, on the contrary, stronger by degrees, as the west and middle of Europe was more Christianised, whilst heathenism still survived in the north, and from the beginning of the eighth century the Scandinavian countries, as far as the Eider, separate themselves with great distinction from the neighbouring Vedic, Low-Saxon, and Frisian countries, which, in the course of the following century were Christianised, whilst the north preserved its heathen faith for a couple of centuries more.

(To be continued.)

DORSETSHIRE NUMISMATICS; THE ANCIENT MINTS, WITH
NOTICES OF SOME MEDALS CONNECTED WITH THE COUNTY.

From Notes communicated by EDWARD HAWKINS, Esq., F.S.A.¹

It has been customary, on several previous occasions, to bring together such notices as may be available relating to the ancient mints that existed in localities successively visited by the Institute in their Annual Meetings, and to invite attention to any subject of numismatic interest, associated either with the county which has been the special field of exploration, or the worthies of bygone times whose memory is there held in honor. Although the numismatic information to be obtained regarding Dorsetshire is almost as scanty as that which we were enabled last year to glean, on occasion of the meeting in Warwickshire, it is obviously desirable that, amidst numerous subjects of archæological attraction presented in the ancient territory of the Durotriges, the scattered facts familiar doubtless to the adept in numismatic science, and that relate to the local coinage in ancient times, should not be overlooked. It is moreover scarcely necessary to point out that, in tracing the history of the royal mints in any particular district, we are necessarily led to certain conclusions, not without general interest to the topographer, as tending to throw light on the relative importance of ancient towns there situated, and on their probable conditions in early times in regard to commercial relations and local industry.

There were four places in Dorset where coins were minted in early times—namely, Dorchester, Bridport, Shaftesbury, and Wareham. By the Laws of Æthelstan, who succeeded Edward the Elder in 924, and who appears to have been the first of the Anglo-Saxon monarchs that enjoined regulations for the coinage, it was ordained at the Synod at Greatan-leage (probably Greatley, near Andover) that there should

¹ This memoir was read at the Annual Meeting of the Institute at Dorchester, July, 1865.

be one money over all the king's dominion, and that no man mint except within a town ("butan on porte"). A certain number of moneyers were assigned for each place:—for London, 8; at Winchester, 6; at Wareham, 2; at Shaftesbury, 2; else, at the other "burhs" only one.² Dorchester is not here specified; it may doubtless have been one of the towns ("burhs") at which a single moneyer was sanctioned. It must, however, be noticed that Leland, in an extract "Ex Decretis Æthelstani," apparently from an ancient copy of the Anglo-Saxon Laws, gives, after the two moneyers at Wareham, "In Dorcestra j."³ No coin of Æthelstan struck at Dorchester appears to be known. In the Domesday Survey two moneyers are mentioned as there established in the reign of the Confessor.⁴ "In Dore Cestre tempore Regis Edwardi erant clxxij. domus. . . . Ibi erant ij. Monetarii, quisque eorum redd' regi unam mark' argenti, et xx. solidos quando moneta vertebatur. Modo sunt ibi quater xx. et viij. domus, et c. penitus destructæ." No coins struck at Dorchester are known to collectors earlier than the time of Æthelred II., who succeeded on the murder of Edward the Martyr at Corfe, A.D. 979. He appears to have had a mint at Dorchester, designated on his coins by the legend *DOR*. It is remarkable that, notwithstanding the large contributions exacted by the Danes in his reign, amounting to no less a sum, according to Florence of Worcester, than 167,000*l.* in various invasions, the last payment, in the year 1014, amounting to 30,000*l.*, the monies of that reign, of common types, are by no means very rare: a fact to be attributed to the number of his mints far exceeding that of any preceding king. His moneyers were very numerous, and his laws, as Ruding points out, evince considerable attention to the preservation of the integrity of his money.⁵

The mints of King Cnut were likewise extremely numerous, and we find in his laws many ordinances relating to the coinage; the names of his moneyers are always placed upon his coins together with those of the mints. The coins struck at Dorchester are designated, as in the reign of

² Laws of Æthelstan, c. 14; Ancient Laws and Institutes of England, vol. i. pp. 207, 209; Wilkins, p. 59; Ruding, vol. i. p. 126.

³ Leland, Coll. vol. iii. p. 213.

⁴ Domesday Book, vol. i. f. 75 a.

⁵ Laws of Æthelred, Ancient Laws and Institutes, vol. i. pp. 302, 303; Ruding, vol. i. p. 133.

Ethelred, by the legend *DOR*. There are many coins of the Conqueror struck at Dorchester, marked *DORC—DORI—DOREC—DORECES—DORCEST—DORCETR—DORECEST—DORTCET*. The moneyers' names are Osbern, Wulfstan, Oter, Godwine, Lieric, and Lifric. A coin of that reign in the British Museum collection, and also in that in the Bodleian Library, inscribed *SWIRTINC ON DORTH*, may also be attributed to that place.⁶ In the large hoard of coins of the Conqueror found in 1833, at Beaworth, Hants, there were 25 of various types struck at Dorchester.⁷ There are likewise coins of William Rufus from the mint in that town.⁸

Bridport, as we learn from Domesday, had been a town of some importance before the Conquest: there was one moneyer there at that time. "In Brideport tempore Regis Edwardi erant *cxx. domus . . . Ibi erat unus monetarius reddens regi j. mark' argenti, et xx. sol. quando moneta vertebatur. Modo sunt ibi c. domus et xx. sunt ita destitutæ quod qui in eis manent geldam solvere non valent.*"⁹ In vain, however, had collectors searched for any example of money coined there until the discovery at Beaworth, Hants, before mentioned.¹ Amongst the number of coins of William I. and William II. there were found on that occasion twelve struck at Bridport.² The moneyers' names are *BRIHTPI* (Brihtwi ?) and *IELFRIC* or Ælfric; on Saxon money *IE* often occurs for *Æ*, the diverging lines being somewhat irregularly introduced, thus *II* may be read either as *A* or *V*. The name of the town on the coins assigned to the Bridport mint is written *BRD* and *BRIDI*.

Shaftesbury appears to have been a place of even greater importance. In the enumeration of places where, according to the Laws of King Æthelstan, moneyers were established, as before mentioned, two were ordained for Shaftesbury,³ and Edward the Confessor had three. The Domesday record is as follows:—"In Burgo Sceptesberie T. R. E. erant

⁶ *Ibid.*, vol. ii. p. 163.

⁷ See Mr. Hawkins' Memoir, *Archæologia*, vol. xxvi. p. 10; Ruding, vol. i. p. 155.

⁸ *Ibid.*, p. 162.

⁹ Vol. i. f. 75 a.

¹ A penny of Cnut is noticed by Ruding, vol. ii. p. 163, inscribed *BAR*, and which may, as he remarks, possibly have been struck at Bridport. It is, however, more probable that it was from the Bristol

mint. He adds that no coins have yet been discovered that can be appropriated to the Bridport mint with certainty.

² *Archæologia*, vol. xxvi. p. 8; Ruding, vol. i. p. 154. The place of mintage of two of the Beaworth coins, inscribed *IELFRIC—BRIPVT*, is considered as somewhat doubtful.

³ *Ancient Laws and Institutes*, vol. i. p. 209.

c. et iiij. domus in dominio regis . . . Ibi erant iij. monetarii, quisque reddebat j. mark' argenti, et xx. solid. quando moneta vertebatur. Modo sunt ibi lxx. domus et lxxiiij. sunt penitus destructe," &c.⁴ Ruding includes this town in his list of mints of which coins are extant assigned to the reign of Æthelstan; the name being indicated by the legend SCEFT.⁵ No example, however, is preserved in the British Museum, and the existence of any such coin has not, as we believe, been ascertained. In the Museum collection coins minted at Shaftesbury are to be seen of the following kings:—Æthelred II., Cnut, Edward the Confessor, Harold II., William I., and William II. The moneyers' names are Æthestan, Goda, Ælwig, Ælwne, Lufa, Loda (possibly for Goda), Wulfric, Godric, Aelnod, Ilnod, Godsbran, Godsbrand, Godesbrand, Cinihtwine or Cihtwine. The town is indicated as Ceftan, Scefte, Scea, Sefte, Sceftesb, Scieft, Sciefti, &c. Not less than 72 silver pennies of the reigns of William I. and William II. found in the great hoard at Beaworth have been ascribed to the mint of Shaftesbury.⁶

Ruding conjectured that Shaftesbury was indicated on coins of Henry III. by the legend SANTED—SEINTED or SENTED, as it was anciently called St. Edwardsbury,—Burgus Sancti Edwardi,—the coins minted at St. Edmundsbury being distinguished by the insertion of the letter M, thus SEDMVND, &c.⁷

Wareham, which had two *monetarii* in the reign of Æthelstan, was a town of considerable importance from an early period. In Domesday we find the following record:—"In Warham tempore Regis Edwardi erant cxliij. domus in dominio regis . . . Ibi erant ij. monetarii, quisque reddebat j. mark' argenti regi, et xx. solid. quando moneta vertebatur. Modo sunt ibi lxx. domus et lxxiiij. sunt penitus destructe," &c.⁸ The sparing use of letters in the legends of early coins, always in very contracted form, renders it exceedingly difficult to determine with any certainty the

⁴ Domesday, vol. i. f. 75 a.

⁵ Ruding, vol. i. p. 127.

⁶ *Archæologia*, vol. xxvi. p. 13; Ruding, vol. i. p. 156. The coins inscribed SCEFT, with the moneyer's name CINIHTWINE, have been assigned by Ruding to St. Edmundsbury, a place that had the privi-

lege of coining in the reign of the Conqueror. As no other pennies occur in the Beaworth list that can be given to that place, Ruding's supposition may be correct.

⁷ Ruding, vol. ii. p. 163.

⁸ Domesday, vol. i. f. 75 a.

places where they were minted. VERI occurring on a coin of Æthelstan has led collectors to assign it to Worcester,⁹ as well as to Wareham; WE also, which is found upon a penny of Edwig, has been assumed by various numismatists as indicating either Wareham, Worcester, or Wallingford. WERE on coins of Æthelred II. has likewise been regarded as indicating the Wareham mint. Amongst the pennies of William I. and William II. found at Beaworth, as before noticed, there were not less than forty-five that may with strong probability be ascribed to Wareham; these coins bear the legends IEGELRIC ON WER, WERE, or WRE; IEGLRIC ON WERE, WERHE, or WERHEI; GODWINE ON WERE, or WERI; SIDELOC ON WERE, or WERHE.¹ The insertion of H in some of these names seems to support the supposition that they designate Wareham; and, as the moneyer Iegelric uses indiscriminately Wer, Were, Werhe, and Wre, to express, as it is believed, the name Wareham, it is probable that the more contracted forms We² and Were, occurring on coins of other kings, may be taken as likewise denoting the mint of Wareham. Henry I. had a mint at that place, but Ruding was unable to trace it later than his reign.³

A remarkable medal commemorative of a Dorset Worthy claims notice on the present occasion, especially as associated with the name of our lamented friend the Earl of Ilchester, under whose auspices as President it had been our hope to have assembled in his county. This example of the artistic skill of the period, which it may be remembered was brought before the Institute by Lord Ilchester in 1856 and is noticed in this Journal,⁴ bears, on the obverse, the bust of Col. Strangways of Melbury, profile to the right, the hair long, the head uncovered, the neck bare; he is represented in armour, the lower part of the bust draped in a mantle. Legend, ÆGLIDIVS . STRANGWAYS . DE . MELBVRY IN COM. DORCESTR. ARM., and, under the shoulder of the bust, IAN. R. F. Reverse, the White Tower, or Cæsar's Tower, London; above is the sun breaking forth from a cloud, and shining on the Standard of England that floats from one of the corner turrets. Legend, DECVSQVE ADVERSA DEDERVNT. In

⁹ It has been thus given by Dr. Nash, the county historian, and by Mr. Green.

¹ *Archæologia*, vol. xxvi. p. 14; Ruding, vol. i. p. 157.

² A coin of Cnut is thus marked; Ruding, vol. i. p. 188.

³ *Ibid.*, vol. ii. p. 164.

⁴ *Arch. Journ.* vol. xiii. p. 182.

the exergue, INCARCERATVS SEPT. 1645. LIBERATVS APR. 1648. Diam. nearly 2 in.⁵ This fine medal is one of the works of John Rotier, whose signature JAN. R. appears on the obverse. The family came to England after the Restoration; the father had assisted Charles II. in exile, and in return the king promised, if he was restored, to employ his sons, who were gravers of seals and coins. Charles, on his return, dissatisfied with Simon, who had served Cromwell and the Commonwealth, sent for the brothers John and Joseph Rotier, and placed them at the Mint; the eldest, John, was in greatest repute.⁶ In Pepys' Memoirs a list of his principal productions may be found, with prices for which they were offered to him by Mr. Slingsby of the Mint, in 1687.⁷ In this enumeration the Strangways Medal is valued at 1*l.* 17*s.* It is not of great rarity, and has generally been sold when in good condition for 5*l.* or 6*l.*, though occasionally for a small price. It is to be seen in the British Museum collection, in the Hunter collection, and in several private cabinets.⁸ Two examples of gold are known.

This medal may probably be one of the supposed series struck in honor of those who suffered or distinguished themselves in the cause of Royalty. Giles Strangways was of one of the families of ancient note in Dorset; a pedigree may be seen in Hutchin's History of the County. He was born at the family seat, Melbury, in 1615. Early in the reign of Charles I. his father, Sir John Strangways, opposed the proceedings of the court, but, when he was convinced of the factious views of the party with which he had connected himself, and became dissatisfied with them for their violence against the Earl of Stafford, he attached himself to the royal party, and continued a faithful adherent to his king, for which he was honored by having his name inserted amongst those who were never to be pardoned. In the loyalty and consequent persecutions of his father, Giles Strangways

⁵ This medal has been figured by Evelyn; also in Pinkerton's Medallie History, pl. xviii. fig. 9, p. 54; and in Hutchins' History of Dorset.

⁶ Walpole's Anecdotes, Dallaway's edit., vol. iii. p. 187.

⁷ Pepys' Correspondence, App. to his Diary edited by Lord Braybrooke, vol. v.

⁸ This medal has been sold for the following prices:—In 1774, 6*l.* 6*s.* at Mr.

Selby's sale; 1775, at Mr. Owen's sale, 5*l.* 12*s.* 6*d.*; 1779, at Mr. Stacey's sale, 5*l.* 10*s.*; 1784, at Mr. Lindgreen's sale, 3*l.* 10*s.*; this last was sold again in 1790 for 1*l.* 7*s.*; in 1819 one sold for 5*l.* 7*s.* 6*d.* at Mr. Bindley's sale. All these were of silver. Mr. Browne of Shepton Mallet had one of gold; the late Mr. C. Wynne had also one of gold.

largely partook ; he commanded a regiment of horse in the West under Prince Maurice, and represented Bridport in Parliament, being disabled as member 22nd June, 1645. In August in that year he was fined 10,000*l.*, and shortly afterwards was, with his father, imprisoned in the Tower. Upon payment of the moiety the father was to obtain his release, but the son was to remain till the full amount was liquidated. So much had this loyal family suffered that they were unable to discharge the fine ; composition was refused, and both remained in prison till April, 1648, when upon acknowledging the fine they were liberated ; the son, however, was confined to a distance of twenty miles from London, till the last instalment was paid, the time for which was extended to October 14, 1649. Both father and son were members of the convention parliament in 1660. Notwithstanding the distress to which the family had been reduced, and the pressure upon his finances which rendered a thirty months' imprisonment necessary, Colonel Strangways contrived to collect 300 broad pieces, which he sent to Charles II. whilst a fugitive after the battle of Worcester. Lloyd tells us that their loyalty cost this family at least 30,000*l.* Bishop Parker, in his Commentaries, gives a high character of Colonel Strangways in language to which translation can do inadequate justice :—
"Strangways, a man of ancient and illustrious family, eminent for the greatest opulence and loyalty. Through the entire war under Charles I. he was renowned for the utmost fortitude. He did and suffered for the king every thing which a brave man could. Upon every occasion firm and steady in the strict line of duty, the intrepid and undaunted champion of the royal cause, even when it lay prostrate. Still was he extremely popular from the courteous affability of his manners towards every one, for which reason no one in his county was more valued, and by his influence the parliamentary elections were principally effected."

Of this loyal Dorsetshire gentleman there is a scarce portrait engraved by Loggan, to which are subjoined six lines, of which one, frequently quoted and frequently imitated, is as follows :—

"None, but himself, himself can parallel."

There is also a silver medal of the seventeenth century connected with Dorset, being in commemoration of the acquittal of the first Earl of Shaftesbury. He was born at Wimborne St. Giles, Dorset, July 22, 1621, and took an active part against Cromwell; after the Restoration he was advanced to many positions of note; and was one of the most active statesmen of his times, the unflinching supporter also of the Protestant interest in England. Obverse, the bust of the Earl to the right; the hair is long; legend, ANTONIO COMITI DE SHAFTESBVRY; under the shoulder is the signature G. B. F. (George Bower fecit). Reverse, a view of London, with London Bridge, the sun emerging from a cloud over the Tower. Legend, LETAMVR. In the exergue, 24 Nov. 1681. Diam. $1\frac{1}{8}$ in. The Earl, falsely accused by one Bryan Hans, who pretended to make important revelations concerning the Popish plot and the murder of Sir Edmund-bury Godfrey, was apprehended July 2, 1681; after being examined by the king in council, he was committed to the Tower; his papers were searched, and the draught found, as alleged, of an "association" to exclude the Duke of York from the succession, and for treasonable violence towards Charles II. No evidence, however, of the Earl's participation in any such conspiracy being adduced, the Grand Jury, on the day mentioned on the medal, ignored the bill. There were rejoicings amongst the citizens, bonfires in the streets, and the bells rung for joy.⁹

George Bower is noticed by Walpole as "probably a volunteer artist," whose works were not numerous; the best being the medal of the Earl of Shaftesbury.¹

In the possession of the Bingham family, whose ancient lineage is held in honored remembrance in the county, a silver medal of Queen Anne is preserved, which, although not struck specially in connection with the county, cannot be regarded as undeserving of mention in these notices. It was presented to Richard Bingham, Esq., great-great-grandfather of our friend the Rev. C. W. Bingham, to whose kindly assistance and influence in his county the Institute has often been under great obligations. The following record has been received with this medal, treasured as a family relic at Bingham's Melcombe:—

⁹ Burnet; Collins, by Sir E. Brydges, &c.

¹ Walpole's Anecdotes, ed. Dallaway, vol. iii. p. 193.

"This Medal was given to Richard Bingham, Esq., my ever honoured Father, at the time it was struck, he being then Knight of the Shire of the County of Dorset, by the order of the Queen whose image and superscription it bears, and I desire and will that it shall for ever hereafter be esteemed and taken as an Heirloom, and descend to the Heirs of the Family of the Bingham who shall be entitled to the Capital Mansion House, Manor and Farm of Melcombe Bingham.

(Signed) "R. Bingham, 7th Jan. 1743."

The medal in question is that known to collectors as struck on the signing of the Treaty of Utrecht, March 30, 1713, and presented by the Queen's orders to the members of both Houses of Parliament. A medal of larger size (diam. $2\frac{1}{4}$ in.) was struck for the Lords; a smaller one (diam. $1\frac{3}{8}$ in.) for the Commons. The two medals are precisely similar, except in size; they were struck in England. The larger medal bears the signature I. C. (John Crocker).² Obverse, bust of Queen Anne to the left, with her usual titles. Reverse, on the left ships sailing on a calm sea, on the right husbandmen ploughing and sowing; in front, Britannia standing (on the larger medal), represented on the smaller as seated; a spear in her left hand, an olive-branch in her right. The legend is from Horace, *Carm. lib. iv. Od. xiv. v. 52*,—*COMPOSITIS VENERANTVR ARMIS*. In the exergue is the date *MDCCLXIII*.³

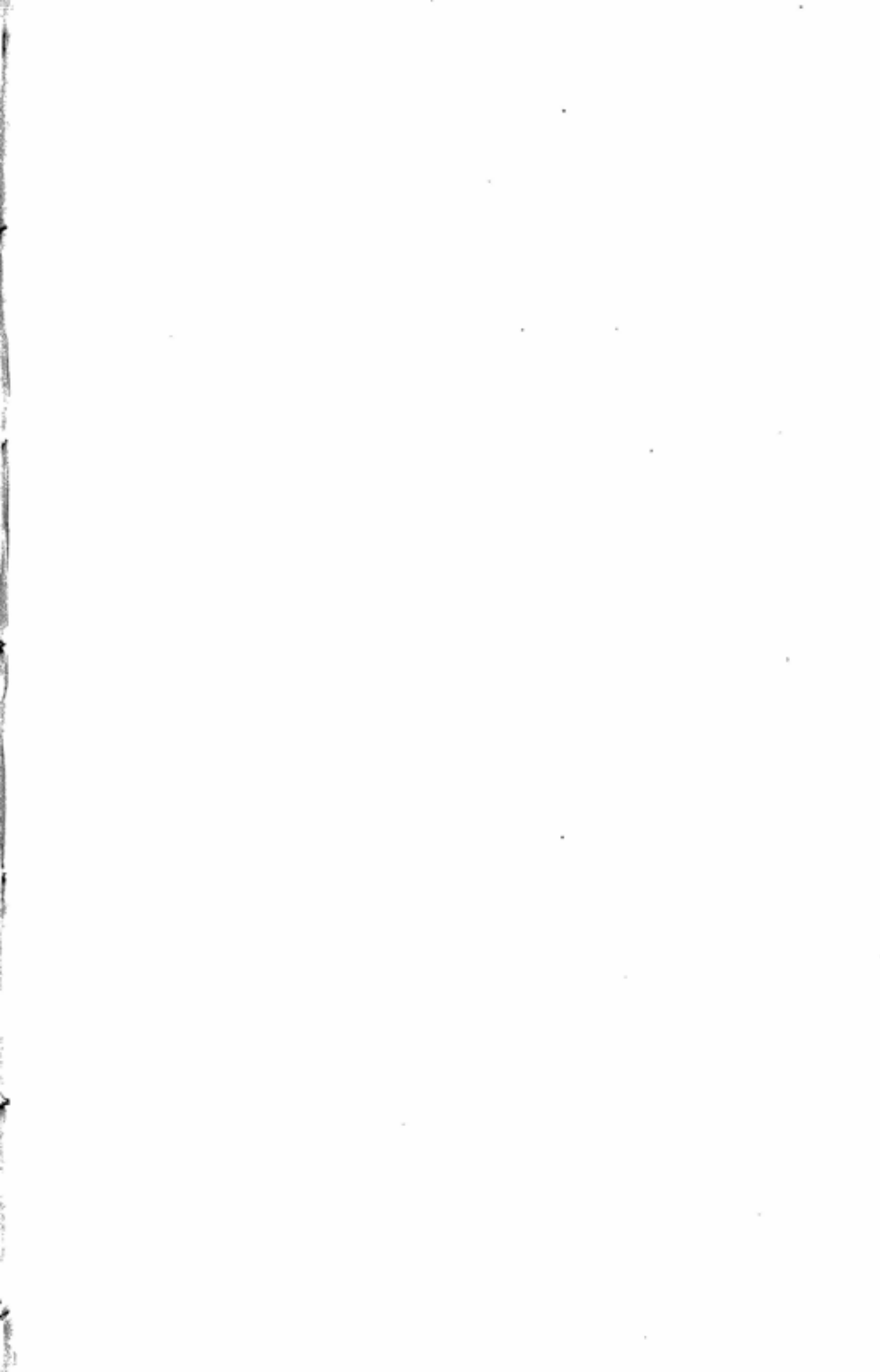
The Dorsetshire series of small Tokens struck without authority "for necessary change," after the death of Charles I., is considerable. Snelling and other writers have described many of these small monies; Hutchins has figured a large number in his *History of Dorset*; a more ample inventory has been given by Mr. W. Boyne, to which we may refer those who desire more precise information. The Dorset Tokens are chiefly farthings; the halfpennies are very few, and there are no pennies. Town-pieces were issued at Dorchester, Shaftesbury, and several other places enumerated by Mr. Boyne. Of these pieces several have been engraved for Hutchins' *History of Dorset*.

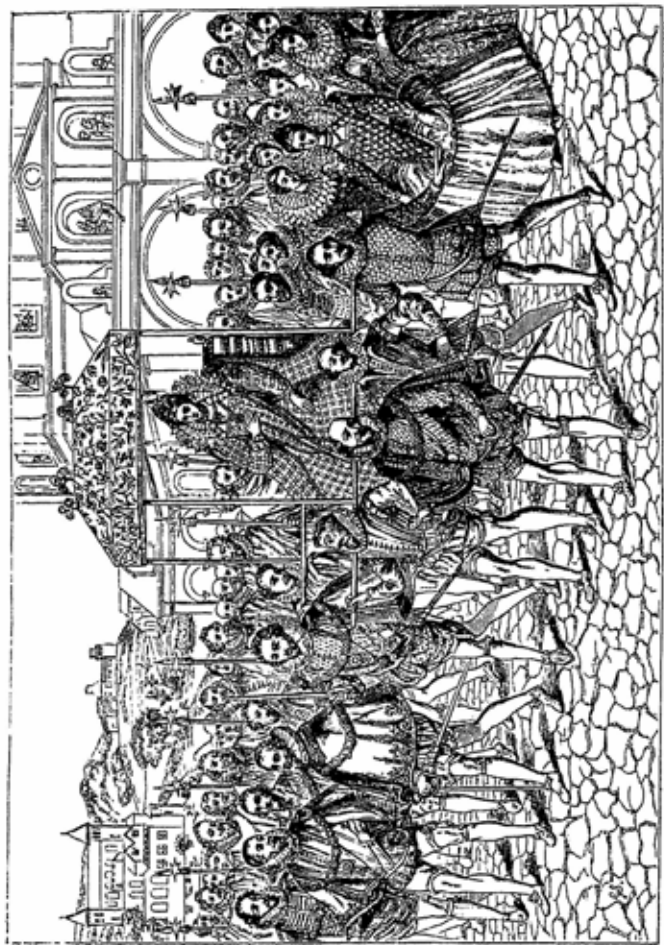
² Medallist temp. William III., Anne, and George II. Walpole's *Anecdotes*, edit. Dallaway, vol. iii. p. 304. See Mr. Pfister's account of Crocker, *Num. Chron.*, vol. xv. p. 67; 1852.

³ These two medals are engraved in

Tindal's *Contin. of Rapin's Hist.*, vol. v. pl. ix. p. 19.

⁴ Tokens issued in the seventeenth century, described by W. Boyne, *F.S.A.*, Lond. 1858, p. 61.





Procession of Queen Elizabeth to Blackfriars.

From the Painting at Sherborne, Dorset.

Contributed by JOHN MURRAY, Esq., from Markham's History of England.

QUEEN ELIZABETH'S PROCESSION IN A LITTER TO CELEBRATE
THE MARRIAGE OF ANNE RUSSELL AT BLACKFRIARS, JUNE
16, 1600.

By GEORGE SCHARF, F.S.A., Secretary to the National Portrait Gallery.

PERHAPS the most vivid and attractive of the many pictures that have come down to us from the time of Queen Elizabeth is one in which the Queen is represented seated in a kind of litter, carried on the shoulders of six noblemen, and followed by a large concourse of ladies and gentlemen belonging to her court.

This picture is No. 256 of the present (1866) Exhibition of National Portraits at South Kensington. The cheerfulness of the subject, gaiety of colours, and apparent truthfulness of the representation naturally lead to the desire of obtaining a somewhat more satisfactory explanation than either the official catalogue or any previously published descriptions have as yet afforded. To endeavour to supply some trustworthy information bearing on this subject is the object of my present paper. The earliest record we possess of the picture belongs to the year 1737, when Vertue saw it at Coleshill in Warwickshire, the seat of the Digby family. Vertue's engraving, executed soon after, and accompanied by a sheet of letter-press conveying a fanciful hypothesis of his own, was published in 1742. The picture was subsequently removed to London, and finally to Sherborne Castle in Dorsetshire, whence Lord Digby permitted it to be conveyed, for a few months, to Manchester in 1857, when it formed a principal feature in the Portrait Gallery, No. 64, of the Great Art Treasures Exhibition.

The Manchester Historical Portrait Gallery of 1857 was placed under the able management of Mr. Peter Cunningham, and he, in entering the picture in his catalogue, followed the title adopted by Vertue. The exact title on the engraving, as one of his "Historic Prints," runs as follows:—

"The Royal Procession of Queen Elizabeth to visit the

Right Honble. Henry Carey Lord Hunsdon, Governor of Berwick-upon-Tweed, Captain of the Band of Gentlemen Pensioners, Kt. of the most Noble Order of the Garter, Privy-Councillor and Cousin German to her Majesty by the Lady Mary, sister to Queen Anna Bolen. *The original of this picture was painted (in oyl) at the command of this noble Lord Hunsdon (cir. 1580), and is now in the possession of the Rt. Honble. the Lord Digby, who permitted a limning to be taken in water-colours for the Rt. Honble. Edward Earl of Oxford and Mortimer, and this plate to be engrav'd by their most humble and obedient servant, Geo. Vertue, 1742.*"

This inscription, taken altogether, has a gratuitously circumstantial character about it, and the statement here distinguished above by italics can hardly be reconciled with the following frank avowal of the absence of documentary evidence, afforded by Vertue himself, in the pages of letter-press already referred to.

"It is much to be admired that in this picture, so large and historical, there should be no date on it, nor arms, nor other insignia, unless the story was then so well known and remarkably public, that the nobleman who caused it to be done, and to whose honour this ceremonial was performed, might believe it would never be forgot in his family, or to posterity."¹

This at all events is a clear admission that the picture was wanting in date, pedigree, and history.

It had, notwithstanding, retained some glimmering of a tradition which, although wilfully rejected by Vertue, has by his means alone been handed down to us. In a subsequent passage of his Descriptive text, he proceeds: "I was assured, when I waited on² the Rt. Hon. the Earl of Oxford to see it at Coleshill in Warwickshire, October, 1737, that the noble peer, in whose family it has been at Coleshill for fifty or sixty years past, had no certain account handed to him of it, but only that it was painted in memory of Queen Elizabeth's doing honour to a young married couple—uncertain who, or when, or where."

¹ Quoted from Vertue in Nichols's Progresses, vol. i. date 1571, pages 2-8. This letter-press is signed G. V. and dated December 20, 1740.

² Meaning accompanied. Walpole says,

in his Life of Vertue, that, in 1737, Lord Oxford took him to Lord Digby's at Coleshill: page 994 of Walpole's Anecdotes, edited by Dallaway and Wornum.

The picture was brought to London in 1738.

Vertue then adds: "At length, by particular enquiry and study, I found out the site to be Hunsdon in Hertfordshire; thither, purposely, I went to see the place, which, upon the first sight, confirmed what I had read of such a visit mentioned in Strype's Annals, in the Queen's progress of the year and date first mentioned (1571)."³

Walpole, however, deliberately perverted these statements in the following passage from his *Life of Vertue*: "The next year (1738) he went into Hertfordshire to verify his ideas about Hunsdon, the subject as he thought of Queen Elizabeth's progress. The old Lord Digby, who, from tradition, believed it *the Queen's procession to St. Paul's after the destruction of the Armada*, was displeased with Vertue's new hypothesis."⁴ Walpole certainly seems to have misrepresented what Vertue had put upon record; and Granger, vol. i., page 219, unfortunately repeats the statement with implicit confidence. Vertue's supposed identification of the locality was a very imperfect one. He merely found a few slight accidental points of resemblance between the house in the picture and a *back-front* of Hunsdon House, represented by a modern engraving given in Nichols's "Progresses of Queen Elizabeth" (vol. i., p. 10, of 1788 edition); and even on comparing these points we find merely one trifling example of accordance—namely, that both have a plain circular window within an architectural pediment. The building in the painting is very simple, consisting mainly of badly proportioned Ionic pilasters, an arcade of round-headed arches, having broad entablatures, and a roofing of blue slate in the style of Italian renaissance then so generally prevalent.

The lithographic illustration of this picture, given in the second edition of Nichols's "Progresses," vol. i., p. 283, is worthless; but it is remarkable that in the small copper-plate, done with extreme care, for the first edition of the same work in 1788, the building has been considerably augmented. The picture, compared with the original, is nearly doubled in height. Lofty square walls, with windows, composed of two storeys, surmounted by a richly decorated roof, with fanciful dormer windows, and tall, smoking, Elizabethan chimneys, are added to the house. These are quite out of accordance

³ Nichols's *Progresses*, p. 4, note.

⁴ The Earl of Orford's *Works*, vol. iv. p. 125.

with the lower part, and seem to have been gratuitously added by the engraver!

If Hunsdon House really be the one so prominently introduced in the picture, it is somewhat strange that all the principal persons are either coming directly away from, or passing by, it. I never could feel satisfied with any of the arguments, if such they may be called, advanced by Vertue, or accept the conclusions which he arrived at. His arbitrary and positive manner of specifying Lord and Lady Hunsdon as the persons represented, and the evident discrepancy between his so-called figure of Dudley Earl of Leicester, and all the really trustworthy portraits of him, naturally led me to suspect that his theory was destitute of any solid foundation.

In the theory propounded by Walpole, of the Procession to St. Paul's after the Armada, I felt even less confidence, since we find it so many times related, that on Sunday November 24th, 1588, the Queen went in procession, accompanied by her nobles, the French ambassador, judges, heralds, and trumpeters, all *on horseback*, to St. Paul's. The Queen herself rode from Somerset House to the Cathedral in a *chariot throne*, under a canopy, drawn by two white horses. An engraving by Crispin de Passe, of Queen Elizabeth, taken from a picture by Isaac Oliver, is said to represent her in the dress in which she went to St. Paul's: but I am not aware that this statement is of any long standing or implicitly trustworthy. It is however so recorded on Woodburn's mezzotint copy engraved by the late Charles Turner. The costume of the engraving accords very generally with that of the Queen in Lord Digby's picture. In the latter she wears a lofty framework of jewels on her head instead of a crown; but the broad wire-stretched pieces of gauze, like butterflies' wings, spreading out on each side of her ruff, visible in the engraving, are omitted in the picture. The engraving exhibits the Queen carrying both globe and sceptre, neither of which appears in the Sherborne painting.

Having to some extent pointed out the hitherto received opinions as to the purport of the picture, and recorded my own hesitation in accepting them, I will endeavour to offer a few observations on what I venture to think may be accepted as a reliable interpretation of the scene.

I received the first clue of this from my friend Mr.

J. G. Nichols, F.S.A., during the course of some lectures which I recently delivered at the Royal Institution. Mr. Nichols then expressed to me his belief that the picture related to a visit paid by Queen Elizabeth to Blackfriars; on which occasion she was carried up a steep hill from the water-side, in a litter, on the shoulders of certain noblemen.

The topographical details I do not attempt to verify; but it is to be hoped that Mr. Nichols may be induced to pursue this branch of the subject, and to afford us the benefit of his minute research and extensive acquaintance with the historical remains of this locality.

The exact date, and more detailed circumstances, I unexpectedly met with a day or two after, in course of reading Miss Lucy Aikin's excellent, and too much neglected "Memoirs of the Court of Queen Elizabeth," in which work, at vol. ii., p. 456, occurs the following narrative:—

"Her Majesty repaired to Lady Russell's house in Blackfriars, to grace the nuptials of her daughter, a maid of honour, with Lord Herbert, son of the Earl of Worcester; on which occasion it may be mentioned, that she was conveyed from the water-side in a lectica, or half-litter, borne by six knights."

Here unquestionably we have the true subject of the picture. On referring to the second volume of Nichols's "Progresses of Queen Elizabeth" (first edition), under the date 1600, I found the following very curious details respecting the preparations for the event, the procession, and the masque performed afterwards.

Rowland Whyte, writing to Sir Robert Sidney, June 23rd, 1600, gives the following account of the festivities:—

"This day se'night her Majesty was at Blackfriars to grace the marriage of Lord Harbert and his wife. The bride met the Queen at the water-side, where my Lord Cobham had provided a lectica, made like a litter, whereon she was carried to my Lady Russell's by six knights. Her Majesty dined there, and at night went through Dr. Puddin's (Paddy's)⁵ house (who gave the Queen a fanne) to my Lord Cobham's, where she supped. After supper the masks came in, as I

⁵ Sir William Paddy. For this emendation I am again indebted to Mr. J. G. Nichols, F.S.A. There is a valuable whole-length portrait of this celebrated

physician belonging to the hall of St. John's College, Oxford. It is No. 234 of the Portrait Exhibition.

writ in my last ; and delicate it was to see eight ladies so prettily and richly attired. Mrs. Fetton leade ; and after they had donne all their own ceremonies, these eight ladys maskers chose eight ladies more to dawnce the measures. Mrs. Fetton went to the Queen, and woed her to dawnce. Her Majesty asked what she was ? ‘ *Affection,*’ she said. ‘ *Affection,*’ said the Queen, ‘ *is false.*’ Yet her Majestie rose and dawnced : soe did my Lady Marquis (of Winchester). The bride was lead to the church by the Lord Harbert of Cardiffe and my Lord Cobham ; and from the church by the Earles of Rutland and Cumberland. The gifts given that day were valewed at £1000 in plate and jewels at least. The entertainment was great and plentifull, and my Lady Russell much commended for it. Her Majesty upon Tuesday came backe again to the court : but the solemnities continued till Wednesday night, and now the Lord Harbert and his faire lady are in court.”⁶

The names of the eight lady-dancers were given by Whyte in a previous letter, dated June 14th, 1600. They occur in the following order :—

1. My Lady Doritye.
2. Mrs. Fetton.
3. Mrs. Carey.
4. Mrs. Onslow.
5. Mrs. Southwell.
6. Mrs. Bess Russell.
7. Mrs. Darcy.
8. My Lady Blanche Somerset.⁷

Mr. Nichols, in a note to the preface to his Progresses, p. xiii, says :—

“ They were married in a church ; and the queen passed through Dr. Puddin’s house. The fine conventual one of the Blackfriars was pulled down before, and with it the parochial one of St. Anne, but the latter rebuilt 1597 (Stow’s Survey, p. 375). With a view to illustrate this particular solemnity, the Rev. Mr. Romaine has obligingly searched the parochial registers of St. Andrew Wardrobe and St. Anne, Blackfriars, but finds there ‘ no notice of the marriage, or circumstance alluded to.’ The registers of most of the adjoining parishes were consumed in the Fire of London.”

⁶ Sidney Papers, vol. ii. p. 203.

⁷ *ibid.*, p. 201.

It should, perhaps, be borne in mind that both families were strict adherents to the ancient form of religion, and that several of the friends here present may also have been Roman Catholics.

This change of date, from 1571 to 1600, has the effect of removing from the scene six out of the seven noblemen specially named by Vertue. They all died before the opening of the seventeenth century.

It now remains for me to endeavour to identify the principal persons represented in the picture, taking as my guide the most authentic portraits of the period, following the names of persons known to have been present through means of the curious letters which have just been quoted, and bearing in mind the important instances of those entitled to wear the badge of the Garter, and the date when each individual had attained to that honour. Two figures alone retain the names which Vertue had assigned to them: these are the venerable Earl of Nottingham, to the left, and the Queen herself in the centre of the picture.

It may be observed with reference to the costume of the Queen, that the wide-spreading, radiating ruff, open in front so as to show the neck, appears to be a peculiarity of the Queen's latest years. The open neck was more particularly reserved for unmarried ladies. It does not appear either in pictures or on coins of this reign bearing dates earlier than 1601. Most of the portraits of the Queen, on the coinage especially, exhibit her wearing a small ruff, carried completely round and supported by a high stiff band or collar belonging to the dress, such as was worn during the reign of her predecessor. In this picture, however, a second inner ruff also appears, passing immediately under the chin, and corresponds exactly with a small frill in Lord Salisbury's curious portrait, exhibiting the robe embroidered with eyes and ears. No. 267 of the Kensington Portrait Exhibition.

The bald-headed nobleman standing in front below the Queen, and nearer to the spectator than any other figure in the picture, is clearly Edward, fourth Earl of Worcester, father of the bridegroom, holding a pair of gloves somewhat ostentatiously in his right hand. They were probably intended as a present for the bride, if not for the Queen herself. Scented gloves had already been presented to her majesty on the occasion of several royal visits ;

and it will be observed as somewhat singular that no other gloves are worn or to be seen in the picture.

This earl may be easily identified by a reference to the portrait, No. 380, in the present Kensington Exhibition. The portrait is engraved in Lodge.⁸ The bride, Mrs. Anne Russell (daughter of John Lord Russell, son of Francis, second Earl of Bedford, and of Lady Russell, daughter of Antony Cook, of Giddy Hall, Essex⁹), is the prominent figure in white immediately following the Queen. She wears a widespread ruff, open at the neck, which, as Hentzner¹ observes in his travels, was customary with all the English ladies till they marry. The bride is supported by two older married ladies, whose ruffs completely cover their necks. They are dressed in black and grey, with rich jewels. The lady between the bride and the Queen I take, from the resemblance to her portraits, to be Lucy Harrington, Countess of Bedford, whom I at first supposed to be the Lady Russell spoken of in the letter above quoted. Mr. Nichols, however, has pointed out to me in a recent communication, that Collins was under a false impression when he stated in his *Peerage*² that Lady Russell died so early as 1584. She was living at the time of her daughter's marriage in 1600. I must, therefore, waive my supposition that Lucy Harrington was the actual entertainer of the Queen, and limit her claim to the position she occupies as the then reigning Countess and head of the Russell family. The mother of the bride would naturally be her other supporter, and her figure is at the extreme right end of the picture. Other names of ladies who were present, and who afterwards assisted at the masque, we gather from Rowland Whyte's letter, dated June 14, 1600.³

At the beginning of this year, the Queen gave new year's gifts to most of these ladies, and their names occur in the official list, nearly in the exact order as given, thus :—

“ To Mistress Anne Russell, in guilte plate, K. 11 oz.

“ To the Lady Dorathy Hastings, in guilte plate, K. 10 oz. qr.

“ To Mrs. Marye Fytten, in guilte plate, K. 9 oz. 3 qr. di.

“ To Mrs. Anne Carey, in guylte plate, K. 10 oz. qr.

⁸ Lodge, vol. v. pl. 81.

⁹ Collins' *Peerage* (1779), vol. i. p. 252.

¹ Paul Hentzner's *Travels in England* (during the year 1598), 8vo. ed. London,

1797, p. 34.

² Collins, vol. i. p. 252.

³ Sidney Papers, vol. ii. p. 201.

" To Mrs. Cordall Anslowe, in guilte plate, M. 9 oz. di. di. qr.

" To Mrs. Elizabeth Russell, in guylte plate, K. 17 oz. 3 qrs. di."

The Countess of Bedford, "widowe," and the Countess of Bedford, "junior," both received gifts of plate, the one 51 oz., and the other 19 oz. The Countess of Worcester also received 19 oz. of plate.⁴

It is scarcely probable that the varied group of heads of ladies at this extremity of the picture can ever be individually distinguished by names. I recently visited Woburn Abbey for the express purpose of tracing any likenesses of this period that might still be preserved there. Lucy Harrington, in two distinct portraits, presents the peculiar features which I recognise in the figure already specified in the wedding picture.

I wish, however, in reviewing the remaining portraits, to dwell mainly on those in which I feel most confidence. The noblemen walk two and two, excepting the Earl of Worcester, who stands, as it were, apart. The six knights carrying the Queen wear no insignia of the Garter. The six noblemen preceding her Majesty are all distinguished by the collar of that order, and also by a medallion of the Queen hanging below it by a long ribbon.

In consideration, therefore, of the subject of the picture, we naturally enquire for the bridegroom. He, Lord Herbert, afterwards first Marquis of Worcester, may easily be recognised, with his peculiar face and upturned moustaches (through means of the portrait, also in the Portrait Exhibition, No. 640), carrying the right end of the pole of the Queen's litter, and with his left hand indicating his future wife, who stands immediately behind him. The dignified and aged nobleman, towards the extreme left, looking back, wearing a small black cap, is assuredly the Lord High Admiral, Charles, Earl of Nottingham, created K.G. in 1575. He married Catherine Carey; and next to him is his brother-in-law, George Carey, second Lord Hunsdon, bearing a white wand as Lord Chamberlain. He led the bride to church. He was created K.G. in 1597. Nottingham's son-in-law, Henry Brooke, sixth Lord Cobham, Warden of the Cinque Ports, and created K.G. 1599, walks immediately in front of

⁴ Nichols's Progresses (2nd ed.), vol. iii. p. 464.

the Queen, bearing the sword of state. As the sword, on state occasions, was carried by different persons of high rank and holding various offices, this portrait is ascertained and authenticated by a reference to Hogenberg's very rare contemporary print of him. George Clifford, Earl of Cumberland (who led the bride from the church), is easily identified as the head between Lord Hunsdon and Lord Cobham. He was elected K.G. in 1592. The Earl of Rutland, Roger Manners (Earl from 1588 to 1612), did not receive the honour of the Garter. He led the bride from church, and is probably the left-hand bearer of the pole, looking back, next to Lord Cobham. Another distinguished person, namely, Lord Herbert of Cardiffe, son of the Earl of Pembroke, and resident at Baynard's Castle in the near neighbourhood, would also be expected to be present at such a ceremony.⁵ He, together with Lord Cobham, led the bride to church, and I think his figure is to be recognised as the one bearing the pole between Lord Cobham and the Earl of Worcester. His face is seen directly in profile. He also was not distinguished by the order of the Garter.

The next that I shall touch upon is the gaily-dressed slim figure standing between the bridegroom and his father. The richness and peculiar ornamentation of the dress remind me of the well-known full-length portraits of Sir Walter Raleigh, bearing date 1602. Nor does it seem utterly improbable that this figure might have been intended for him. The prominent part taken by Lord Cobham in the ceremonial here represented, and the circumstance of Raleigh having been joined with him on a special mission to Flanders, from which both had only just returned (see Oldy's *Life of Raleigh*, p. 134), tend materially to strengthen the supposition. Again, the introduction of Raleigh in a position of such high favour with his sovereign would only serve to mark with still greater emphasis the fact that the Earl of Essex, the Queen's former favourite, was not only absent from the scene, but, at this very juncture, languishing in disgrace. It is somewhat remarkable that seven of the principal noblemen represented in this picture sat the following year as commissioners at the trial of Essex. Their names, according to Camden's *Annals*,⁶ are as follows:—1, Earl of

⁵ Collins (1779), vol. iii. p. 122; Lodge, vol. v., pl. 86.

⁶ P. 633, as printed in Kennett's *History of England*.

Nottingham ; 2, Earl of Worcester ; 3, Earl of Cumberland ; 4, Earl of Hertford ; 5, Lord Hunsdon ; 6, Lord Cobham ; 7, Lord Howard of Walden.

On the other hand, it must be admitted that the position of the figure now under consideration, by being brought so distinctly within a family group, and completely filling the only space between the Earl of Worcester and his bridegroomson, would most probably have been connected with them by near ties of relationship. In that case, the personage in question might possibly be taken for Thomas, the secondson of the Earl of Worcester, and brother to the bridegroom. He was sent by the Privy Council to Scotland, to notify the Queen's death in 1603. He was created K.B. the following year, and held the office of Master of the Horse to Queen Anne of Denmark. He was created Viscount Somerset of Cassell in 1626.⁷ There certainly is, as Mr. Nichols subsequently remarked to me, a tinge of family likeness about the countenance.

But, of all persons, the one most naturally to be found in this position would be Edward Russell, the third Earl of Bedford, and husband of Lucy Harrington, already mentioned. With the purpose principally of identifying this nobleman in the picture, I visited Woburn Abbey, and there met with two very characteristic portraits of him. Both were distinguished by a wart on the left cheek towards the mouth, a part of the face which in this picture unfortunately falls into shadow. I could not, however, recognise any decidedly satisfactory points of identity about the features ; nevertheless, allowance must be made for the difference of years, as one of the Woburn pictures bears date 1616, and the other appears to have been painted still later. This Earl seems always to have led a secluded life, and never distinguished himself by any public action. His decease took place in May, 1627. He did not receive the honour of the Garter ; and the absence of this badge, combined with the extreme elegance and richness of the figure in question, considerably increases the probability of the Earl having been the person really intended by the painter.

The last figure to which I shall invite attention is on the extreme left hand, in advance of the Earl of Nottingham, and appears to be Thomas, first Lord Howard of Walden,

⁷ Vide Collins's Peerage, 1812, vol. i. p. 229 ; and Edmondson's Tables, vol. i. p. 20.

afterwards Earl of Suffolk, Constable of the Tower. He was elected Knight of the Garter, 1597. His portrait is well known; there is a fine whole-length of him at Woburn Abbey, dated 1608, and another, taken in later years, at Castle Howard. It was this nobleman who observed the stores of gunpowder under the Parliament House, which led to the apprehension of Guy Fawkes. We must admit that the various faces introduced in the picture are not remarkable for boldness or decision of character. This is, perhaps, owing to a weakness on the part of the artist, whose work is neat and clean, and with a purity and delicacy of colour which are extremely agreeable. But the mild treatment of the features renders positive identification a matter of considerable difficulty. Flattery would scarcely be withheld from the countenance of the Queen, and, as in the already quoted representation of her Majesty, contributed by the Marquis of Salisbury to the present Exhibition, no absolute reliance can be placed upon it, in the light of strict portraiture. "Age" certainly was not allowed to "wither her." Some of the ornaments upon the Queen's hair, in No. 359, the Marquis of Exeter's, show a close resemblance to those in the Sherborne Castle picture. The badges worn on the ladies' left arms do not appear to have any special significance, nor do they exhibit any particular feature in common. Judging by the delicate and careful way in which the picture is painted, combined with a considerable amount of judicious management of light and shadow, blended with elaborate finish, I infer that it is the production of some skilful person not altogether in the habit of working in oil colours. The painting reminds me of the miniatures of Isaac Oliver,—or, more correctly, *Olivier*, since he invariably signs his works in this manner. Olivier, like his illustrious successor, Van Dyck, was a resident in Black Friars, and would only have been depicting a scene with which he was familiar. To him, therefore, rather than to Marc Gheeraedts, I would assign its execution. Isaac died at his house in the Black Friars in 1617, aged sixty-one or sixty-two. He was buried in St. Anne's Church in that parish.⁸ It is much to be regretted that no monogram, date, or indication of the painter's name has hitherto been detected. The picture is painted on fine canvas in opaque colours, and with much body of

⁸ Walpole's Anecdotes, edited by Dallaway and Wornum, p. 182.

paint. Vertue, in his engraving, has introduced feet to the figure of the bride, which do not appear in the original picture. The steep ascent of the ground, and roughness of the irregularly-shaped paving-stones, are carefully expressed in the painting. The shadows from the figures are more decidedly marked than in most pictures of this period. With regard to the distant landscape, no importance can be attached to the various features there represented. Numerous instances could be adduced of absurdly fanciful backgrounds being introduced behind well-known buildings, the latter being, in themselves, most accurately portrayed. Every Dignitary in the picture is bareheaded, with the exception of the Lord High Admiral, who wears a small close-fitting black skull-cap. No person carries a hat in his hand. Two or three females among the distant spectators wear high-pointed hats, but they are very remote. The dresses are minutely painted, and there is a total absence of gilding throughout the picture. None of the men wear earrings; all the noblemen's cloaks are black satin, and of the short Spanish cut. All legs are remarkably thin. The shoes are uniformly white, with ties of same colour on the instep. All the courtiers, with the exception of the Earl of Cumberland, wear full-spreading lace ruffs.

A repetition of this painting is said to be at Lord Ilchester's, and it would be interesting to ascertain whether the proportions of that picture remain the same, and whether the central house exhibits such additional upper stories, roofs, and chimneys, as to justify the features shown in the engraving in the first edition of Nichols's "Progresses," already referred to.

There appear to have been two great houses at Black Friars, immediately near the smaller one of Lady Russell's, as the following letter from Chamberlain to Carlton shows:— "June 13, 1600. We shall have the great marriage on Monday, at the Lady Russell's, where it is saide the Queene will vouchsafe her presence, and lie at the Lord Chamberlain's or the Lord Cobham's." Lord Cobham had married Frances Howard, daughter of the Earl of Nottingham, and widow of the Earl of Kildare, which readily accounts for the Lord High Admiral's prominent position. The Lady Cobham is probably among the crowd of attendants following the bride. It would also have been very satisfactory to

identify the Countess of Nottingham, that enemy of Essex, whom Queen Elizabeth handled so roughly three years later on her death-bed, but the materials are scarcely sufficient.

A limning, or drawing in water-colours, of Queen Elizabeth's procession, in her visit to Hunsdon, was sold among the Earl of Oxford's pictures, March 13, 1741-2. It is No. 46, the last entry but one, in the catalogue, and was purchased by Mr. Rudge for the sum of £51 9s. This limning was in all probability the one alluded to by Vertue, as having been taken for Lord Oxford, by special leave from the owner.

Original Documents.

INDULGENCE GRANTED IN 1491 TO JOHN DOD AND MATILDA HIS WIFE BY ROBERT BOLTON, "MINISTER" OF THE HOUSE OF TRINITARIAN FRIARS NEAR KNARESBOROUGH.

From the muniments of WHITEHALL DOD, Esq., at Llanerch Park, Flintshire.

To the courtesy of Mr. Whitehall Dod, through the obliging request of Dr. Kendrick of Warrington, we are indebted for permission to examine several documents preserved amongst the evidences of his family at Llanerch Park, near St. Asaph. With these documents, valuable as throwing light on the descent of property chiefly in Shropshire and Staffordshire, the subjoined Indulgence has been found.

On a former occasion some remarks were offered on documents of this description; an example was then given of an Indulgence issued in 1461 by the Pope's Commissaries-General *ad hæc*, and authorising the appointment, by the person for whose benefit it was intended, of a confessor, who might hear his confession and grant him absolution of all sins, &c., with certain exceptions specially mentioned.¹ Some notices were also given of certain Indulgences granted by Papal authority to members of certain confraternities, such, for example, as those connected with the Hospital of the Holy Trinity and St. Thomas the Martyr of Canterbury, in Rome. The following Indulgence, however, differs in some of its details from those to which attention has been already invited. Documents of this nature are, moreover, by no means of frequent occurrence, and they may serve incidentally to throw light on the history of conventual establishments in this country, and also on the privileges that they enjoyed. We gladly avail ourselves of the kind permission of Mr. Whitehall Dod that the subjoined Indulgence should be printed in this Journal, and hope that it may prove acceptable as supplementary to the notices that will be found in a previous volume.

The Friars of the Order of the Holy Trinity, called Trinitarians or Maturines, enjoyed probably a large measure of public sympathy, from the special purposes of benevolence to which they were devoted. The order was instituted in France about 1197, and confirmed by Pope Innocent III. (1198-1216), by whom their "Regula," which will be found in Dugdale's Monasticon, was approved.² The great excitement, it will be remembered, that so rapidly spread through Western Europe, had for a century been sustained with unabated ardour. The first crusade was published in 1094. How many must have been the wounded and captive victims of the Holy Voyage, that had worn out their misery in the dungeons of the infidel!

¹ Archæo. Journ., vol. xvii. p. 250.

² Dugdale's Mon. Ang., edit. Caley, vol. vi. p. 1558.

The deliverance of Christians incarcerated for the faith was an object which could not fail to win the sympathy of all classes. The Trinitarians appear to have been brought into England in 1224, their first house being founded in that year at Modenden, in Kent. Eleven houses are enumerated in the recent edition of the *Monasticon*. Amongst these is the house at Knaresborough, established in the reign of Henry III. by the king of the Romans. It seems to have occupied the site of an hermitage on the rocky banks of the Nid, where, according to Leland, Robert Flower, subsequently designated St. Robert of Knaresborough, had taken his dwelling-place in a cave, still an object of curious interest.³

The Friars of the Order of the Holy Trinity enjoyed numerous privileges, conceded doubtless in consideration of their benevolent purpose; these privileges were, moreover, extended to the *confratres* and *consores*, to each of whom a formal recognition in writing ("scriptum confraternitatis") was delivered, specifying the benefits to which they were entitled respectively, and the conditions on which they were granted. The privileges conceded to the House of the Order at Hounslow by Clement V., and to the brethren and sisters by Alexander IV. and other pontiffs, seem to have been even more ample, according to the statements of Thomas Becon, than those enumerated in the subjoined document.⁴

The Indulgence that has been so kindly entrusted to us by Mr. Whitehall Dod, was granted by Robert Bolton, designated "Minister" of the House of Knaresborough. It may deserve observation that the Masters of the houses of the Order of the Holy Trinity seem to have been thus styled. In the *Regula* before mentioned, approved by Innocent III., we find that the official sometimes called, in other orders, a *Procurator*, was in this order to be named *Minister*, to whom obedience was enjoined.⁵ There was, however, a *Minor* as well as a *Major Minister*; their duties are distinctly defined respectively. No list of the *Ministri* of Knaresborough has been published. We believe that collections for the history of this House have been made by an antiquary well versed in the monastic history and archæology of Yorkshire, and to whose obliging communications we have formerly been indebted. We hope that the author of the *Memorials of Fountains Abbey*, which may be mentioned as one of the most valuable works that have appeared under the auspices of the Surtees Society, may at some future time undertake the history of the Priory of Knaresborough, and its origin in the ancient hermitage on the banks of the Nid.

Mr. Burt has called our attention to an imperfect impression of the seal of the Minister of the House of St. Robert, near Knaresborough, in 1465. It is appended to a document amongst the muniments of the Dean and Chapter of Westminster: we have obtained a fac-simile from Mr. Ready. The device of the seal, which is of pointed-oval form, represents a seated figure of a saint, probably intended for St. Robert, seen in profile towards the right. The head, which is surrounded by a nimbus, is inclined slightly downwards towards an open book that the holy person here portrayed

³ See the Legend of St. Robert, given by Mr. Walbran, in the *Memorials of Fountains Abbey*, edited for the Surtees Society. This curious legend is extracted from a MS. in possession of the Duke of Newcastle; it had been imperfectly given in Diak's *Eboracum*, f. 359,

371. See also Hargrove's *Knaresborough, &c. Leland's Itin.*, vol. i. p. 98.

⁴ *The Reliques of Rome*, Lond. 1563, fo. 190.

⁵ See the *Regula*, Dugd. *Mon. Ang.*, vol. vi. p. 1549, Caley's edition.

holds upon his knees. Before him is a stem of a tree with leafy boughs, probably typifying the sylvan seclusion in which he dwelled. A portion of the legend, in bold capitals, remains on the right side of the seal,INISTRI DOMVS... and at the end may be deciphered one or two damaged letters, possibly the termination of the word Knaresborough. In its perfect state the seal may have measured about an inch and a half in height. The date of the matrix of which this is an impression may be assigned to the thirteenth century: the seal may have been coeval with the foundation of the House.

A. W.

Universis Christi fidelibus presentes literas inspecturis Nos, Frater Robertus Boltone Minister domus Sancti Roberti juxta Knaresbrough Eboracensis Diocesis ac ordinis sancte Trinitatis et redemptionis captivorum qui sunt incarcerati pro fide Jhesu Christi a paganis, salutem in eo per quem omnium peccatorum plena sit remissio. Notum facimus quod cum plurimi Romani pontifices omnes et singulos Confratres et Consorores multis privilegiis dotaverunt, presertim in eo quod nostri Confratres et Consorores possint sibi annuatim eligere ydoneum presbiterum secularium vel cujusvis ordinis, eciam mendicantium religiosum, in suum possunt eligere Confessorem qui eos absolvant ab omnibus casibus Sedi Apostolice non reservatis, et semel in vita ab omnibus peccatis eciam a casibus Sedi Apostolice quomodolibet reservatis. Que quidem privilegia ipsa sanctissimus in Christo pater et dominus noster dominus Innocentius Papa octavus modernus confirmavit et approbavit, et in articulo mortis plenariam omnium peccatorum suorum Indulgentiam et remissionem eis impertiri valeat, et quilibet Confrater habeat scriptum dicte confraternitatis, et eiidem sepultura ecclesiastica non negetur quacumque morte moriatur, nisi nominatim fuerit excommunicatus, Presbiteris et Clericis et aliis Sacerdotibus secularibus ac viris religiosis tam mulieribus cujuscumque religionis et habitus quam Monialibus, si dicto ordini de bonis suis transmiserint, quideumque per impotentiam, neceligenciam, oblivionem aut corporis debilitatem, vel per defectum librorum in divinis officiis aut horis Canonicis obmiserint, penitus est eis remissum. Cum igitur devoti nobis in Christo Johannem Dod⁶ et Matildam uxorem ejus fraternitatem suam modo confraternitatis confratrie sue promisit, de bonis que suis contribuerit, tenorem literarum Apostolicarum adimplendam, ideo ipsos associamus in vita pariter et in morte una cum omnibus amicis vivis ac defunctis in omnibus suffragiis nostre predicto religionis. Datum sub sigillo nostre Confraternitatis, Anno domini Millesimo cccc. nonagesimo primo.

The three following formulæ are endorsed on the Indulgence :—

Forma absolucionis annualis.—Dominus noster Jhesus Christus per suam plissimam misericordiam absolvat te. Et ego, Auctoritate Apostolica

⁶ A large blank seems to have been left for the name; "Johannem Dod" seems to be written in the same pale ink as the form of confraternity, and possibly by the same hand; the word "Matildam" is in different ink, and unaskilfully written quite out of the straight line. There appears to be a double error in this part of the Indulgence. The form was pre-

pared for one person, and not only are two names inserted, but they are in the accusative case instead of the nominative. It is probable that the sentence should have run thus:—"devoti nobis in Christo Johannes Dod et Matilda uxor ejus . . . promiserint, de bonisque suis contribuerint," &c.]

michi in hac parte commissa et tibi concessa, absolvo te ab omnibus peccatis tuis contritis confessis et oblitis Sedi Apostolice non reservatis. In nomine patris, etc.

Forma absolucionis semel in vita.—Dominus noster Jhesus Christus per suam piissimam misericordiam absolvat te. Et ego, Auctoritate Apostolica michi in hac parte commissa et tibi concessa, absolvo te ab omnibus peccatis tuis contritis confessis et oblitis, eciam a casibus Sedi Apostolice quomodolibet reservatis. In nomine patris, etc.

Forma absolucionis et remissionis plenarie in articulo mortis.—Dominus noster Jhesus Christus per suam piissimam misericordiam absolvat te. Et ego, Auctoritate Apostolica michi in hac parte commissa et tibi concessa, absolvo te ab omnibus peccatis tuis contritis confessis et oblitis. Et do tibi eciam plenariam omnium peccatorum tuorum remissionem et Indulgenciam, remittendo tibi penas purgatorii quas pro peccatis et offensis tuis pati meruisti, in quantum claves sancte matris ecclesie se extendunt in hac parte. In nomine patris, etc.

Proceedings at Meetings of the Archaeological Institute.

April 9, 1866.

The Marquess CAMDEN, K.G., President, in the Chair.

A SHORT memoir, by the Rev. GREVILLE J. CHESTER, was read, describing a collection of ancient remains found on the site of Carthage, and preserved in the garden-house of the Khaznadar, or First Lord of the Treasury at Tunis. The account of these interesting relics, including a singular leaden font, of Christian times, bearing an inscription in Greek characters, will be given hereafter.

Col. AUGUSTUS LANE-FOX read an account of the remarkable antiquities that he had explored during the previous year in Ireland. His attention had been directed to an ancient stronghold in the parish of Aghlish, co. Cork, known as Roovesmore Fort, on the Western side of which he found an entrance to a small subterraneous passage, covered over by slabs of sandstone inscribed with Oghams. Col. Fox had successfully met the prejudices of the neighbouring inhabitants, and he gained permission to remove the inscribed slabs. He has presented these remarkable monuments of palæography at an early period to the British Museum, where they will form a fresh feature of evidence, worthy of being placed with the "Fardell Stone" that was added to the National Collection through the efforts of Mr. Smirke, and has been figured in this Journal, vol. xviii. p. 175.

A memoir by Professor JAMES BUCKMAN, F.G.S., was read, describing vestiges of British and Roman occupation found in the Isle of Portland, and accompanied by numerous drawings of ancient relics of bronze and stone, pottery, &c., disinterred during the recent construction of the Vera Fort. These notices will be given hereafter, with engravings of some of the most interesting of the objects that have been brought to light in Portland.

Mr. HEWITT offered some observations on a collar of mail, of the early part of the fifteenth century; it is preserved in the Museum of Artillery at Woolwich, and was brought for exhibition by permission of Brig.-General Lefroy. Mr. Hewitt pointed out the sepulchral brass of Sir William de Tendring, in the Church of Stoke-by-Nayland, Suffolk (date 1408), as an exemplification of the fashion of wearing such a gorget or "standard of mail," which differs materially from the ordinary camail, and seems to have been a defence supplementary to the gorget of plate. The remarkable brass at Stoke is figured in Mr. Hewitt's *Armour and Arms in Europe*, vol. iii. pl. 56, p. 369; *Cotman's Suffolk Brasses*, pl. viii. Mr. Hewitt

also exhibited photographs of highly-decorated shields of the sixteenth century in the Armouries at Windsor Castle and at Paris.

Mr. Burt then read some observations by Mr. E. W. GODWIN on the various phases of modern "Vandalism," and especially in the injuries to which ancient structures are so frequently subject through "restorations." Occasionally, as he remarked, there seems to be some excuse for the destruction of late work in order to uncover that which is of an older period; it is, however, impossible to do this without sacrificing the historical significance of portions of the fabric thus removed, and which constitute essential evidence of its architectural history. Mr. Godwin wished specially to invite the notice of the Institute, and of archæologists generally, to the building in Small Street, Bristol, known as "Colston's House." A site for Assize Courts having become necessary, that interesting structure seemed to be doomed: remonstrances were, however, urged by several Societies, and in Architectural and Archæological publications, the result being that, at a meeting of the Town Council of Bristol, it seemed to be admitted that if the old work could be saved, with due regard to the accommodation required, the Council had no objection to its preservation. Shortly after, an advertisement for designs appeared, and three were prepared by Mr. Godwin, with the object of showing how the site might be treated,—first, by the restoration of the first house, or Norman Hall, which was immured in the later work;—by preserving all the mediæval buildings that the new line of street spared;—and, lastly, pointing out the most that could be done by clearing the site and preserving nothing. These designs were received with unexpected approval; Mr. Godwin expressed the hope that the first might be adopted, in which he had provided for the preservation of the Norman Hall as a vestibule to the Nisi Prius Court. He apprehended, however, that this course might be subject to serious objections, since the street, which happens to be particularly narrow, must be widened, so that the traffic may be carried on with ordinary despatch and convenience; indeed a new line of street had been laid down which cuts off a considerable portion of Colston's House, destroying the gabled façade added when he took the property. This being destroyed, there remain, besides walls of Norman rubble masonry, two great features—one of them being the nave of a Norman Hall running N. and S., with its Eastern arcade of three arches buried in masonry of the later part of the fifteenth or beginning of the sixteenth century; the other, a two-storied structure of the same period, being an extension of the Eastern Norman aisle. The architecture of this last, although at first sight very rich, is not rare; in the West of England there are examples, and the building in question is only a repetition of six panels one over the other. On the other hand, the Norman, or rather semi-Norman, work is the only example, in Bristol or the neighbourhood, of a Domestic Hall of that interesting period when the round arch began to give place to the pointed. The shafts are light and clustered; the end arches rest on bold corbels. With the exception of one corbel, these early remains were invisible until lately; but, under direction of the Conservation Committee of the Bristol Architectural Society, the features of early masonry so long immured in Colston's House have been rendered so far visible that the archæologist may feel assured that the greater part of a twelfth century Hall still remains. In conclusion, Mr. Godwin strongly urged the importance of more vigilant conservatism on the part of Archæological

Societies, and of all who appreciate the value of ancient monuments, in order to ensure their preservation not less from reckless advocates of local convenience, than from the ill-advised promoters of "restoration."

By the kindness of Mr. Godwin a plan of Colston's House was submitted to the meeting. We are not aware that any accurate Survey of that interesting structure has been published. A view of the House will be found in Mr. Parker's *Domestic Architecture*, Part I. p. 35.

Mr. F. M. METCALFE called attention to the proposed destruction of a portion of the chancel screen of the church of Emneth, Cambridgeshire, which has recently undergone "restoration." The screen, a work of Perpendicular character, had paneled and carved gates of coeval date, forming an integral portion of the work. Mr. Metcalfe had tendered a contribution towards the repair of the screen, an object which he regarded with interest; having, however, ascertained that the Vicar had ordered the gates to be removed, Mr. Metcalfe remonstrated against the destruction of an original portion of the screen spared in days of reckless demolition in the sixteenth and seventeenth centuries. This appeal proving unsuccessful, Mr. Metcalfe sought to interest his archaeological friends in the preservation of the screen-work at Emneth.

The question, and also that set forth by Mr. Godwin, was referred to the Central Committee. A courteous remonstrance, subsequently addressed to the Vicar of Emneth, expressing regret that vestiges of olden times should be destroyed, however well-intentioned may be the so-called "restorations" of our venerable parish churches, produced only an intimation of the displeasure of the Incumbent, who, in a letter addressed to the lamented President of the Institute, the Marquess Camden, strongly deprecated any interference of the Institute with the affairs of his Parish.

Antiquities and Works of Art Exhibited.

By Mr. F. POTTS.—A cameo, and an ornament formed of agate, that had originally enriched an antique vase of the Roman period.

By the Rev. H. ASTON WALKER.—A folding devotional tablet of ivory, a work of thirteenth century art.

By Capt. E. HOARE.—Cameo on onyx, set as a ring; the subject, in very high relief, is the head of Hannibal, with the Phrygian helmet; the work is of fine character. There is a cameo of similar design, but of larger size, in the Marlborough collection. The cameo exhibited had been, as Capt. Hoare states, in possession of his mother's family (Barry of Dublin and co. Cork), and of her mother's family (Lyons of the King's County), for nearly three centuries.

MEDIAEVAL SEALS.—By Mr. W. P. ELSTED.—Impression from a silver *secretum* or counterseal lately found on the beach at Dover, and now in the possession of Capt. Williams of that place. The antique intaglio, on sard, which forms the setting, is much injured, the gem being shattered probably by the shingle in which the seal had lain; the subject, however, may be discerned, namely Mercury, with his accustomed attributes, the caduceus and purse. The seal is of pointed oval form; dimensions, slightly more than an inch by seven-eighths. The silver rim is inscribed as follows:—+ SIGILL' : IOHANNIS : LE FVRMAGER. A star and crescent are introduced in a little space over the gem. Date, thirteenth century. The name Le Furmager, Formager, Le Formger, also Furmage, Formage,

&c., occur repeatedly in the Hundred Rolls, but Mr. Elsted has not found it in connection with Kent. It is doubtless one of the numerous names derived from trade or occupation; the dealers in cheese, *fourmagiers* or *fromagiers*, were numerous in mediæval times. It appears by the *Taille* taken in Paris in the reign of Philippe le Bel that, in 1292, there were not less than eighteen *Fourmagiers* in that city. The name is still to be traced, as suggested by Mr. Lower, in the modern Firminger or Furminger, given in his *Patronymica Britannica*.

By Mr. R. R. CATON, F.S.A.—Two silver matrices purchased at Boulogne. One of them, date early in the thirteenth century, is of circular form, diameter three quarters of an inch; the handle six-sided, terminating in a trefoiled opening; the device is an escutcheon charged with a bend between a lion rampant and three cinquefoils in base. This escutcheon is placed within a sex-foiled panel or compartment; in the spaces between its cusps, around the margin of the seal, is the legend—s' IANO LE RICHE. The Christian name may be a diminutive of Jehanot, equivalent to our familiar name Johnny; the surname is probably *le Riche*, one of common occurrence. The other matrix, date the latter half of the fifteenth century, is likewise of circular form; diameter about $1\frac{1}{2}$ in.; the handle is a piece of open scroll-work attached by a hinge to the reverse of the seal, on which two little crosses are engraved, marking the top of the matrix. The device is St. Martin on horseback, dividing his cloak with his sword; a diminutive cripple crouches at the side of the horse. Legend, s' SECRETVM CIVITATIS . AMERSWILER. We are informed by Dr. Keller that Amersweiler or Mari-villier is a town near Colmar, dep. Upper Rhine.

May 4, 1866.

The Marquess CAMDEN, K.G., President, in the Chair.

The Rev. J. L. PETIT, F.S.A., read a memoir on Mediæval Architecture in the East. He placed before the meeting a large series of drawings executed by Miss Petit and himself in the course of a recent tour in Greece and Egypt. The memoir is printed in this volume, with numerous illustrations presented by the author with his wonted kindness and liberality.

Mr. R. H. SODEN SMITH, F.S.A., read some observations on the jewelry and decorations of the portraits now exhibited at South Kensington. He illustrated his remarks by the exhibition of several personal ornaments, similar to those which appear in the portraits to which he referred. In the discussion that ensued some interesting particulars were stated by Mr. Octavius Morgan, M.P., and by Mr. George Scharf. It was pointed out that the black jewels frequently to be observed in portraits, especially those of the sixteenth and seventeenth centuries, were probably intended to represent diamonds. The artists of that period, unable to give the effect of great brilliancy, by which the diamond is characterised, contented themselves with a conventional mode of delineating that precious stone. Mr. Soden Smith's remarks will be given fully hereafter.

Mr. JAMES YATES drew attention to a letter which appeared in the *Daily News*, February 26, showing the imminent danger to which the venerable Benedictine Monastery of Monte Cassino is exposed by the intended law for the extinction of all ecclesiastical corporations. This letter, written by Mr. Oscar Browning, one of the Masters of Eton, correctly describes the circumstances. It shows what strong claims Monte

Cassino has on students of archæology and all friends of literature, in consequence of the services which it renders to learning, and which it has rendered for 1500 years. "If we are saved," said one of the monks to Mr. Browning, "it will be by the public opinion of Europe." Mr. Yates had made further inquiries from Signor Bartholomeo Cini, a man of influence and distinction and especially well-informed, at Florence. This gentleman writes as follows:—

"I have spoken to several members of our Parliament, and in particular to the Minister of Public Instruction, who introduced the law for the abolition of religious corporations. It cannot, it seems, be expected that any exception in favor of the abbey of Monte Cassino can be introduced into the law itself. It is occupied by the Benedictine monks, who occupy also several other convents in Italy, in which they no longer study as in former times, but absolutely do nothing. The law does not abolish one convent before another, but one order of monks before another. Hence it would either be necessary to except the entire order of the Benedictines, and consequently all the convents which they inhabit, or to leave the law to be applied to the convent of Monte Cassino as well as to the others. It is not to be inferred that the great services formerly rendered to civilisation by Monte Cassino have been forgotten, and that in the frenzy of reformation it is wished to destroy a monument, which, as you say, is an ornament and an honour to Italy. The Minister has assured me, that the means will be found of maintaining Monte Cassino in its present condition by establishing in it some school or other institution, by which the monument may be preserved, and the studies, formerly the glory of the Benedictines, be continued in it. If I shall obtain any further information upon this subject, which, you may be assured, here engages the attention of all friends of science and the arts, I shall lose no time in communicating it to you."

Notwithstanding the consolatory style of this letter, and the good intentions which it expresses on the part of the Italian Government, Mr. Yates could not help fearing that this singularly valuable and meritorious establishment may be swept away with the others. It appeared to him expedient that, if popular clamor or financial necessity inclined the Italian Parliament to such a step, it might be arrested by the representations of men of learning, character, and high social position in this country, since our feelings are as friendly as possible, and we look with sympathising interest on the brave struggles of that highly-cultivated people.

In supporting the appeal thus made by Mr. Yates, Dr. Rock said that all who heard him could readily believe how deeply he thought and how warmly he felt upon the subject now before them. On the score of religion, justice, and ethics, he was strongly opposed to the contemplated suppression and spoliation of all monastic houses in Italy. Putting, however, aside these objections, he thought that he saw a ground common to all present—to every Englishman, in fact,—standing together upon which they might warrantably upraise a loud entreating cry in behalf, if not of the possessions of the Benedictine Order, at least of Monte Cassino, which ought to be now, as much as it had once been, dear to every Englishman. Of a surety he was not telling them for the first time what they did not know before, but merely bringing back to their minds the fact that, if Monte Cassino did not send forth those devoted men who towards the end of the sixth century brought Christianity, with all its softening, elevating,

civilising influences to this, for the most part, then heathenish island, Monte Cassino undoubtedly was the cradle that nursed those masters who taught the self-denying band sent by St. Gregory the Great to evangelise the Anglo-Saxons. Those forefathers of ours soon forsook the rites of Woden for a belief in the Gospel, and, laying aside their superstitious songs, learned to sing the hymns of the Church to the music of Rome, and after the just-found notation of her England-loving pontiff. That was not all: our land quickly became fruitful in great and good and holy men, and took and kept a high place for learning, zeal, and civilisation among the nations. Through those same countrymen of ours the ages that have been miscalled dark became, as far as this country was concerned, the ages of learning, progress, and jurisprudence—in fact, of light. Few are the large towns in England in our own days that have not grown out of some Benedictine monastery, around which our fathers had built their houses for instruction and protection, and were taught the various arts that sweeten life. Many were the men who were trained in learning within those cloistered walls; many were the worthies who went forth, like those of old from Monte Cassino, to scatter blessings on their path. While Wilfred was busy in raising, at Hexham, a church surpassing in splendour anything that had been seen on this side of the Alps, he was rearing in his school a youth, Eddi, who soon after knew how to appreciate, at the same time that he was able to describe in elegant Latin, all the beauties of the building. The same prelate, as he taught the use of nets to his countrymen when they were suffering starvation, though they lived by a sea full of wholesome fish, let them understand how, for the future, hunger and famine might be driven from their shores. At every one of his journeys to Rome, Benet Biscop came home more laden than before with costly *codices* of Holy Writ, with profane literature also, and works of sacred art, to enrich the libraries of his two monasteries; whilst for the adornment of the churches he was building, he drew with him from Gaul the ablest artificers in glass. Boniface went forth from his cell in Devonshire as a missionary, and by his preaching brought over from heathenism so many of the German people that even now he is by them looked upon as their apostle, especially as in their cause he received the martyr's crown. If Beda kept to his humble cloister at Jarrow, it was to write those books which to our days have been the delight and study of the Christian world. From his beloved York our Alcuin was called, by no less a personage than Charlemagne, to arouse by his extensive and varied learning the whole of Gaul from that deep sleep of ignorance into which it had been cast; and for the purpose that king enabled the Anglo-Saxon monk to set up schools and to open universities wherever he thought fit.

Beginning from the moment when he won from his fond mother, by being able to read it, the wished-for psalter, so bright with gilding, so gay with the illuminations on its pages, wrought by some Benedictine's hand, our great Alfred, to his death's day, never halted in his glorious work of raising this country to a high pitch of grandeur by his laws, his learning, and his piety. To him ought we to be deeply indebted for much that we enjoy in our present civilisation, and that freedom which we so warmly love.

In looking back with warrantable pride upon such men, and deeming them, as we may with reason, the glory and light of those ages in which they severally lived, we ought not to overlook the fact that, after a manner, Monte Cassino was one at least of those fountains which helped to enrich

our native land with moral worth, and enable one of her great sons to convert the German race to Christianity, and another to become the restorer of learning all over Gaul. Monte Cassino must not be forgotten in its present strait. Besides this, the hospitality which that establishment exercises—has always exercised with bountiful willingness—towards every scholar, to every wayfarer, no matter his religion and his country, gives it an especial claim to our sympathy. More than this, from the earliest period in our history up to this same year, English guests—no matter what or who—have always been, as they yet are, heartily welcomed there. What is more, scarcely ever did an Anglo-Saxon prince or wealthy thane go on pilgrimage to Rome but he also went to pay his devotions in the church of Monte Cassino; and often, often, did he leave behind him there an offering of money, in grateful token of the benefits bestowed by men from that house on his country. No doubt if the early records of the monastery were examined it would be found that many a broad acre of its present property had been bought by Englishmen's gold.

In the English heart, said Dr. Rock, the feeling of gratitude for kindnesses oftentimes received will never die away, though ages may have past since the boon was bestowed. By every right-minded Englishman, learning, gentleness, and hospitality will always be duly appreciated, and those who practise the sweetest humanities of life towards rich and poor will ever be upheld and protected. For these reasons, besides others that might be noticed, Dr. Rock desired heartily to support the appeal so opportunely made by our much esteemed member Mr. James Yates.

Mr. Octavius Morgan, M.P., the Rev. J. Horner, and the Rev. C. W. Bingham offered some remarks on the same subject. On Mr. Morgan's suggestion it was determined that the question should be referred to the Central Committee for their consideration in regard to the course that it might be advisable to adopt on behalf of the Institute.

Brig-General LEFROY, R.A., offered some remarks on a helmet lately obtained for the Museum of Artillery, Woolwich, and attributed to the early part of the fourteenth century. It will be more fully noticed hereafter.

Antiquities and Works of Art Exhibited.

By Mr. W. F. VERNON.—A convex glass paste, here figured, same size as the original. It was found at Rome in 1845, by Mr. Vernon, on the



property of the King of Naples, on the Palatino Hill, where excavations were in progress at that time. The paste is of dark purple or maroon

color. The device, in intaglio, is the Christian monogram composed of the letters Chi and Rho, with the inscription in Greek characters, ΦΟΙΒΕΙΩΝ, and two palm-branches. Various interpretations of this legend have been proposed. The letters, forming possibly two words, may signify possibly *ωρ*, the interjection *heus*, alas! and Phoebus, or Phoebe, both occurring amongst Roman names. Ficronius, in his *Gemmæ Litteratæ*, illustrated by Galeotti, Rom. 1757, pl. vi. fig. 8, p. 43, has figured a gem inscribed likewise ΦΟΙΒΕ—ΙΩΝ, in two lines, although probably forming one word. Galeotti observes that he was unable to determine whether the inscription is the name *Phoebion*, in the singular, or *Phoebiorum*, genitive plural, denoting two or more persons bearing the name of a family.

By Mr. E. GREAVES.—Three specimens of the enameled work of Limoges, consisting of a circular *plaque*, the portrait of some personage of note at the period; it bears the motto *Plus ny accorde*: a dish painted by Suzanne Courtois, and a remarkable oblong *plaque*, representing the Entombment of Our Lord.

By Brig.-General LEFROY, R.A.—A remarkable iron shield and a head-piece, lately presented to the Museum of Artillery, at Woolwich, by Mr. J. Drummond Hay, by whom they had been rescued from a large store of armour that existed some thirty years since in a vault of the Castle at Tangiers, and of which information had been given by Mr. W. Vernon. The armour had subsequently been removed by the officials of the Bey, and unfortunately destroyed or lost. The Very Rev. Canon Rock observed that in a painting at Granada the Moslem knights appear bearing shields precisely similar to that exhibited. He stated that, about 1836, he had obtained at Tangiers a shield, a breast-plate, and a skull-cap from the hoard of armour in the Castle; the shield was heart-shaped, with a broad band down the middle, and two wide bosses with rings, one on either side, from which were suspended tasseled cords. The shield appeared to have been covered with red tissue. On his return to Spain Dr. Rock visited Granada; he noticed with some surprise at the high altar of the cathedral numerous figures of the Moslems wearing such head-pieces with white turbans around them, and with shields of precisely the same fashion as that exhibited. The *rétable* of the altar—a remarkable sculpture in wood, colored—represents in its lower division the capture of Granada from the Moors. There was at Alton Towers a heart-shaped shield similar to that now at Woolwich; it was presented to the late Earl of Shrewsbury by Canon Rock, but we have been unable to ascertain where it is now preserved.

By Capt. E. HOARE.—A silver seal of the sixteenth century, long preserved by his family, and engraved with their arms—a two-headed eagle displayed within a *bordure* enrailed: the initials E. H. and the date 1517 are introduced in the field.

IMPRESSIONS OF MEDIEVAL SEALS.—By Dr. KENDRICK, M.D.—Series of casts from the Imperial *bullæ aureæ*. These remarkable seals have been described by writers on Sphragistic art, especially by Thulemarus, in his Treatise "de Bulla aurea," Francof., 1724, where may be found figured the bulla of the Emperor Charles IV. The collection of casts exhibited had lately been obtained from Francofort; it comprised obverses and reverses of the golden bulls of Frederic II. (1218-50), Rudolph I., Louis IV., Charles IV., Sigismund, Frederic IV., Maximilian I., Ferdinand I., Maximilian II., Matthias, Francis I., and Leopold II. (1790-92).

Archaeological Institute of Great Britain and Ireland.

BALANCE SHEET FOR THE YEAR 1865.

RECEIPTS.

	<i>£</i>	<i>s.</i>	<i>d.</i>
Balance at the Bankers', Dec. 31, 1864	83	6	5
" in the Treasurer's hands	25	19	4
" Petty Cash	21	18	9
Annual Subscriptions, including Arrears	913	9	0
" paid in advance for 1846	10	10	0
Entrance Fees	24	3	0
Life Compositions	43	0	0
Sale of Publications, &c.	66	16	6
Balance of Receipts, Dorchester Meeting, including Donations in aid of Local Expenses	297	6	6
Donations towards Illustrations for the Journal	6	0	0
" Expenses of Exhibition of Mr. Winston's Drawings	8	15	3

£960 5 7

EXPENDITURE.

	<i>£</i>	<i>s.</i>	<i>d.</i>
Publication Account:	489	0	0
Messrs. Bradbury & Evans, for Printing Journal	46	5	0
Drawing and Engraving	475	5	6
Household Expenses:	163	10	0
Rent of Office, five Quarters to Christmas, 1866, inclusive	13	13	8
Hire of Meeting Room, &c., Arundel Society	70	0	0
Secretary's Salary	3	0	0
Insurance	14	13	9
Mr. Nixon, for Shelves, Screen for Exhibition of Mr. Winston's Drawings, &c.	18	2	1
Stationery, Printing Circulars, &c.	281	10	6
Library Account:	11	12	1
For Books purchased, Binding, &c.	24	12	7
Petty Cash Disbursements:	17	15	10
Messengers and Attendance	12	11	7
Postage, and delivery of Journal	12	11	7
Attendance, &c.	1	8	6
Coals and Gas	1	1	0
Repaid to Mr. Neblitt (Subscription twice paid)	13	8	4
Postage, Carriage of Objects for Exhibition, &c.	1	0	0
Repairs of Exhibition Cases	1	12	6
Warwick Accounts (omitted)	76	10	4
Balance at the Bank, Dec. 31, 1865	67	13	6
" in Treasurer's hands, including Petty Cash	46	4	8

£960 5 7

Examined and found correct, May 28, 1866.

Signed { WALTER D. JEREMY, }
 { W. WARWICK KING, } Auditors.

Submitted to the General Meeting, in London, on May 29, 1866; unanimously approved and passed.

(Signed) CHAS. S. GREAVES, *Chairman.*

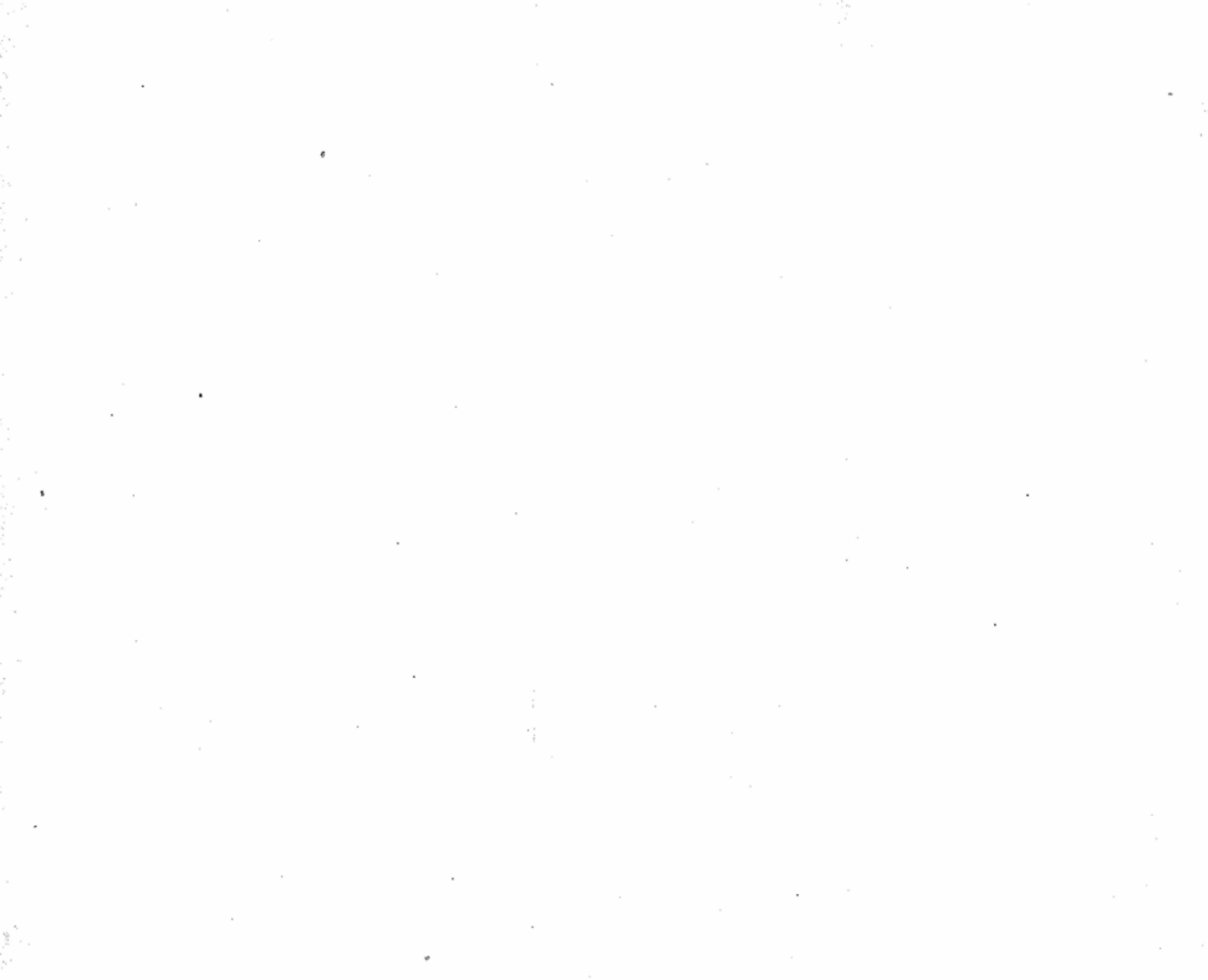
Archaeological Intelligence.

IN accordance with the desire for some memorial of the meeting of the Institute in London, it is proposed to publish a selection of memoirs read on that occasion that appear of special value, in illustration of the Antiquities or the Annals of the Metropolis. A volume, comprising the chief "Contributions towards the History of Old London," is announced by Mr. Murray as in forward preparation; it will range with the Journal and publications of the Society. The Dean of Westminster contributes an Introductory Discourse, as President of the Historical Section; and Mr. Beresford Hope, M.P., President in the Architectural Section, will give his inaugural address, bearing specially on the chief architectural features of the metropolis, ancient and modern. Professor Westmacott, R.A., gives a critical dissertation on Mediæval Sculpture, as exemplified in Westminster Abbey; and it is hoped that Mr. Scott, R.A., will take, as his subject, the recently-developed features of the Chapter-House. Amongst other memoirs selected for Mr. Murray's promised volume will be the elaborately illustrated Architectural History of the Tower of London by Mr. G. T. Clark, and a Discourse on its Historical Association by Mr. Hepworth Dixon, F.S.A. Mr. Foss gives the Legal History of Westminster Hall; Mr. Burt has taken a subject which he cannot fail to invest with interest—the Historical Treasures preserved in the Public Record Office. A Memoir on London, during the stirring events of the times of Stephen, is supplied by the Rev. J. R. Green; and a valuable contribution to the annals of art in the metropolis is promised by Mr. Scharf, relating to the Royal Picture Galleries, and the vicissitudes that they have undergone.

The first portion of the great palæographic undertaking by Professor Stephens of Copenhagen, and lately published there, has been received in this country. The work will comprise the old Northern Runic Monuments of England and Scandinavia, represented with the most scrupulous accuracy. The first part, consisting of about 150 plates in folio (with 362 pp. of letterpress) may now be obtained from Mr. Russell Smith, Soho Square; price £2. 10s.

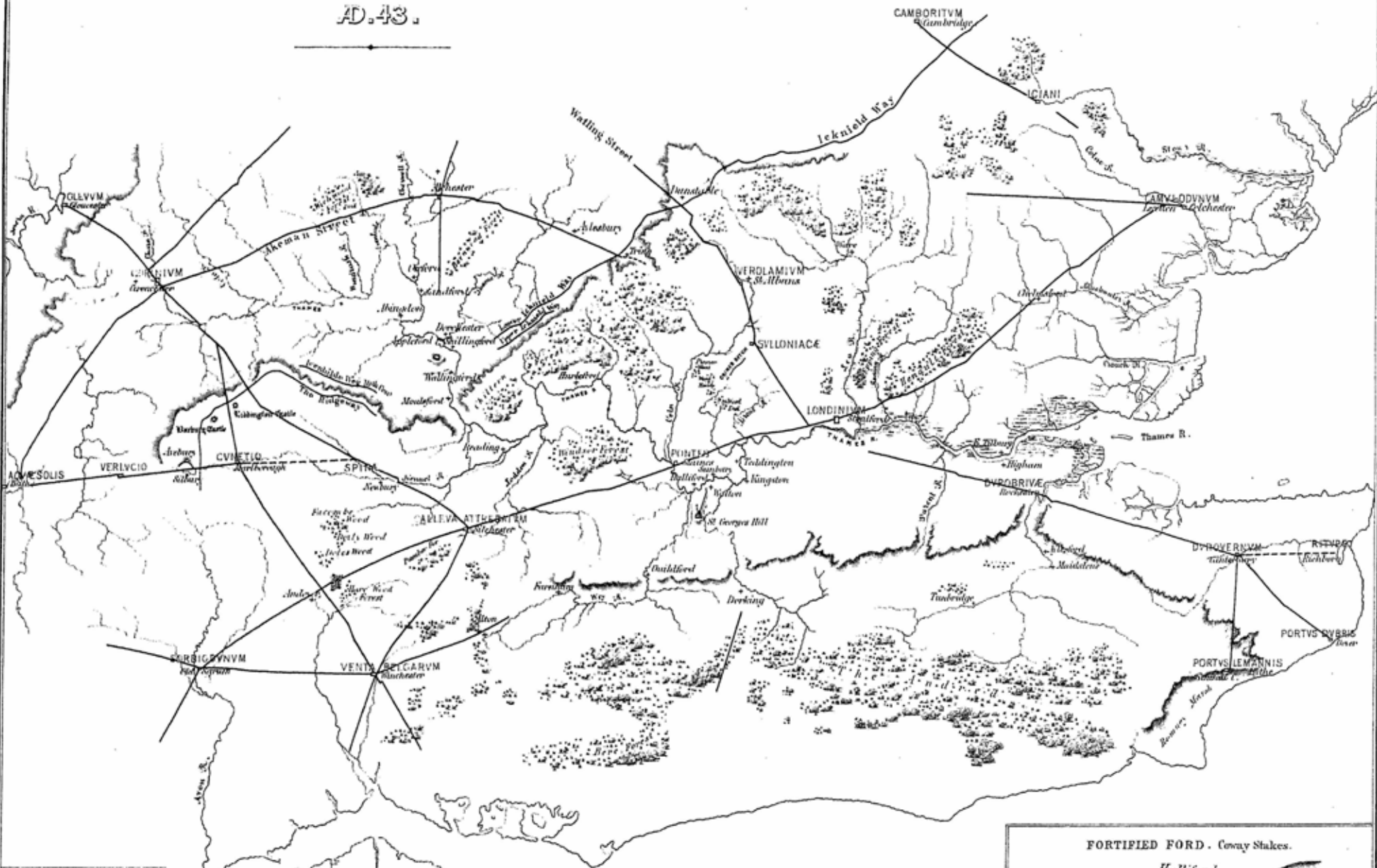
We would recommend to our readers the translation of the work by the late Director of the Flensburg Museum, Conrad Engelhardt, a collection to which we formerly invited attention. It is entitled "Denmark in the Early Iron Age, illustrated by discoveries in the Peat-mosses of Slesvig." The volume, in royal 4to, price 31s. 6d., recently published by Messrs. Williams and Norgate, is largely enriched with engravings and maps.

Mr. Henry Shaw, F.S.A., whose tasteful reproductions of illuminated ornaments, the dresses and decorations of the Middle Ages, are so justly admired, announces a Handbook of the Art of Illumination as practised in Mediæval times, with a description also of metals, pigments and processes employed. The volume will contain sixteen plates selected from the choicest examples of English, Flemish, French, German and Italian Art, from the ninth to the sixteenth century. Specimens of the plates may be seen at the residence of the author, 103, Southampton Row.

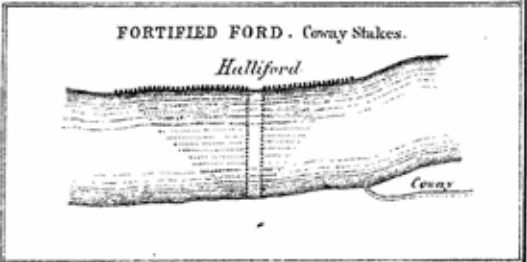


CAMPAIGN OF AULUS PLAUTIUS.

AD. 43.



NOTE.
 Roman Roads ———
 British Trackways ~~~~~
 Boundary Dykes - - - - -



The Archaeological Journal.

SEPTEMBER, 1866.

THE CAMPAIGN OF AULUS PLAUTIUS.¹

By EDWIN GUEST, LL.D., Master of Gonvil and Caius College, Cambridge.

BEFORE we can discuss with advantage the campaign of Aulus Plautius in Britain, it will be necessary to settle, or at least endeavour to settle, certain vexed questions which have much troubled our English antiquaries. The first of these relates to the place where Cæsar crossed the Thames. Cæsar tells us (B. G. v. 11) that "the river called Tamesis divided the country of Cassivelaunus from the maritime states about eighty miles from the sea;" and, in another passage (B. G. v. 18), that "he led his army unto the river Tamesis to the country of Cassivelaunus. The river was passable on foot only at one place, and that with difficulty. When he came there, he observed that there were large bodies of the enemy drawn up on the opposite bank. The bank, also, was defended with sharpened stakes fixed in front, and stakes of the like kind were fixed below under water, and concealed by the river. Having learnt thus much from the prisoners and deserters, Cæsar sent forward the cavalry and immediately ordered the legions to follow them; but the soldiers went at such a pace and with such an impetus, though they had only the head above water, that the enemy could not resist the impetus of the legions and the cavalry, but deserted the bank and took to flight."

According to Orosius, "nearly the whole ford under water" was covered with the stakes; and Bede, when he copies the statement, adds (H. E. i. 2), "The remains of the

¹ This discourse was delivered in the Archaeological Institute in London, July 19, 1866.

stakes are to be seen there to this very day (*usque hodie*) ; and it appears, upon inspection (*inspectantibus*), that each of them was as thick as a man's thigh, and that they were covered (*circumfusæ*) with lead, and fixed immovably in the depths of the river." Bede never saw the Thames ; but it is not difficult to point out the man from whom he derived the information he has handed down to us. In the opening of his Ecclesiastical History he acknowledges his literary obligations to a London priest named Nothelm. Nothelm was a Londoner born, and died Archbishop of Canterbury, and there can be little doubt he was Bede's informant. It appears, therefore, that in Bede's time, that is, seven or eight centuries after Cæsar's invasion, there was some place on the Thames where the bottom of the river was covered with stakes, and which educated men, who must have been well acquainted with the river and its neighbourhood, considered to be the place where Cæsar crossed it.

Camden was the first of our modern antiquaries to direct attention to this subject. He lighted on a place near Walton called "Coway Stakes," and as it was "about eighty miles from the sea," and as he found there stakes driven into the bed of the river, he fixed upon it unhesitatingly as the place where Cæsar crossed the Thames. It is probable that many of the stakes had been removed even before Camden's time, owing to the requirements of the navigation ; but a considerable number of them were, no doubt, remaining when Gale visited the place in 1734. He tells us (Arch. i. 183), "As to the wood of the stakes, it proves its own antiquity, being, by its long duration under water, so consolidated as to resemble ebony, and will admit of a polish, and not in the least rotted. It is evident from the exterior grain of the wood that the stakes were the entire bodies of young oak trees, there not being the least appearance of any tool to be seen upon the whole circumference, and if we allow in our calculation for the gradual increase of growth towards its end where fixed in the river, the stake, I think, will exactly answer the thickness of a man's thigh, as described by Bede ; but whether they were soldered with lead at the end fixed in the bottom of the river is a particular I could not learn : but the last part of Bede's description is certainly just, that they are unmovable, and remain so to this day."

At present, when a pile is driven into the bed of a river, it

is shod with iron, and also has its upper end strengthened with bands of iron, to prevent its splitting. The stakes could hardly have been shod with so soft a metal as lead; but as iron was costly (*ejus exigua est copia*, B. G. v. 12), and lead was produced even at that early period in great abundance, the latter metal may have been used to wrap round the stakes, to give them greater stiffness. The uppermost plates of lead must have been removed when the stakes were sharpened, and the rest may have been stripped off in later times by the fishermen.

Hitherto there had been a pretty general agreement among our antiquaries as to the locality of Cæsar's ford. But, soon after Gale's visit, Daines Barrington went to Coway, and thought he had discovered a "decisive proof" that the opinions prevalent on this subject were erroneous. A fisherman, who "had been employed by some gentlemen to take up the stakes at that place," told him that the stakes were ranged *across the river*, and, consequently, not in a position to oppose any impediment to Cæsar's passage. He refused therefore to consider them to be the stakes referred to by Cæsar, and suggested that they might be the remains of some fishing weir. At the beginning of the present century, Bray, the editor of Manning's "History of Surrey," paid a visit to Coway, and was told that the stakes were ranged across the river *in two rows*, some nine feet apart. The fisherman, his informant, had weighed several of the stakes, each as thick as his thigh and shod with iron, and sold them for half-a-guinea a piece to a foolish antiquary. Only one stake was then remaining. Bray seems to have been half inclined to adopt the fisherman's notion, that the stakes were the remains of a bridge.²

All this conflict of opinion appears to have arisen from a false assumption. Our antiquaries assume that the stakes were fixed in the bed of the river merely to prevent Cæsar's passage. I believe them to have been fixed there for a very different purpose, years before Cæsar came into the island. I think the stakes formed part of what may be called a fortified ford, and were distributed so as to stop all transit over the river,

² Manning and Bray, History of Surrey, vol. ii. p. 759. A "Coway Stake" is preserved in the British Museum. It was obtained in 1777, as noticed Arch.

Journ. vol. xvi. p. 203, where also another, in possession of the late Earl of Shrewsbury, is described.

save along a narrow passage, which would bring the passenger directly under the command of the watch, stationed on the northern bank to guard the ford and to receive the toll. The shallow at Coway was probably of considerable extent, and through its whole length must have extended the line of stakes which Cæsar observed on the northern bank. But there must also have been two other lines of stakes across the river to mark out and define the passage. The remaining portion of the shallow was, no doubt, covered with the short stakes that were "concealed by the river." These contrivances agree with the means of defence which we know were adopted in other instances. There are ancient strongholds in Ireland, the front of which still bristles over with jagged pieces of rock fixed in the ground, evidently for the purpose of impeding the advance of an assailant.

That such was really the disposition of the stakes may, I think, be gathered, not only from the reports of the fishermen, but also from Cæsar's narrative. When he saw the Britons ranged along the northern bank with the stakes in front of them, he ordered the cavalry to pass the river, and the legions to follow them. How could either cavalry or infantry cross the river if the stakes were ranged as our antiquaries assume them to have been? The passage could have been effected only by a miracle.

The Emperor of the French has seen the difficulty, and endeavours to meet it. He supposes that Cæsar sent the cavalry across the river at some place, either above or below the ford, to take the Britons in flank, and that the soldiers then removed the stakes, when the legions hurried across the river in the way described by Cæsar. As the river was fordable "only at one place," the cavalry, on this hypothesis, must have swum the river. But to swim cavalry over such a river as the Thames is not a military operation of every day's occurrence. Can we suppose, if it really took place, that Cæsar would have made no allusion to it? Besides, what were the Britons doing while the Roman soldiers were removing the stakes in front of them? It is clear they did not break till the legions reached them. Cæsar says not a word about taking the Britons in flank, nor about removing the stakes. The whole is mere hypothesis—hypothesis not only unsupported by Cæsar's narrative, but, as it appears to me, inconsistent with it. When he had sent the cavalry across

the river, he ordered the legions "*subsequi*." I submit that this means to follow *immediately* after, or, in other words, in company with the cavalry. The employment of the two arms together seems to have been one of Cæsar's favourite tactics, and, in describing it, he sometimes uses the very same phrase as on the present occasion, *e. g.*, when describing his pursuit of the Belgæ (B. G. ii. 11). There can be little doubt that Cæsar's attack was made in front, and that the enemy's position was carried by what, in modern military language, is called "a rush." It was a daring attempt, and not without its peril; but Cæsar well knew the men he commanded, and he was successful.

The Emperor sent over engineer officers to examine the present state of the river near Coway. They reported that there was no ford at Coway, but that there were several fords to the eastward—a piece of information which had been long familiarly known to English antiquaries. The Emperor reasons thus: the tide ends at Teddington—the name of which he tells us means Tide-end town—and as Cæsar would hardly select a spot for crossing the river where he might be interrupted by the tide, he must have passed it west of Teddington. Of the various fords between Teddington and Coway, the Emperor selects the one at Sunbury as being, in his judgment, the most convenient.

The fallacy which runs through this reasoning is a patent one. The Emperor reasons from the present to the past without taking any note of the changes that have occurred during 2,000 years. In the time of Cæsar the river ran from the high levels of Gloucestershire and Oxfordshire to the sea—uninterruptedly. *Now*, from Teddington westward it is a canal, crossed every two or three miles by weirs and locks; in short, a mere string of pounded waters rising step above step till they reach the high levels of which we have been speaking. The tide comes up to Teddington Lock, and there, of course, it ends; but as the lock did not exist in the time of Cæsar, any inference drawn from the fact that the tide now ends there, is beside the question. How can we argue from the present artificial state of the river to its state in the time of Cæsar? Its scour must be different, its deposits must be different—to say nothing of the dredging machine, which has been at work year by year from a period antecedent even to the construction of the locks. The river

now falls over a weir in a cascade some six feet high, hurries along for a mile or so with a strong current, and then gradually slackens its pace till half-a-mile or three-quarters of a mile before the next weir it becomes a pond, with hardly a ripple on its surface. It then tumbles over the weir, and the process is repeated. The consequence is, that the silt and gravel beneath each weir are torn up, carried down by the current, and deposited in the still water, so that before each weir there is a tendency to form a shallow, over which in one or more places a man may, in certain states of the river, wade across it. These are the fords which the French engineer officers have brought under the notice of the Emperor. The shallow at Sunbury is a mere consequence of Sunbury weir. Remove the weir, and Cæsar's ford at Sunbury would be swept away in a twelvemonth by the natural scour of the river.

I have argued that the fords noticed by the French officers have been produced entirely by the present artificial conditions of the river. But there is one shallow which is due to a very different agency, to causes, indeed, which must have been in operation even as early as the time of Cæsar. A spring-tide, when backed by an east wind, comes up to Teddington Lock in great force, and sometimes rises above the weir and sweeps up the river to the next lock. The consequence is an accumulation of silt and gravel in front of Teddington Lock, which is a serious impediment to the navigation, and on which barges may sometimes be seen aground for days together before they can enter the lock. I think it probable that when the river was in its natural state, these spring-tides ran up the river eight or nine miles further—in other words, to Coway; and that the deposit which they now leave at Teddington then contributed to form the shallow over which Cæsar passed. This is, of course, mere conjecture; but I submit it as a reasonable one.

There is one means of arriving at a conclusion on this much-vexed question which has hitherto been neglected—I mean the topography of the Thames valley. When we find a village or hamlet on the banks of a stream bearing a name which ends in the word *ford*, we may infer with certainty that, *at the time the name was given*, there was a ford in the neighbourhood of such village or hamlet. Such names are frequent on the upper Thames, *e.g.*, Oxford, Shillingford,

Wallingford, Moulsoford, &c., and even in the forest district round Marlow we have Hurlyford; but from Hurlyford to the sea, a distance of nearly 100 miles, taking into account the windings of the river, there is but one place on the banks of the Thames bearing a name which indicates a ford over it. This solitary place is Halliford, at the Coway stakes. Cæsar says there was but one ford on the Thames—meaning, of course, the lower Thames, with which alone he was acquainted, and we now have but one place on its banks the name of which points to the existence of a ford. Our topography is in perfect agreement with his statement; and, to my mind, this coincidence is almost decisive of the question.

In this inquiry it is well to keep in mind the distinction between a ford which is passable under the ordinary circumstances of the river, and a shallow which can only be crossed under circumstances that are special and extraordinary. There are shallows on the Thames, some of them lying east of Teddington, which certain fishermen will tell you can be waded over, while others will as stoutly deny that such is the case. I think it probable that in seasons of drought, or at low ebb with the wind in a particular quarter, men may have passed over these shallows. In the year 1016 Edmund Ironside twice led his forces over the Thames at Brentford; and there are antiquaries who, coupling this fact with the indications of a ford furnished by the name of Brentford, have inferred that there was once a ford over the Thames at that place. But the name of Brentford had no reference to a ford over the Thames; it certainly designated the ford over the Brent by which the Roman Road from London to Staines crossed the latter river. Edmund's passage of the Thames must have been attended with great peril, for we are told in the chronicle that "there was great loss of English folk by drowning, owing to their own carelessness." We can readily understand that the silt brought up by the spring-tides would leave deposits behind it in the bights of the river and also in the tails of the several "eyots"—some of which, by-the-by, lie off Brentford—and when the scour of the river was weakened by the erection of a bridge at London, these deposits would naturally tend to form shallows. Little is known of the bridge which spanned the river in the eleventh century, but we may assume that like its successor it rested upon huge substructions, and con-

sequently that its action on the tides and the scour of the river was very similar to that of Old London Bridge. The reader will hardly need to be reminded how the old bridge dammed back the water at ebb of tide, and how greatly the scour of the river was increased when this impediment was removed. But there are probably few that have troubled themselves to inquire how far the effects resulting from the altered conditions of the river extended. If my information can be relied on, and I think it trustworthy, these effects were more or less felt as high up the river as Teddington. In Cæsar's time, before London bridges were thought of, or London itself existed, I believe the downward current swept every obstruction before it from the Coway stakes to the Nore.

I must now briefly call attention to the districts which Roman geographers recognised in this part of Britain, or rather, I should say, which Ptolemy recognised, for he is our great authority on the subject. Cantium may be said, speaking roughly, to be represented by our modern Kent, and the country of the Trinobantes, which had for its capital Colchester (*Camulodunum*), by our modern Essex. West of the Trinobantes were a people whom our antiquaries call the Catyeuchlani. I have no doubt this is a blundered name. It is only used by Ptolemy, and by him only on one occasion. Dion calls the people the Kataouellanoi, and in a Cumberland inscription they are called the Catuvellauni. Catuvellauni is merely the Latin form of the Greek name Kataouellanoi; and I shall henceforth give this very important tribe the name of Catuvellauni. Their principal town was Verulam. South of the river were the Atrebates, with Silchester for their capital, and further west were two other tribes—the Dobuni, whose principal town was Cirencester, and the Belgæ proper, two of whose towns were Old Sarum and Winchester. I call the last tribe the Belgæ proper, to prevent any false inference. The Atrebates were just as much a Belgic race as the Belgæ proper; and the same may be said of the Catuvellauni and of the different tribes who ruled in Kent. The people of Winchester and Old Sarum may have been called the Belgæ specially, because they were the earliest settlement of that race in Britain.

To trace the boundaries of these different tribes is a question of great difficulty, but of still greater interest. On the

northern borders of Middlesex is an earthwork, called by the peasantry of the neighbourhood the Grimesditch. It runs for about two miles to the North-Western Railway, and fragments of it may be found west of the line. Its ditch is to the south, and it must, therefore, have been a boundary of the Catuvellauni. It appears to have reached the woodland which once seems to have shut in the Colne valley on the east, and in the other direction I have little doubt that it was connected with the earthworks which surrounded the British town of Sulloniacæ (Brockley Hill). But the whole face of the country in that neighbourhood has been long since torn up for brick-earth, and the dyke has consequently disappeared. Whether it was continued east of Sulloniacæ I cannot say. Possibly forest may have filled the whole space between the Lea and Sulloniacæ; at least, this is the only explanation I can give of the curious turn which the Roman road makes at Tyburn. I would then draw the boundary line of the Catuvellauni from Brockley Hill along the Grimesditch to the woodland, down the woodland to the Brent, and so down the Brent to the Thames.

As the western boundary of the Trinobantes was undoubtedly the marshy valley of the Lea, the question naturally arises, what became of the district between the Lea and the Brent. Here we have the larger part of the metropolitan county unaccounted for. I believe this district, whose market value at the present time is greater than that of any other district of similar extent in the world, was, in the early times of which we are now speaking, merely a march of the Catuvellauni, a common through which ran a wide trackway, but in which was neither town, village, nor inhabited house. No doubt the Catuvellauni fed their cattle in the march, and there may have been shealings there to shelter their herdsmen, but house for the usual purposes of habitation I believe there was none. We have Cæsar's authority for saying (B. G. iv. 3) that the imperfectly civilised races of that period prided themselves in having a belt of desolate country around their settlements, and I have little doubt that between Brockley Hill and the Thames all was wilderness, from the Lea to the Brent.

The subject of these boundary dykes is so important, that I make no apology for calling the reader's attention to two others, which belonged to the Atrebates. The Roman road

connecting their capital, Silchester, with Old Sarum, no doubt was preceded by a more ancient British trackway. This trackway ran between two masses of forest, remains of which still exist; and in the opening between the forests, a little to the north-east of Andover, there are the remains of a dyke, which I have no doubt once shut in the whole space between the woodlands. The ditch is to the west; so the boundary dyke must have been raised by the Atrebates, and here the wayfarer from Old Sarum must have halted and paid the toll. The other boundary dyke has a historical significance, which bears directly upon the question we have already discussed at so much length. From the Coway stakes the ground rises gradually for about three miles, and then dips almost precipitously into the valley of the Wey. On the top of the hill (St. George's Hill) is an ancient British stronghold,³ which commands the whole valley, and as the valley certainly belonged to the Atrebates, I infer that it was this people that constructed the fortress. Aubrey tells us that "a trench" went from this fortress to Walton, and gave that village its name. A dyke still runs from the ramparts towards Walton. I have traced it for more than one-third of the distance, and I have no doubt that it once reached the village, and, as Aubrey conjectured, gave it its name. *The ditch is towards the river.* For what purpose could this dyke have been raised? The only object for which I can conceive it was made, was to bar progress along the trackway which led from the Coway stakes eastward to the maritime states. If such were its object, we have another strong proof that the great means of access to the country of Cassivelaunus was at the spot where Camden placed it.

In the country of the Catuvellauni have been found numerous coins bearing the name of a prince called Tasciovanus, together with the name of Verulam. It has been inferred that Tasciovanus was king of the Catuvellauni, and that he minted money at Verulam. Some of his coins have

"Sur la Colline de Saint-Georges (Saint George Hill), près de Walton sur la Tamise, il n'a jamais existé de camp." —Histoire de Jules César, ii. 191, n. When I read this note, I began to fear that "Caesar's Camp," on St. George's Hill, like so many other of our national

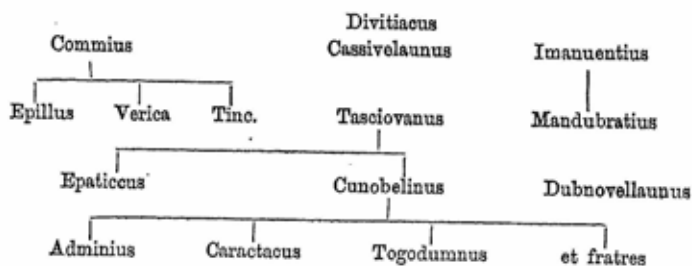
monuments, had been swept away in that mania for "improvements" which has distinguished the last twenty years. But on a visit to Otlands I was glad to find "Caesar's Camp" every whit as perfect as on the day when I first made its acquaintance years ago.

on them the inscription "SEGO." It is supposed that this is an abbreviation of Segontium, which we know from Henry of Huntingdon was a name sometimes given to Silchester; and it has been conjectured that Tasciovanus conquered the country of the Atrebates, and minted money in their capital, Silchester. Coins have also been found in that district, inscribed "EPATICCUS, son of Tasciovanus;" and it would thence appear that Tasciovanus handed down his conquest to his son Epaticcus. In Essex vast numbers of coins are found inscribed with the name of "CUNOBELINUS, son of Tasciovanus." These coins were minted at Colchester (Camulodunum). In the same district we find other coins inscribed with the name of "Dubnovellaunus." It has been inferred that Dubnovellaunus was a successor to, and perhaps a descendant of, Mandubratius, the prince whom Cæsar made King of the Trinobantes, and that he was expelled by Tasciovanus, or by his son, Cunobelinus. On the south of the Thames also are found coins bearing the names of Commius, Epillus, son of Commius, Verica, son of Commius, and Tin or Tinc (the name has hitherto been found only in a fragmentary state), son of Commius. It has been supposed that Commius was the Atrebat whom Cæsar sent over to Britain, where he was said to possess great influence. We know that he afterwards became a deadly enemy of the Romans, and that he fled to Britain to escape their vengeance. It is a reasonable conjecture that this Gaulish chief succeeded in establishing a principality among his countrymen, the British Atrebates, and that he handed down his British dominions to his sons, Epillus, Verica, and that other son with a fragmentary name, Tin... or Tinc...

Dr. Birch, in deciphering the legend, "CUNOBELINUS, son of Tasciovanus," led the way to the Numismatic discoveries on which these historical inferences mainly rest. They are, to some extent, supported by the celebrated "Monumentum Ancyranum." This monument mentions, among other kings who fled to Augustus as suppliants, two British princes, one named DOMNO. BELLAVNVS, and another with a mutilated name, of which only the initial "T" can be made out satisfactorily. It has been supposed that Domno Bellaunus represents the Dubnovellaunus of the Essex coins, and T..., the Tin... or Tinc..., who appears on the coins as the son of Commius. There would be no difficulty

in identifying Dubnovellaunus with Domnovellaunus ; but the division of the name DOMNO. BELLAVNVS presents a difficulty. Perhaps the copies of the inscription may be faulty. It is very important that this portion of it should be copied correctly, for it bears directly upon our British history.

There seems to be little doubt that the Divitiacus, King of the Suessiones, mentioned by Cæsar (B. G. ii. 4), first led into Britain the Belgic tribes which we find settled in the basin of the Thames. He flourished about 100 B.C. The Cassivelaunus who opposed Cæsar must have been descended, if not from the Gaulish monarch himself, at least from one of his officers, and Cassivelaunus may have been an ancestor, perhaps the father, of Tasciovanus. The following scheme will bring at once under the reader's eye the families which exercised lordship in the Thames valley during the century preceding the invasion of Aulus Plautius :—



This scheme differs from the one I exhibited at Cambridge, twelve years back, only in the addition of the name of Epaticcus. The name of this British prince was first made out by Mr. John Evans, the same gentleman who discovered, simultaneously I believe with Dr. Birch, the name Dubnovellaunus.

The invasion of Britain by Divitiacus probably took place about 100 years B.C. Forty-five years afterwards we find the Catuvellauni rapidly working their way to a supremacy in South Britain. The chief result of Cæsar's invasion was the check it put upon their progress. We are told it was the defection of the tribes which mainly led Cassivelaunus to submit, and we know he was compelled to acknowledge, as king of the Trinobantes, Mandubratius, whom he had driven into exile, and whose father, Imanuentius, he had

slain. If it effected nothing else, Cæsar's invasion at least relieved the weaker British tribes from the domination of the Catuvellauni.

It was during the depression of the dominant tribe that Commius seems to have established his kingdom south of the Thames. When the Atrebates made their boundary dyke from St. George's Hill to the river, it is clear they must have been in a condition to hold their own against their encroaching neighbours. But before half a century had passed, the tide of conquest was flowing in its old channel, and we find the Catuvellauni driving the successor of Mandubratius from Essex, and the descendants of Commius from the southern bank of the Thames. Everything seemed to intimate that they were about to found a great monarchy in Britain, when the Roman eagles again made their appearance, and the petty fortunes of an obscure British tribe yielded before a mightier destiny.

The campaign of Aulus Plautius, though in its results, perhaps, the most important that has taken place in Britain, has seldom engaged the attention of our historians. For our knowledge of its incidents we must chiefly rely on Dion Cassius. "One Bericus," we are told, induced Claudius to undertake the enterprise; and it has been conjectured that this Bericus was the "Verica, son of Commius," whose name appears on coins that are occasionally picked up in Surrey. If such be the case, Bericus must have been an aged man when he fled to Claudius. Plautius was the general selected to conduct the expedition, and a great force was brought together in Gaul to invade the island. But when the troops were assembled for embarkation, they declared that Britain lay beyond the limits of the known world, and refused to proceed. Narcissus, the Emperor's favourite freedman, was sent from Rome to pacify them, and on his arrival was grossly insulted by the soldiery. With the caprice, however, which sometimes seizes on large bodies of men, they at the same time declared their readiness to follow their general, embarked on board the vessels, and sailed for Britain.

This expedition sailed in the year 43, and Caractacus was captured in the year 50. As to these dates there can be no doubt. But Tacitus tells us (Ann. XII. 36) that Ca-

ractacus was captured "in the ninth year after the war began in Britain." It is probable that the troops had assembled, and all friendly relations between Britain and the Continent had ceased some time in the year 42, and that Tacitus considered the war to have commenced in that year, though this hypothesis will not account for the words "in Britain." The mutiny of the soldiers may have delayed the expedition till after winter, and it probably sailed early in the following spring. From incidental notices that occur in Tacitus, it would seem that four legions were engaged in the early operations of the war, namely, the 2nd, the 9th, the 14th, and the 20th. They came with their auxiliaries (Agric. 10) and their cavalry, so that the force which Plautius led into Britain could not be much less than 50,000 men. He had under him, in subordinate commands, Vespasian, his brother Flavius Sabinus, a man of almost equal merit, and a veteran officer named Cneius Osidius Geta. The fleet, no doubt, sailed from Boulogne, from which we know that Claudius sailed a few months later. Boulogne was the terminus of the celebrated highway which, half a century before, Agrippa had carried across Gaul, and this circumstance alone would be sufficient to establish it as the "Portus Britannicus," *i. e.* as the principal means of communication with the island. Having in mind, probably, Cæsar's disappointment at Dover, Plautius divided his force into three bodies, to prevent the mischiefs which might result from a check, if all passed over together. There can be little doubt that the three points to which the fleet directed its course were the three little ports on the Kentish coast, which we know the Romans chiefly used in their journeys to the Continent, namely, Hythe, Dover, and Richborough. The first and last of these are now silted up, but Dover still maintains its place as one of our chief ports of embarkation for the Continent. The Romans met with no opposition on their landing. Britain had been often threatened since the days of Cæsar, but never attacked. Augustus, it is well known, entertained thoughts of invading it, and Caligula assembled an army for the purpose, but the Britons received damage from neither. When, therefore, they heard that the army of Plautius had refused to obey its officers, they seem to have considered the danger as past, and to have discontinued their preparations for

defence. When the storm at last burst upon them, the petty chiefs of Kent appear to have sought refuge in their woods and marshes, and Plautius had to penetrate deeply into the country before he could find the opponents he was in search of. The following is Dion's account of his movements :—

“Plautius had much trouble in searching for them; but when at last he found them—they were not independent, but subject to different kings—he defeated first Karatakos and afterwards Togodumnos, the sons of Kunobelinos, who himself was dead. When they took to flight, he won over by agreement a certain portion of the Bodounoi, whom they that are called the Kataouellanoi had under their dominion; and from thence, having left a garrison behind them, they advanced further. When they had come to a certain river, which the barbarians did not think the Romans could pass without a bridge, and on that account were encamped on the opposite bank somewhat carelessly, he sends forward the Keltoi, whose custom it is to swim, with their arms, even over the most rapid rivers; and they having thus fallen on their opponents unexpectedly, though they hit none of the men, and only wounded the horses that drew the chariots, yet as these were thus thrown into confusion, the riders could no longer be sure of their safety. He sent over also Flavius Vespasianus, the same who afterwards obtained the supreme power, and his brother Sabinus, who served under him as lieutenant, and so they also, having somewhere passed the river, slew many of the barbarians, who were not expecting them. The rest, however, did not fly; but on the following day, having again come to an engagement, they contended on almost equal terms, till Cneius Osidius Geta, after running the risk of being captured, so thoroughly defeated them that he obtained triumphal honours, though he had never been Consul. The Britons having withdrawn themselves thence to the river Thames where it empties itself into the ocean, and at flow of tide forms a lake, and having easily passed it, as being well acquainted with such parts as were firm and easy of passage, the Romans followed them, but on this occasion failed in their object. The Keltoi, however, having again swum over, and certain others having passed over by a bridge a little higher up, engaged them on several sides at once, and cut off many of them, but

following the rest heedlessly, they fell into difficult marshes, and lost many of their men. On this account, therefore, and because the Britons did not give in, even though Togodumnos had perished, but the rather conspired together to revenge him, Plautius became alarmed and advanced no further. But his present acquisitions he made secure with a guard, and sent for Claudius, for so it was ordered him if any particular difficulty arose, and great provision had been made for the expedition, of other things as well as of elephants. When the news arrived, Claudius . . . crossing over into Britain, joined the army that was awaiting him on the Thames, and having taken the command, passed over it, and coming to blows with the barbarians, who were concentrated to oppose his advance, he conquered them in a battle, and took Kamoulodunum, the royal residence of Kunobelinos. Afterwards he brought many over, some by agreement, others by force, &c., and taking from them their arms, he placed them under Plautius, and ordered him to bring the remainder under subjection. He himself hurried to Rome, having first sent news of his victory by the hands of his sons-in-law, Magnus and Silanus."

Camden supposes that the term Bodounoi, or Boduni, to give the Latin equivalent, was another name for the people called Dobuni, and he endeavours to show etymologically that the two phrases, Boduni and Dobuni, have the same signification. Other antiquaries consider the phrase Boduni, which only occurs in this passage of Dion, to be a clerical blunder for Dobuni; and I confess I think their view of the subject to be the more reasonable one. In either case the same people are meant, and the general direction of the Roman march is clearly indicated. Where the two battles took place which were fought before the Romans reached the Dobuni we do not know. The Britons seem to have abandoned Kent without a struggle; but we may conjecture that they would not yield up the district of the Atrebates without a battle, and that they would risk a second to save the countless herds of cattle which must have been pasturing along the upper Thames, in the country of the Dobuni. The Romans, on leaving Silchester, may have marched over the Marlborough Downs towards Cirencester—under the names of these Roman stations I wish to indicate the British towns they supplanted—and on the chalk hills leading down into

the valley, Togodumnus may have met them. After his defeat, the Dobuni were not unwilling to exchange the yoke of the Catuvellauni for that of the Romans, and entered into an alliance with Plautius. The Roman general was 160 miles distant from his ships, and the advantages he derived from making the rich country round Cirencester a new base of operations are sufficiently obvious. From Cirencester he seems to have marched in search of his enemy down the valley of the Thames, and probably along the Icknield Way. This British trackway would lead him to Wallingford; and here, I believe, was fought the great battle of the campaign.

After losing the districts inhabited by the Atrebatas and the Dobuni, the British princes would naturally do their utmost to save from invasion the land which gave rise to their family, and which must have constituted the main element of their power. The country of the Catuvellauni lay, as it were, astride on the woodlands which stretch north of the Thames within the Chiltern. Its three principal thoroughfares were those known in later times as the Watling Street, the Akeman Street, and the Icknield Way. The Watling Street ran from the fords over the Severn near Wroxeter to the fords over the Lea at Stratford, and connected western Britain with the country of the Trinobantes, our modern Essex. Akeman Street came from Bath, and, passing into the London basin by the gap at Tring, joined the Watling Street at Verulam. The Icknield Way came from Suffolk, and ran along the chalk hills of the Chiltern across the other two trackways, coasting the vales of Buckingham and Aylesbury, which were, no doubt, the richest portions of the district. It seems to have crossed the river at Wallingford, and to have run into the vale of White Horse, for a road in that neighbourhood is expressly called the *Icenhilde Wæg* in a charter of the tenth century. For more than a thousand years the ford at Wallingford was recognised as the chief pass on the river. It was at this place that the Conqueror crossed the Thames, and following the Icknield Way to Tring turned his steps thence to St. Albans (Verulam), and so descended upon his prey—London. At this pass, barring access to the rich country in their rear, the Britons took their stand. The fords in front of them were probably fortified, for it is said that when Shillingford Bridge was built beams and piles were taken from the bed of the river.

With guards to watch these fords, the Britons might not unreasonably consider themselves secure.

The daring act of the auxiliaries in swimming the river must first have shown Caractacus—for he, no doubt, was the British commander—how much he had miscalculated. In the confusion that followed, Vespasian seems to have forced his way over the ford at Wallingford. Here a passage had no doubt been left to accommodate the traffic that passed along the Icknield Way, though the fords at Shillingford and Moulsoford may have been rendered altogether impassable. The Romans made good their passage of the Thames; but the Britons did not fly, and how desperate was the next day's engagement appears from the account which Dion has handed down to us. The Britons withdrew their shattered forces along the same route that was followed by William a thousand years afterwards. They were too disheartened to make an attempt to save Verulam, but continued their retreat till they had crossed the Lea and placed the Essex marshes between them and their pursuers.

I have relied for these results chiefly on critical inference. But they are so obvious that they have been partially adopted, though not critically worked out, by other antiquaries; for instance, by Gough (Gough's "Camden," i. 30), and by Sir Richard C. Hoare. (Vide Intr. to Gir. Cambr.) I think, however, there is something like authority for the sketch I have given, though it may require some little introduction to lay the authority on which I rely clearly before the reader.

Welsh legends, as handed down to us in the Triads, altogether ignore the conquests of Plautius. He disappears amid the glory which encircles the name of Cæsar, and to the latter alone is attributed the Roman conquest of Britain. This tendency to melt into one the two invasions of Britain arose, I believe, from the loose, confused, and what may be even termed the blundered statements which are met with in the classical writers. Orosius never mentions the name of Plautius; and though he refers to the expedition of Claudius, it is done in such a way that the reader might suppose he went to Britain merely to repress some casual disturbances in the island. When Polyænus tells us that Cæsar employed elephants to force his way over the Thames, every critical reader *feels* there must be some mistake; and when we find that Claudius did actually employ elephants in his advance

upon Colchester, we cannot help suspecting that Polyænus has assigned to the first invasion an event which really took place in the second. Again, when Orosius states that Cæsar sailed to Britain in early spring (*primo vere*), we see at once there is a blunder. We know that Cæsar sailed on his first expedition in the autumn, and on his second in the height of summer; but as we have reason to believe that Plautius did really sail *primo vere*, we may reasonably conclude that the careless compiler somewhere found the statement that "the British expedition" sailed *primo vere*, and concluded that Cæsar's expedition was referred to.

Alfred translated Orosius, and it is curious to see how he deals with the statements of his author. He abridges, enlarges and alters them at pleasure, not under the guidance of any critical discrimination, but merely in the exercise of that freedom which the usage of the time allowed to a translator. It is well he took this view of his duty, for it enables us to form some estimate of the knowledge he had acquired on the various subjects he deals with. The following is his account of the Conquest of Britain:—

"After that he (Cæsar) had conquered them (the Galli), he went to the island Bryttanie and fought with the Brits, and was put to flight in the land that is called Kentland. Soon afterwards he fought with the Brits again in Kentland, and they were put to flight. Their third fight was nigh the river that is called Temese, nigh the ford which is called Wellinga Ford. After that fight there submitted to him the king and burgh-men that were in Cyrncester, and afterwards all that were in the island."

Cæsar we know never approached either Wallingford or Cirencester, and Orosius makes not the slightest reference either to the one or to the other. I can only account for their appearance in Alfred's work on the supposition that he found them mentioned in some Welsh chronicle, or in some Welsh compilation like that of Nennius. The Welsh writer he was copying may have confounded the events of the second invasion with those of the first, and so led Cæsar along a route which was really traversed a century later by Aulus Plautius. The fact that Alfred makes the battle of Wallingford precede instead of follow the capture of Cirencester need not disturb us. The entry in the Welsh chronicle was probably much in the following form: "Anno—Caer Ceren taken, Fight at

Wallingford," some Welsh name, of course, taking the place of Wallingford. Alfred, or the Welsh compiler he was copying, would naturally suppose that the surrender of the fortress was a consequence of the battle, and hence the blunder.

We are now brought face to face with the question which is the great difficulty that meets us in the present inquiry. The conditions of the problem we have to solve may be stated as follows. The Britons in their retreat crossed the Thames by a well-known and accustomed ford, and the Romans "a little higher up," by means of a bridge. When the Romans got entangled in the marshes, they retreated, and awaited the arrival of Claudius. Claudius joined the army "that was awaiting him on the Thames," passed over it and marched to Colchester. The puzzling question is, where were situated the ford and the bridge here referred to? My own solution of the difficulty is the following. When the Romans came down the Watling Street to the neighbourhood of London, they saw before them a wide expanse of marsh and mudbank, which twice every day assumed the character of an estuary, sufficiently large to excuse, if not to justify, the statement in Dion, that the river there emptied itself into the ocean. No dykes then retained the water within certain limits. One arm of the great wash stretched northwards, up the valley of the Lea, and the other westward down the valley of the Thames. The individual character of the rivers was lost; the Romans saw only one sheet of water before them, and they gave it the name of the river which mainly contributed to form it. When they stated that they crossed the Thames, they merely meant that they crossed the northern arm of the great lake which spread out its waters before them, and on either hand.

That such is the true interpretation of Dion's language is clear, I think, from the circumstances of the case. I am not one of those who consider the Britons of this period to have been "barbarians"; but that they were able to construct a bridge near London, over the proper Thames,—a tidal river, some 300 yards wide, with a difference of level at high and low water of nearly 20 feet,—I cannot believe. The construction of a bridge over the marshy valley of the Lea may have been within reach of their ability. The existence, also, of a ford over the proper Thames, at a place which can by any licence of language be represented as lying near the

mouth of the river, is beset with insuperable difficulties. At Higham, east of Gravesend, are the remains of a causeway that no doubt led to the ferry which we know once existed between Higham and East Tilbury, in Essex. Hasted suggests that it may have led to the ford with respect to which we are now speculating. Other antiquaries have repeated his statement without the hesitation that accompanied and qualified it. It is a sufficient answer to say, that the river in this neighbourhood is six fathoms deep at low water. The notion of there having once been a ford near London has been more widely entertained, and even by men of ability; but it appears to me to be almost as untenable as the one we have been discussing. There is no river in the world, the history of which, for the last thousand years, is so well known as that of the Thames near London. We are told that, in the reign of Henry the First there was so great a scarcity of water in the river that men waded across it westward of the Tower; and a similar dearth of water is recorded in the reign of Elizabeth. But these are exceptional cases, and are noticed by the chroniclers, just as they hand down to us accounts of the Plague, or of the Great Fire. If it be said that the condition of the river may have been very different before the embankment was constructed on the Surrey side from what it has been since, I must appeal to the authority of Cæsar. *He* knew the river in its natural state, and had within reach adequate means of acquiring knowledge on this subject. To say nothing of other refugees and deserters, he had in his camp Mandubratius, who had lived all his life in Essex, and must have been acquainted with every circumstance connected with the river. Better authority than a statement of Cæsar we can hardly look for, and he tells us distinctly that the Thames was passable on foot *only in one place*. I indulge a hope that I have advanced reasons sufficient to justify Camden's decision in this matter, and which may induce the reader to fix the place at the Coway Stakes; at any rate it is certain that it cannot be fixed in the neighbourhood of London. If neither Dion's bridge nor his ford can be located on the Thames proper, it seems to me that we are necessarily driven to place them in the neighbourhood of Stratford.

When Plautius withdrew his soldiers from the marshes they had vainly attempted to cross, he, no doubt, encamped them somewhere in the neighbourhood. I believe the place

was London. The name of London refers directly to the marshes, though I cannot here enter into a philological argument to prove the fact. At London the Roman general was able both to watch his enemy and to secure the conquests he had made, while his ships could supply him with all the necessaries he required. When, in the autumn of the year 43, he drew the lines of circumvallation round his camp, I believe he founded the present metropolis of Britain.

The notion entertained by some antiquaries that a British town preceded the Roman camp, has no foundation to rest upon, and is inconsistent with all we know of the early geography of this part of Britain. Such town could not have belonged to the Trinobantes, for it lay beyond their natural limits, nor to the settled district of the Catuvellauni, for then Cæsar's statement that the Thames divided their country from the maritime states, "about 80 miles from the sea," would be grossly inaccurate. But if we suppose that an uninhabited marsh-land reached from the Lea to the Brent, we can assign a plausible reason for the construction of the work called the Grimesditch, and Cæsar's language will have all the accuracy that is usually characteristic of it.

THE ANTIQUITIES OF SOUTH JUTLAND OR SLESWICK.

By J. J. A. WORSAAE, Hon. F.S.A., Director of the Museum of Northern Antiquities at Copenhagen. Translated, with the concurrence of the Author, by
Ch. C. AUGUST GOSCH, Attaché to the Danish Legation.

VI B. THE SECOND DIVISION OF THE LATE IRON AGE (FROM ABOUT 700 TO 1000 A.D.).—The conclusion of the Iron age and of heathenism, which coincides with the earliest reliable written information on the history of the North, is the heroic age of the North, particularly of Norway and Denmark. Through different stages of progress in civilisation, by contact with other nations, by trade, shipping, and development of the country's own resources, which had early brought them great wealth and splendour without weakening their strength, the inhabitants of the North had been trained for great undertakings. Internal discord in foreign countries opened a way for conquests and the planting of great colonies, whereby they infused new blood in the degenerated races, at the same time, in spite of the strong influence of the Christian civilisation by which they were there surrounded, preserving for a long while their national characteristics and abilities (for instance, their remarkable skill in ship-building), their habits and customs, and even their own fashion with regard to dress and arms, and their Runic alphabet, which was peculiar to the North, where it had supplanted the earliest Runes at the beginning of the period of which we speak.

Investigations of graves both in the northern countries themselves and in the colonies planted by their inhabitants in other countries, prove that different modes of burial still obtained, at any rate at the beginning of this period. In some places the bodies were burnt according to ancient custom, and the remains deposited either in low tumuli of earth or stones, or in small stone cists, but rarely in regular barrows; in other places they were buried whole, and in that case they were deposited in large barrows, with arms, ornaments, some-

times even with whole ships or horses, with riding and driving harness, in order that the buried warrior might, as one of the Sagas says, "do as he liked, and either ride or drive to Valhal." The Islandic historian, Snorro Sturlesön, states that cremation ceased in Denmark earlier than in Norway and Sweden; and the experience of archæologists confirm his assertion. Nor is it improbable that this circumstance may be connected with the influence of Christianity and Christian mode of burial, which made themselves felt in Denmark earlier than farther north. There are also some noticeable differences between the northern kingdoms with regard to the objects deposited in the graves. Remains of ships, for instance, have several times been met with in Norway and Sweden, but not hitherto in ancient Danish districts, excepting perhaps Skaane; whilst bones of horses and remains of harness are much oftener found in graves in Denmark. The graves from the last time of heathendom are, besides, far more frequent and of more varied appearance in Norway and Sweden, and contain proportionally a greater quantity of iron arms, as well as of the ornaments, draughtsmen, dies, and other objects characteristic of this period,—facts which are



Brooch found in the Dannevirke.
Scale, half orig. size.



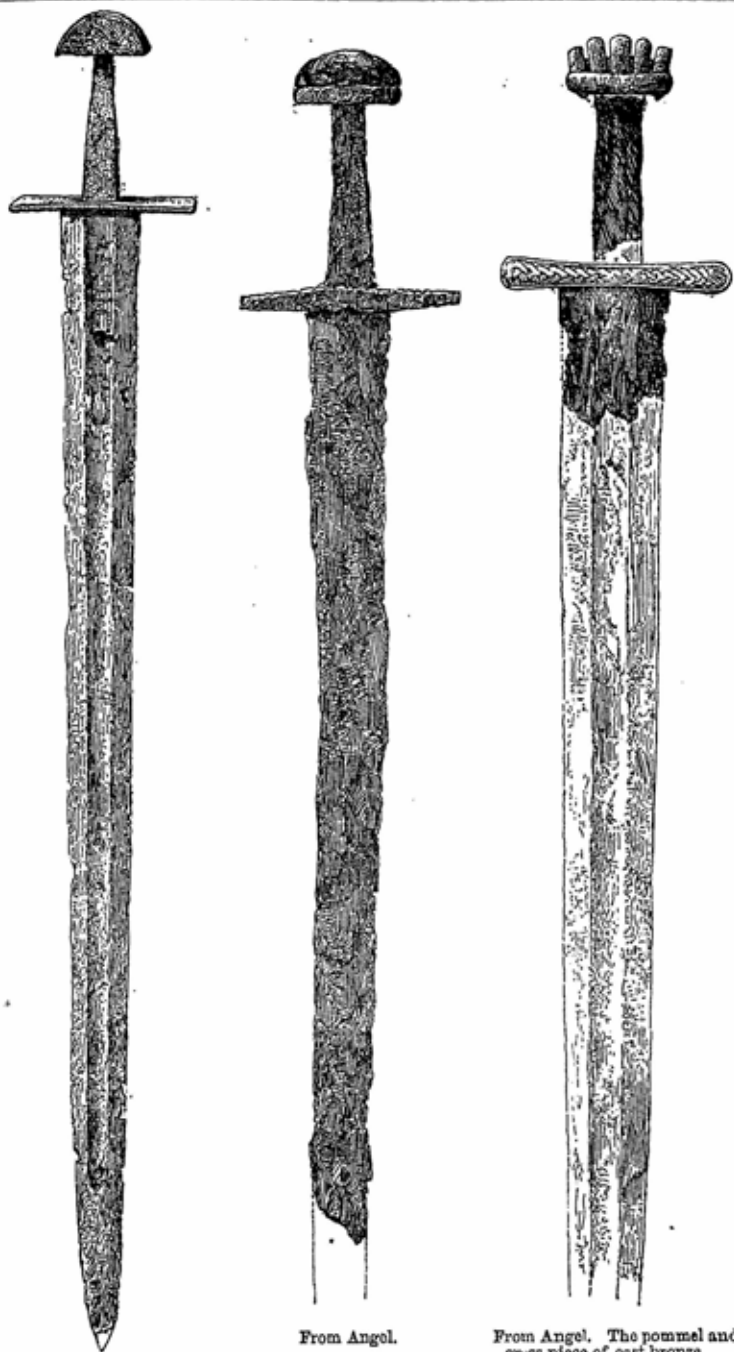
Pendant ornament of a belt, overlaid with silver,
found in the Dannevirke. Scale,
two-thirds orig. size.



only in part to be explained by the longer continuance of heathenism on the Scandinavian peninsula, particularly in

VIII.—ANTIQUITIES OF SOUTH JUTLAND.

(Late Iron Age : Second Division.)



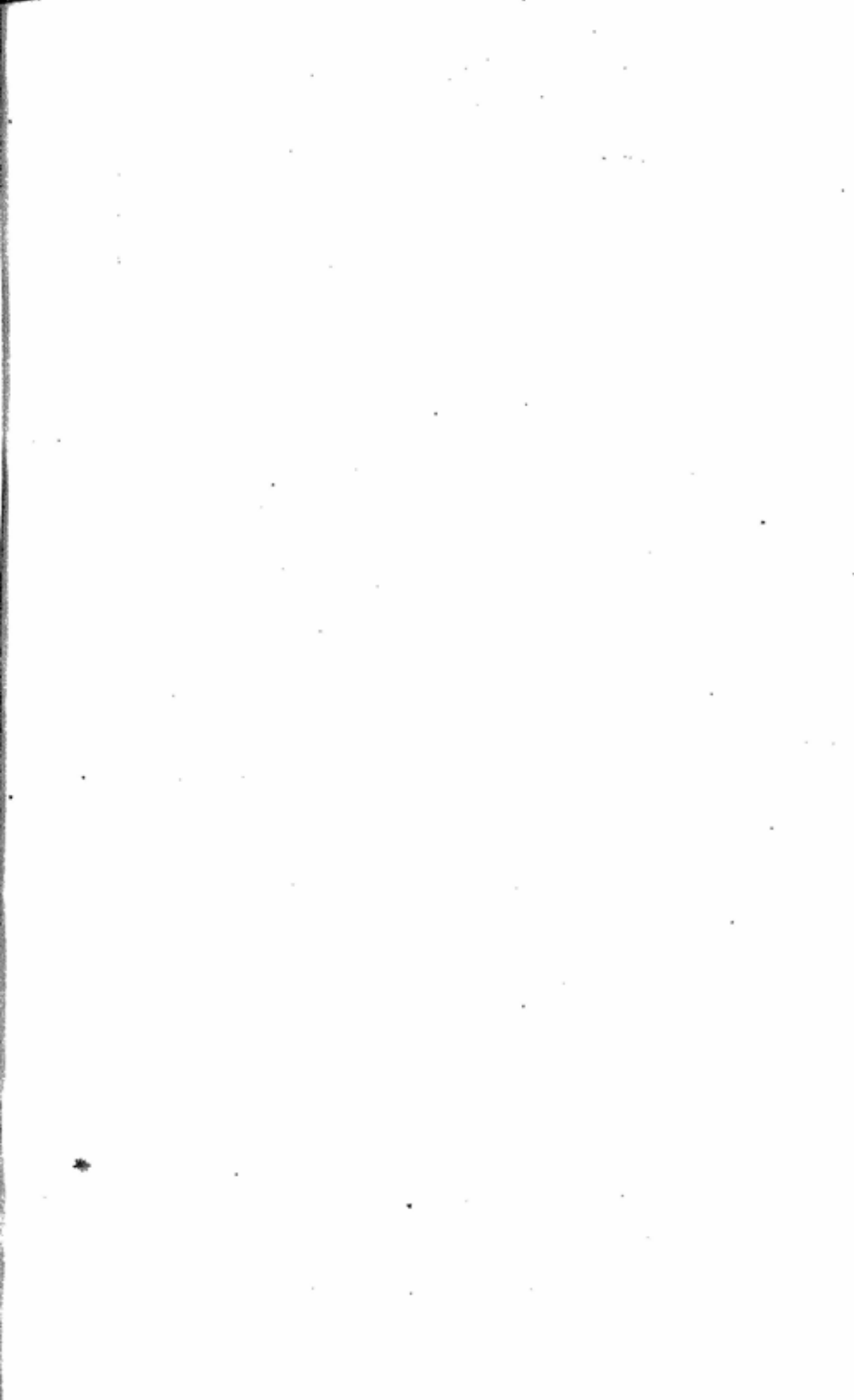
From Eckernförde.

From Angel.

From Angel. The pommel and cross piece of cast bronze.

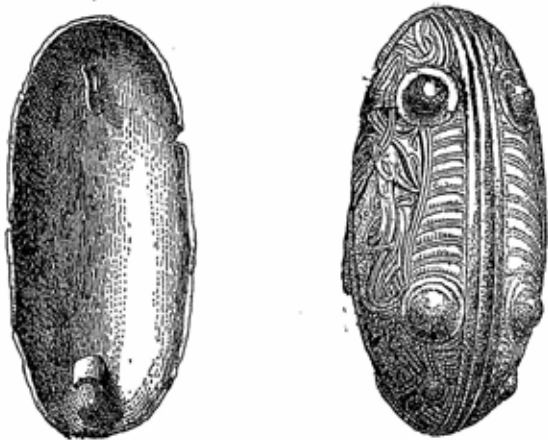
Viking swords, of iron.
Scale, one-fifth original size.



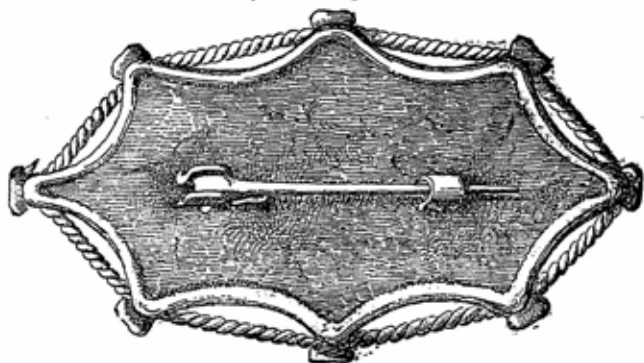


X.—ANTIQUITIES OF SOUTH JUTLAND.

(Late Iron Age: Second Division.)



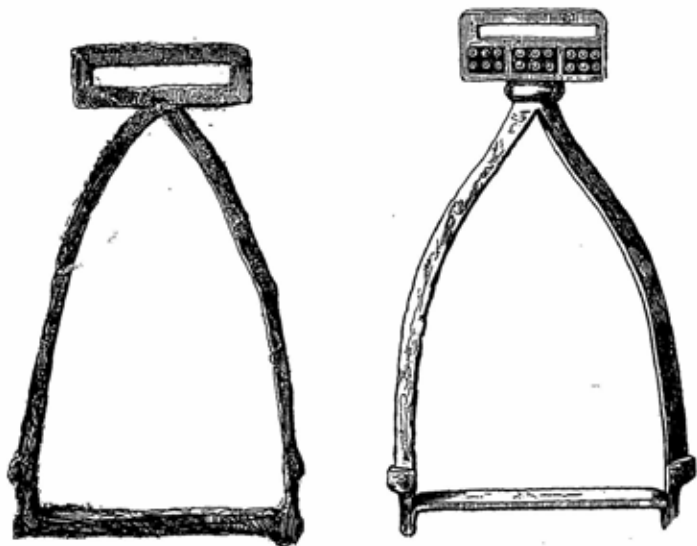
Brooch, of gilt bronze, from Frøsløve, near Flensborg.
Scale, two-thirds original size.



Silver brooch, from a peat bog near Oxenvad.
Original size.

Sweden. In the antiquities themselves, however, the greatest uniformity is observable. The swords exhibit the same peculiar hilts, often with a triangular pommel, a distinct cross-piece below the grip, and often ornamented with precious metals; the horse-ornaments are likewise of the same shape, and the buckles exhibit the same peculiar trefoil or cup-shape, with fantastic interlaced ornaments representing an ulterior semi-barbarous development of the fashion and style of the preceding period.

Antiquities of all these peculiar kinds have been met with in South Jutland. Specimens of "Viking swords" have been found near Eckernförde, in Angel, and in Föhr (fig. 1-3); and of the characteristic cup-formed brooches several have come to light, both in tombs and elsewhere. One of those represented in the annexed figures was found in the ancient rampart of the Dannevirke, close to the south side of the town of Sleswick, together with fittings for a belt (fig. 4-5, *a*, *b*); another (fig. 6, *a*, *b*) which, as the first-named, was of bronze-gilt, was found near Flensburg in a barrow; the remarkable and



Found at Angel.

Stirrups found in South Jutland.

Found at Stolk, overlaid with silver.

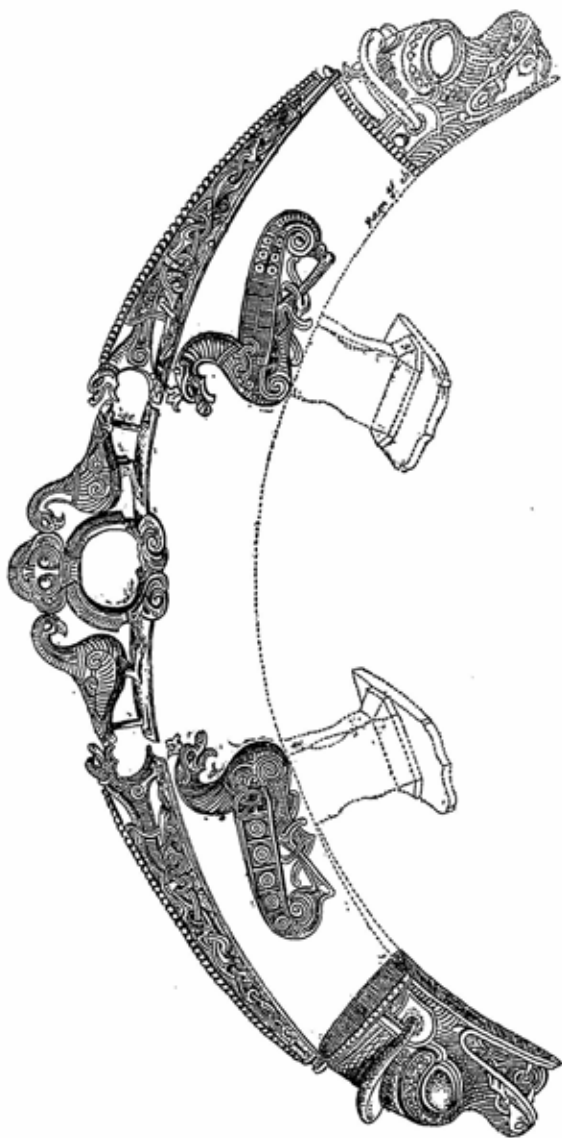
Scale, one-third orig. size.

unique silver brooch (fig. 7, *a*, *b*) was found in a peat-bog in the northern part of the province. Remains of harness and horse-ornaments, often silver-plated, such as bits, iron bridles,

and stirrups, have been found in several barrows ; and in one barrow gilt-metal fittings and ornaments were discovered belonging to a splendid driving-harness, still showing marks of wear by the reins, and strikingly like those found in other parts of Denmark and the North (fig. 8). It is probable, though not ascertained, that these remains of harness were deposited near unburnt skeletons, as was the case in similar barrows in North Jutland. History informs us that the Danes, at the time of the Vikings and their great conquests, were distinguished not only by their naval skill, but also by their horsemanship, and that their cavalry often gained them the victory ; the Jutlanders being more particularly famous for their horses—as is still the case. It is, therefore, not at all surprising that antiquities bearing witness of their predilection for horses should turn up in considerable number both in North and South Jutland. But it is equally significant that neither so-called Viking swords, nor the above-mentioned cup-formed brooches, nor remains of harness, have ever been discovered, in tombs or elsewhere, south of the Eider, in Holstein and North Germany, which already at that time was politically separated from the Danish realm by the Eider.

On the island of Föhr, near the west coast of South Jutland, which forms part of the ancient Frisian settlements, a couple of instances have occurred of large urns being discovered in the interior of barrows, containing burnt bones and ashes, with pieces of iron swords covering their mouth. In these urns and near them other iron objects were found, such as shield-bosses, spear-heads, chapes of lance-shafts, brooches, etc., and in one of them a couple of steels for striking fire had been deposited, as is often the case in heathen tombs in England, Germany, and other countries, probably in accordance with a superstition existing long after the introduction of Christianity, to the effect that such steels afford excellent protection against hurtful magic influence. It would, however, be premature, from the occurrence of these urns covered with swords, to infer that the mode of burial there was another than in other parts of South Jutland, as it has not been decided yet whether they do not belong to an earlier period, when such urns were used to a not inconsiderable extent all over the peninsula (see p. x.). At any rate, distinct proofs of Scandinavian influence on these western islands are afforded by the dis-

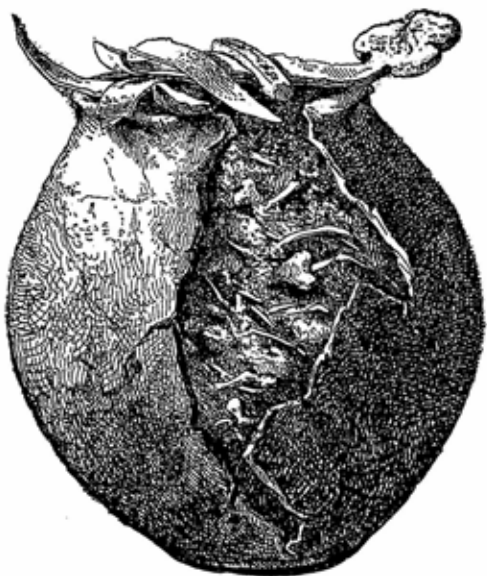
XI.—ANTIQUITIES OF SOUTH JUTLAND.
(Late Iron Age: Second Division.)



Driving-saddle, from Als, with gilt ornaments.
Scale, half original size.



covery of Viking swords on Föhr, and of certain remarkable stone monuments on the island of Amrom, which strongly recall similar monuments found on the island of Bornholm,



Clay urn with burnt bones, and a broken iron sword, from Föhr.

in the Baltic, and in different parts of Norway and Sweden, for instance in Skaane and in Bleking, provinces which now belong to Sweden, but which, originally, were parts of Denmark. In a valley called Skalnasdal, on the island of Amrom, a barrow,⁹ with a ring of stones at its foot, appeared some time ago, when violent gales had blown away the quicksand which formerly had covered it. This barrow was found to contain urns with burnt bones and ashes, an iron knife, glass beads and bronze buckles, and near it monuments constructed of small stones arranged in circles, squares, and triangles. As several such monuments are still said to be hidden under the quicksand, it is not improbable that this valley may contain also some of the so-called "Danebrogships," monuments of a similar description, but larger, forming oblongs, representing, as it were, the shape

⁹ It is a curious fact, that in Amrom, where stones are rare, several barrows are formed of shells.

of a ship's deck. Such ship-monuments existed formerly—twenty in number—near Gjenner Bay, on the east coast of South Jutland, but have now quite disappeared in that place; and it is not till we come farther north that we still find vestiges of some, viz., on Hjarnö, a small island in Horsensfjord in North Jutland. They are more frequent in Sweden and Norway. The annexed illustrations represent the monuments in the Skalnasdal, and some strikingly similar discovered in Bleking, on a place called Hjortehammer. In Holstein, or other parts of North Germany, such monuments are entirely unknown.

Finally, we must revert to the inscriptions in the later Runic alphabet, which came into use about 700 A.C., and is peculiar to Scandinavia and Scandinavian settlements in other countries, but they have never been found south of the Eider. Several are known from South Jutland; one on a piece of wood found at Fröslev, and five on monumental stones, of which three were found near the Danevirke, and according to the inscriptions, were placed there in memory of warriors, fallen no doubt in defence of the Danevirke and the frontier of the Danish realm. One was erected by King Sven (A.D. 985-1014), the father of Kanut the Great, and another (of which the accompanying illustrations represent the front and back) probably by one of Sven's chieftains. The inscription reads thus,—“Thurlf, Svens ‘himthige’ (mod. Danish ‘huskarld’) erected this stone after Erik his fellow, who died when the warriors sat round Hedeby, but he was a commander, a very brave warrior.”

The peculiar Danish local names ending in “by,” “lund,” “skov,” “kjær,” “holm,” “næs,” “öe,” and other endings, reach as far as the river Eider, though they are scarce in its immediate neighbourhood; and the southern boundary line of the Danish historical monuments in South Jutland, therefore, coincides very nearly with the ancient Danish frontier-ramparts—“Östervolden,” or “Gammelvolden” (from Vindeby Noer by Eckernförde to the Slie), and the “Kurgrav” and the “Danevirke” (from Selk and Hadeby-noer to Redea and the river Trene)—that, according to indisputable historical evidence, from the beginning of the ninth century—and perhaps already at a more ancient period—served as lines of defence for the Danish Jutes, who, even according to German, Anglo-Saxon, and other foreign chronicles, at

IX.—ANTIQUITIES OF SOUTH JUTLAND.

(Late Iron Age : Second Division.)

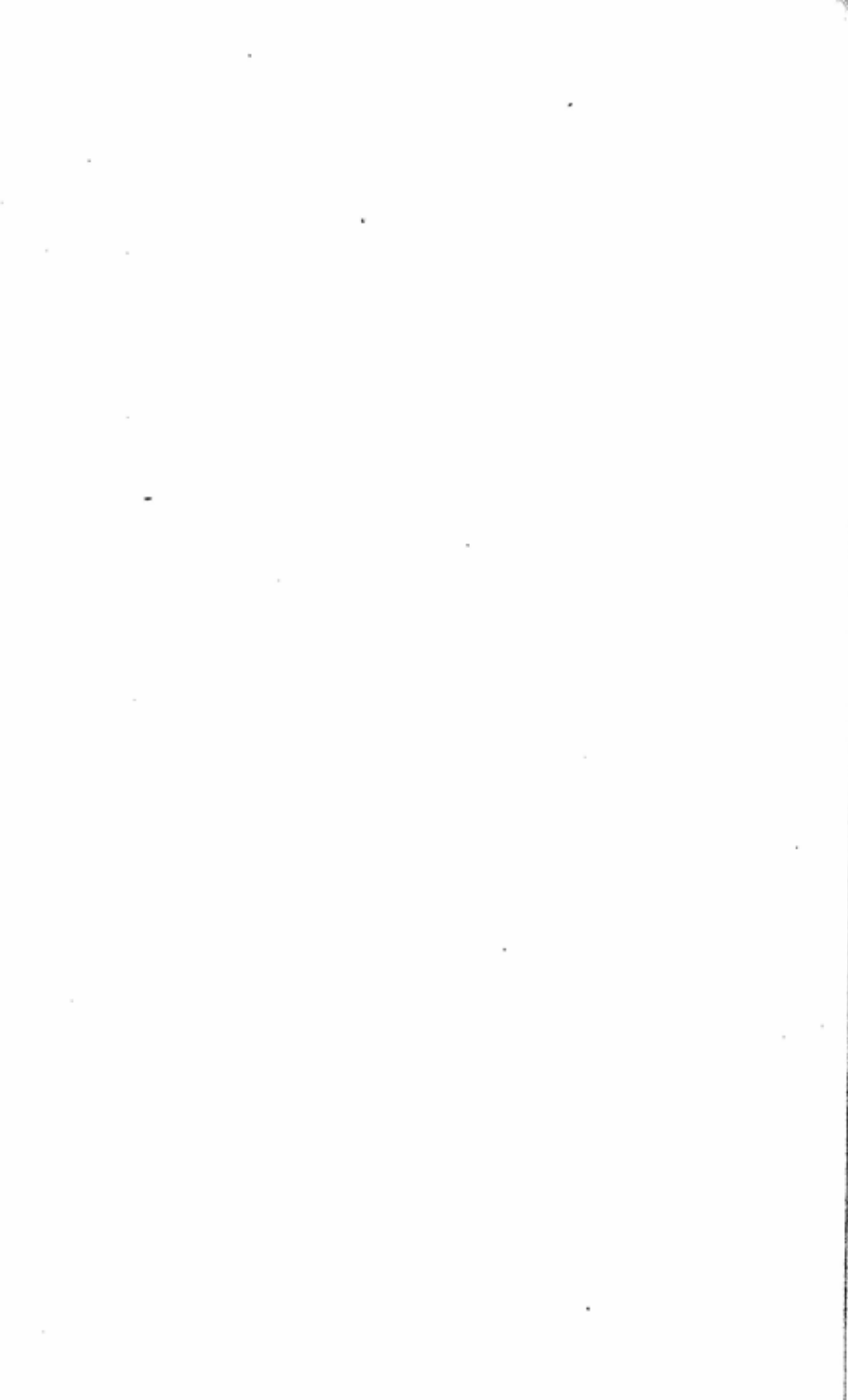
Front view.



Back view.

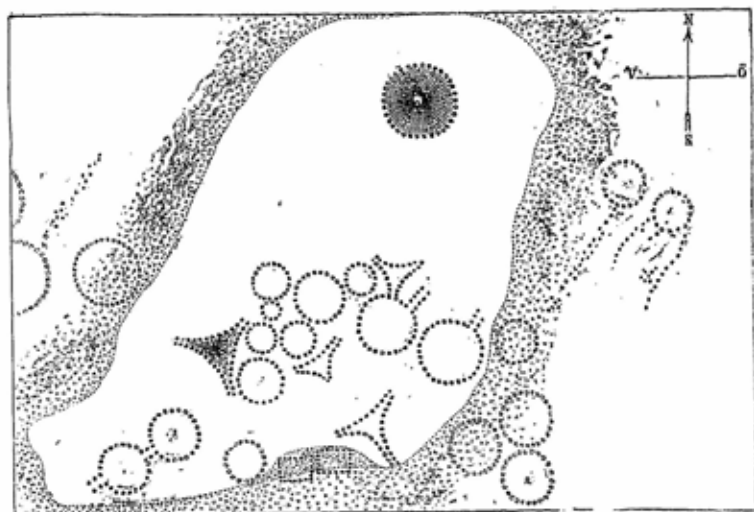


Runic Monument at Vedelspang, near the Dannevirke.
Erected by Thurif, huskari of king Sven, father of Knut the Great.

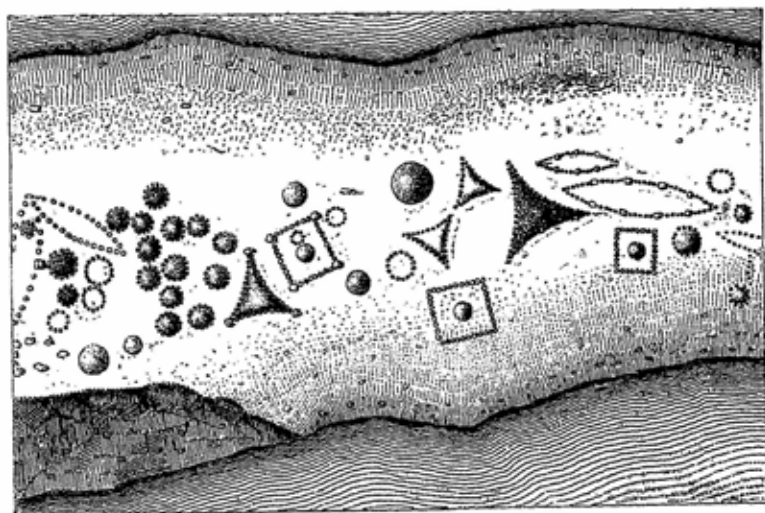


XI.—ANTIQUITIES OF SOUTH JUTLAND.

(Late Iron Age; second division.)



Stone monuments, Skalnadal, Island of Amrom.



Stone monuments, Hjortehammar in Blekinge.

that time inhabited the country as far as the *Slie*.¹ A few Danish local names occur, as already stated, south of this line, as well as barrows with Runic monumental stones—relics from ancient fights in defence of the *Danevirke*,—but all authorities agree that upon the whole, the territory between the *Eider* and the *Danevirke* was, even as late as the year 1200, a vast solitude—an uninhabited tract—to the east overgrown with dense forests—*Dänischwold*—in the middle an open heath, towards the west a low-lying, watery, marshy plain,—all of which was left uninhabited on purpose, in order that an enemy on crossing the *Eider* and approaching the *Danevirke* should not find food and shelter there.

Although the Danes succeeded in maintaining their independence and preserving their ancient frontier, even from the ancient period of which we speak, till the melancholy year of 1864, Germanism, following the wake of Christianity, nevertheless made its way in a peaceable manner through the *Danevirke*. It was from Germany that Denmark was first Christianised, and the first Danish church was built on the so-called "*Holm*," in the important frontier city *Hedeby* or *Sleswick*, just inside the *Danevirke*, where the Danish kings often resided, and where many native and foreign merchants were collected for the sake of the commerce which was carried on with the whole of Scandinavia and many foreign nations, particularly Saxons, Vendes, Russians, and Arabs.² German bishops, priests, and monks continued to pour into Jutland and thence to the islands, to Sweden and to *Viken* in Norway, and for a long time they had it all their own way as missionaries and preachers, until at length a considerable religious influence made itself felt proceeding from the British islands, and particularly from the northern part of England, where the Danish element was very strong, whereby a bar was erected against the German influence. Nevertheless, this continued very powerful in Jutland, particularly in the southern part. When South Jutland, a

¹ Thus Engelhard (at the beginning of the ninth century) states that in crossing the river *Ægidora* you come into the country of the Northmen. Ottar states in this report of his journeys to Alfred the Great that the town of *Hedeby* belongs to the Danes; and Adam of Bremen says expressly that the river *Eider*, since 811, formed the frontier be-

tween Nordalbingia and Denmark, in virtue of the peace between Charlemagne and King Heming.

² The connection of the Scandinavian countries with the East was very active; and in many places also in South Jutland great quantities of Arab coin, silver in bars, plaited gold and silver rings, &c., have been found.

couple of centuries later, was erected into a separate duchy by the Danish kings, in order to facilitate the defence of the Danevirke, this measure unfortunately entailed unforeseen consequences, destructive in the highest degree to the Danish nationality of the duchy, and favoured its partial Germanisation, which commenced by the colonisation of the hitherto uncultivated tract between the Danevirke and the Eider by German settlers in the fourteenth century.

If, in conclusion, we once more fix our attention principally on the last period of the pre-historic time of Denmark, this at least is beyond all controversy, that the occurrence of Danish antiquities—as the Viking swords, the peculiar ornaments (brooches), the remains of horse equipments, the peculiar stone monuments, the Runic inscriptions, as well as Danish local names,—ceases abruptly north of the Eider; and the moment we cross that river, everything indicates that we set foot on the soil of entirely different nationalities. And even if we extend our view through three or four centuries more, we find that, apart from the ancient Frisian settlements on the west coast, and the colonisation of the waste frontier tracts that took place principally in the fourteenth century, there is no vestige whatever of any ancient German population in South Jutland. Antiquities, linguistic monuments, and chronicles, all completely agree that from the most ancient times, until the first centuries after the introduction of Christianity into Denmark, the present South Jutland or Sleswick, as far as the Eider, has (perhaps not even with exception of the ancient Frisian population) in all and every respect shared the same development in civilisation as the other parts of ancient Denmark; and that, without any doubt whatsoever, any and every German element which may now be found in Sleswick (apart from the Frisians), has only been introduced during the last four or five centuries.

ADDRESS DELIVERED TO THE SECTION OF "PRIMÆVAL ANTIQUITIES" AT THE LONDON MEETING OF THE ARCHAEOLOGICAL INSTITUTE, JULY, 1866.

By SIR JOHN LUBBOCK, BART., F.R.S.,
Pres. Ent. Soc., V.-P. Linn. Soc., V.-P. Ethn. Soc., &c.

THE Council of the Archaeological Institute, recognising the great progress which, during the last few years, has been made in the study of Prehistoric times, have determined, I think very wisely, to found a separate section for the consideration of primæval antiquities. And as they have done me the honor of nominating me to the presidency, it becomes my duty, in opening the proceedings, to say a few words on the present condition of this very interesting branch of science.

Until lately there were many who denied, and even now, perhaps, there are some who would not admit, the claims of Prehistoric Archæology to rank as a branch of science. We can never, it is thought by such persons, become wise beyond what is written; the ancient poems and histories contain all that we can ever know about old times and ancient races of men; by the study of antiquities we may often corroborate, and occasionally perhaps even correct the statements of old writers, but beyond this we can never hope to go. The ancient monuments and remains themselves may excite our interest, but they can teach us nothing. This view is as old as the time of Horace: in one of his best known odes he tells us that,—

*"Vixere fortes ante Agamemnona
Multi; sed omnes illaerymabiles
Urgentur, ignotique longâ
Nocte, carent quia vate sacro."*

If this apply to nations as well as to individuals,—if our knowledge of the past be confined to that which has been handed down to us in books,—then archæology is indeed restrained within fixed and narrow limits; it is reduced to

a mere matter of criticism, and is almost unworthy to be called a science.

My object on the present occasion is to vindicate the claims of archæology, to point out briefly the light which has, more particularly in the last few years, been thrown on ancient times; and, above all, it will be my endeavour to satisfy you that the antiquaries of the present day are no visionary enthusiasts, but that the methods of archæological investigation are as trustworthy as those of any natural science. I purposely say the methods rather than the results, because while fully persuaded that the progress recently made has been mainly due to the use of those methods which have been pursued with so much success in geology, zoology, and other kindred branches of science, and while ready to maintain that these methods must eventually guide us to the truth, I readily admit that there are many points on which further evidence is required. Nor need the antiquary be ashamed to own that it is so. Biologists differ about the Darwinian theory; until very lately the emission theory of light was maintained by some of the best authorities; Tyndall and Magnus are at issue as to whether aqueous vapour does or does not absorb heat; astronomers have recently been obliged to admit an error of more than 4,000,000 miles in their estimate of the distance between the earth and the sun; nor is there any single proposition in theology to which an universal assent would be given. Although, therefore, there are no doubt great diversities of opinion among antiquaries, archæology is in this respect only in the same condition as all other branches of knowledge.

Conceding then, frankly, that from much of what I am about to say some good archæologists would entirely dissent, I will now endeavour to bring before you some of the principal results of modern research, and especially to give you, as far as can be done in a single address, some idea of the kind of evidence on which these conclusions are based.

I must also add that I confine my observations, excepting when it is otherwise specified, to that point of Europe which lies to the north of the Alps; and that by the Primæval period I understand that which extended from the first appearance of man, down to the commencement of the Christian era.

This period may be divided into four epochs :—Firstly, the Palæolithic, or First Stone age ; secondly, the Neolithic, or Second, Stone age ; thirdly, the Bronze age ; and lastly, the Iron age. Attempts have been made with more or less success to establish subdivisions of these periods, but into these I do not now propose to enter ; even if we can do no more as yet than establish this succession, that will itself be sufficient to show that we are not entirely dependent on history.

We will commence then with the Palæolithic age. This is the most ancient period in which we have as yet any proofs of the existence of man. There is, however, a very general opinion that he did exist in much earlier times. Indeed, M. Desnoyers has already called attention to some bones from the Pliocene beds of St. Prest, which appear to show the marks of knives ; and Mr. Whincopp has in his possession one from the Crag, which certainly looks as if it had been purposely cut. These cases, however, are by no means conclusive, and as yet the implements found in the river-drift gravels are the oldest undoubted traces of man's existence ; older far than any of those in Egypt or Assyria, though belonging to a period which, from a geological point of view, is very recent.

The Palæolithic Age.

1. The antiquities referable to this period are found in beds of gravel and loam, or, as it is technically called, "loess," extending along our valleys, and reaching sometimes to a height of 200 ft. above the present water level.

2. These beds were deposited by the existing rivers, which then ran in the same directions as at present, and drained the same areas.

3. The geography of Western Europe cannot therefore have been very different at the time those gravels were deposited from what it is now.

4. The fauna of Europe at that time comprised the mammoth, the woolly-haired rhinoceros, the hippopotamus, the urus, the musk ox, etc., as well as the existing animals.

5. The climate was much colder than it is now.

6. Though we have no exact measure of time, we can at

* least satisfy ourselves that this period was one of very great antiquity.

7. Yet man already inhabited Western Europe.

8. He used rude implements of stone.

9. Which were never polished, and of which some types differ remarkably from any of those that were subsequently in use.

10. He was ignorant of pottery, and—11, of metals.

1. These beds of gravel and loam, or, as it is technically called, "loess," extend along the slopes of the valleys, and reach sometimes to a height of 200 ft. above the present water level.

2. That these beds of gravel and loess were not deposited by the sea is proved by the fact that the remains which occur in them are all those of land or fresh water, and none of marine species. That they were deposited by the existing rivers is evident, because they never contain fragments of any other rocks than those which occur in the area drained by the river itself. As then, the rivers drained the same areas as now, the geography of Western Europe cannot have been at that period very different from what it is at present.

3. The fauna, however, was very unlike what it is now, the existence of the animals above mentioned being proved by the presence and condition of their bones.

4. The greater severity of the climate is indicated by the nature of the fauna. The musk ox, the woolly-haired rhinoceros, the mammoth, the lemming, etc., are Arctic species, and the reindeer then extended to the South of France. Another argument is derived from the presence of great sandstone blocks in the gravels of some rivers, as for instance of the Somme; these, it appears, must have been transported by ice.

5. The great antiquity of the period now under discussion is evident from several considerations. The extinction of the large mammalia must have been a work of time, and neither in the earliest writings, nor in the vaguest traditions, do we find any indication of their presence in Western Europe. Still more conclusive evidence is afforded by the conditions of our valleys. The beds of gravel and loess cannot have been deposited by any sudden cataclysm, both

on account of their regularity, and also of the fact already mentioned that the materials of one river system are never mixed with those of another. To take an instance,—the gravel beds in the Somme valley are entirely formed of debris from the chalk and tertiary strata occupying that area; but within a very few miles of the head waters of the Somme comes the valley of the Oise. This valley contains remains of other older strata, none of which have found their way into the Somme valley, though they could not have failed to do so had the gravels in question been the result of any great cataclysm, or had the Somme then drained a larger area than at present. The beds in question are found in some cases 200 ft. above the present water level, and the bottom of the valley is occupied by a bed of peat which in some places is as much as 30 ft. in thickness. We have no means of making an accurate calculation, but even if we allow, as we must, a good deal for the floods which would be produced by the melting of the snow, still it is evident that for the river to excavate the lower part of its valley to a depth of more than 200 ft.,¹ and then for the formation of so thick a bed of peat, much time must have been required. If, moreover, we consider the alteration which has taken place in the climate and in the fauna; and finally, remember also that the last eighteen hundred years has produced scarcely any perceptible change,—we cannot but come to the conclusion that many, very many, centuries have elapsed since the river ran at a level so much higher than the present, and the country was occupied by a fauna so unlike that now in existence there.

6. Man's presence is proved by the discovery of stone implements. Strictly speaking, these only prove the presence of a reasoning being; but this being granted, few, if any, would doubt that the being in question was man. Human bones indeed have been found in cave deposits, which, in the opinion of the best judges, belonged to this period; and M. Boucher de Perthes considers that various bones found at Moulin Quignon are also genuine. On this point long discussions have taken place, into which I will not now enter. The question before us is, whether men

¹ Many persons find a difficulty in understanding how the river could have deposited gravel at so great a height,

forgetting that the valley was not then excavated to anything like its present depth.

existed at all, not whether they had bones. On the latter point no dispute is likely to arise, and as regards the former the works of man are as good evidence as his bones could be. Moreover, there seems to me nothing wonderful in the great scarcity of human bones. A country, where the inhabitants subsist on the produce of the chase, can never be otherwise than scantily peopled. If we admit that for each man there must be a thousand head of game existing at any one time—and this seems a moderate allowance; remembering also that most mammalia are less long-lived than men, we should naturally expect to find human remains very rare as compared with those of other animals. Among a people who burnt their dead of course this disproportion would be immensely increased. That the flint implements found in these gravels *are* implements it is unnecessary to argue. Their regularity, and the care with which they have been worked to an edge, prove that they have been *intentionally* chipped into their present forms, and are not the result of accident. That they are not forgeries we may be certain; firstly, because they have been found *in situ* by many excellent observers,—by all in fact who have looked long enough for them; and secondly, because, as the discoloration of their surface is quite superficial, and follows the existing outline, it is evidently of later origin. The forgeries, for there are forgeries, are of a dull lead color, like other freshly broken surfaces of flint. The same evidence justifies us in concluding that the implements are coeval with the beds of gravel in which they are found.

8. Without counting flakes, we shall certainly be within the mark if we estimate that three thousand flint implements of the Palæolithic age have been discovered in Northern France and Southern England. These are all of types which differ considerably from those which came subsequently into use, and they are none of them polished. We may therefore, I think, conclude that the art of polishing stone implements was as yet unknown.

9 and 10. In the same manner, I think, we may conclude that the use of metal and of pottery was then unknown, as is the case even now with many races of savages.

Although flint implements were observed in the drift gravels more than half a century ago by Mr. Frere, still his observations were forgotten until the same discovery was

again made by M. Boucher de Perthes. For our knowledge of the gravel beds in which they occur, however, we are principally indebted to Mr. Prestwich. Sir Charles Lyell has the great merit of having carefully examined the facts, and given to the antiquity of man the authority of his great name; nor must the labors of Mr. Evans be passed unnoticed. To him we owe the first comparison between the flint implements of this and those of the Neolithic period.

In what precedes, I have relied principally on the researches in the river-drift gravel-beds. Much additional information has, however, been obtained by the examination of caves. With this part of the subject the names of two of our fellow-countrymen, Dr. Falconer and Mr. Christy—who have recently, alas! been lost to us and to science—must ever remain indissolubly associated. Mr. Busk, who had been for some time engaged with Dr. Falconer in the study of the Gibraltar caves, will publish the result of the investigations which he had left in an unfinished state, and every one will admit that the materials could not be in better hands.

The researches carried on by Mr. Christy, in conjunction with M. Lartet, in the caves of the Dordogne, are of great interest. The general facts may be stated to be, that while thousands of implements made out of stone, bone, and horn, have been collected, no trace of pottery, nor any proof of the use of metals, nor even a polished stone implement, has yet been met with. The people who lived in the South of France at that period seem, in a great many respects, to have resembled the Esquimaux. Their principal food was the reindeer, though traces of the musk ox, mammoth, cave-lion, and other animals of the quaternary fauna have been met with. They were very ingenious, excellent workers in flint, but though their bone pins, &c., are beautifully polished, this is never the case with their flint weapons. The habit of allowing offal and bones to accumulate in their dwellings is indicative, probably, of a cold climate.

Perhaps, however, the most remarkable fact of all is, that although in other respects so slightly advanced in civilisation, these ancient French cavemen, like the Esquimaux, made some progress in art. M. Lartet even found in the rock-shelter at La Madelaine a fragment of mammoth tusk, on which was engraved a representation of the animal itself.

The Neolithic Age.

We now pass to the later Stone, or Neolithic, age, with reference to which the following propositions may, I think, be regarded as satisfactorily established :—

1. There was a period when polished stone axes were extensively used in Europe.

2. The objects belonging to this period do not occur in the river-drift gravel-beds.

3. Nor in association with the great extinct mammalia.

4. They were in use long before the discovery or introduction of metals.

5. The Danish shell-mounds, or kjökkenmöddings, belong to this period ;

6. As do many of the Swiss lake-dwellings ;

7. And of the tumuli or burial mounds.

8. Rude stone implements appear to have been in use longer than those more carefully worked.

9. Hand-made pottery was in use during this period.

10. In central Europe, the ox, sheep, goat, pig, and dog were already domesticated.

11. Agriculture had also commenced.

12. At least two distinct races already occupied Western Europe.

1. That there was a period when polished axes and other implements of stone were extensively used in Western Europe, is sufficiently proved by the great numbers in which these objects occur—for instance, the Dublin Museum contains more than 2000, that of Copenhagen more than 10,000, and that of Stockholm not fewer than 15,000.

2. The objects characteristic of this period do not occur in the river-drift gravels. Some of the simpler ones indeed—as, for instance, flint flakes—were used both in the Neolithic and Palæolithic periods. The polished axes, chisels, gouges, &c., however, are very distinct from the ruder implements of the Palæolithic age, and are never found in the river-drift gravels. Conversely, the Palæolithic types have never yet been met with in association with those characteristic of the later epoch.

3. Nor do the types of the Neolithic age ever occur in company with the Quaternary fauna, under circumstances which would justify us in regarding them as coeval.

4. The implements in question were in use before the introduction or discovery of metal. It is a great mistake to suppose that implements of stone were abandoned directly metal was discovered. For certain purposes, as for arrow-heads, stone would be quite as suitable as the more precious metal. Flint flakes, moreover, were so useful, and so easily obtained, that they were occasionally used even down to a very late period. Even for axes and chisels, the incontestable superiority of metal was for a while counterbalanced by its greater costliness. Captain Cook, indeed, tells us that in Tahiti the implements of stone and bone were in a very few years replaced by those of metal; a stone hatchet is at present, he says, "as rare a thing as an iron one was eight years ago, and a chisel of bone or stone is not to be seen." The rapidity with which the change from stone to metal is effected, depends on the supply of the latter. In the above case, Cook had with him abundance of metal, in exchange for which the islanders supplied his vessels with great quantities of fresh meat, vegetables, and other more questionable articles of merchandise. The introduction of metal into Europe was certainly far more gradual; stone and metal were long used side by side, and archæologists are often too hasty in referring stone implements to the Stone age. It would be easy to quote numerous instances in which implements have been, without any sufficient reason, referred to the Stone age, merely because they were formed of stone. The two Stone ages are characterised not merely by the use of stone, but by the use of stone to the exclusion of metal. I cannot therefore too strongly impress on archæologists *that many stone implements belong to the metallic period*. Why, then, it will be asked, may they not all have done so? and this question I will now endeavour to answer.

5. The Danish shell-mounds are the refuse heaps of the ancient inhabitants, round whose dwellings the bones and shells of the animals on which they fed gradually accumulated. Like a modern dustheap, these shell-mounds contain all kinds of household objects—some purposely thrown away as useless, but some also accidentally mislaid. These mounds have been examined with great care by the Danish archæologists, and especially by Professor Steenstrup. Many thousand implements of stone and bone have been obtained from them; and as on the one hand from the absence of extinct

animals, and of implements belonging to the Palæolithic age, we conclude that these shell-mounds do not belong to that period, so on the other hand, from the absence of all trace of metal, we are justified in referring them to a period when metal was unknown.

6. The same arguments apply to some of the Swiss lake-dwellings, the discovery of which we owe to Dr. Keller, and which have been so admirably studied by Desor, Morlot, Troyon, and other Swiss archæologists. A glance at the table (A) will show that, while in some of them objects of metal are very abundant, in others, which have been not less carefully or thoughtfully explored, stone implements are met with to the exclusion of metallic ones. It may occur, perhaps, to some, that the absence of metal in some of the lake-villages and its presence in others, is to be accounted for by its scarcity—that, in fact, metal will be found when the localities shall have been sufficiently searched. But a glance at the table will show that the settlements in which metal occurs are deficient in stone implements. Take the same number of objects from Wangen and Nidau, and in the one case 90 per cent. will be of metal, while in the other the whole number are of stone or bone. This cannot be accidental—the numbers are too great to admit of such a hypothesis; nor can the fact be accounted for by contemporaneous differences of civilisation, because the localities are too close together; neither is it an affair of wealth, because we find such articles as fishhooks, &c., made of metal.

7. We may also, I think, safely refer some of the tumuli or burial mounds to this period. When we find a large tumulus, the erection of which must have been extremely laborious, it is evident that it must have been erected in honour of some distinguished individual; and when his flint daggers, axes, &c., which must have been of great value, were deposited in the tomb, it is reasonable to conclude, that if he had possessed any arms of metal, they also would have been buried with him. This we know was done in subsequent periods. In burials of the Stone age the corpse was either deposited in a sitting posture, or burnt.

8. It is an error to suppose that the rudest flint implements are necessarily the oldest. The Palæolithic implements show admirable workmanship. Moreover, every flint implement is rude at first. A bronze celt is cast perfect; but a flint

is rudely blocked out in the first instance, and then if any concealed flaw comes to light, or if any ill-directed blow causes an inconvenient fracture, the unfinished implement is perhaps thrown away. Moreover, the simplest flint-flake forms a capital knife, and accordingly we find that some simple stone implements were in use long after metal had replaced the beautifully-worked axes, knives, and daggers, which must always have been of great value. The period immediately before the introduction of metal may reasonably be supposed to be that of the best stone implements, but the use of the simpler ones long lingered. Moreover, there are some reasons to believe that pierced stone axes are characteristic of the early metallic period.

9. Hand-made pottery is abundant in the shell-mounds and the lake-villages, as well as in the tumuli which appear to belong to the Stone age. No evidence that the potter's wheel was in use has yet been discovered.

10. The dog is the only domestic animal found in the shell-mounds; but remains of the ox, sheep, goat, and pig appear in the lake-villages. There is some doubt about the horse; and the barn-door fowl, as well as the cat, was unknown.

11. The presence of corn-crushers, as well as of carbonised wheat, barley, and flax, in the Swiss lake-dwellings, proves that agriculture was already pursued with success in Central Europe. Oats, rye, and hemp were unknown.

12. At least two forms of skull, one long and one round, are found in the tumuli which appear to belong to this period. Until now, however, we have not a single human skull from the Danish shell-mounds, nor from any Swiss lake-dwelling, which can be referred with confidence to this period.

The Bronze Age.

1. It is admitted by all that there was a period when bronze was extensively used for arms and implements. The great number of such objects which are preserved in our museums places this beyond a doubt.

2. It would, however, be a mistake to suppose that stone implements were entirely abandoned. Arrow heads and flakes of flint are found abundantly in some of the Swiss lake-villages which contain bronze. In these cases, indeed,

it may be argued, that the same site had been occupied both before and after the introduction of bronze. The evidence derived from the examination of tumuli is, however, not open to the same objection, and in them objects of bronze and of stone are very frequently found together. Thus it appears from the investigations recorded by Mr. Bateman, that in three-fourths of the tumuli containing bronze (29 out of 37), stone objects also occurred.

3. Some of the bronze axes appear to be mere copies of the stone ones. No such simple axes of iron, however, are known.

4. Many of the Swiss lake-villages belong to this period. The table (B) furnished to me by Dr. Keller, places this beyond a doubt, and gives a good idea of the objects in use during the bronze age, and the state of civilisation during this period.

5. The presence of metal, though the principal, is by no means the only point which distinguishes the Bronze age villages from those of the Stone period. If we compare Moosseedorf, as a type of the last, with Nidau, as the best representative of the former, we shall find that, while bones of wild animals preponderate in the one, those of tame ones are most numerous in the latter. The vegetable remains point also to the same conclusion. Even if we knew nothing about the want of metal in the older lake-villages, we should still, says Professor Heer, be compelled from botanical considerations to admit their greater antiquity.

Moreover, so far as they have been examined, the piles themselves tell the same tale. Those of the Bronze age settlements were evidently cut with metal, those of the earlier villages with stone, or at any rate with some blunt instruments.

6. The pottery was much better than that of the earlier period. A great deal of it was still hand-made, but some is said to show marks of the potter's wheel.

7. Gold, amber, and glass were used for ornamental purposes.

8. Silver, zinc, and lead, on the contrary, were apparently unknown.

9. The same appears to have been the case with iron.

10. Coins have never been found with bronze arms. To this rule I only know of three apparent exceptions. Not a

single coin has been met with in any of the Swiss lake-villages of this period.

11. The dress of this period no doubt consisted in great part of skins. Tissues of flax have been found, however, in some of the lake-villages, and a suit of woollen material, consisting of a cloak, a shirt, two shawls, a pair of leggings, and two caps were found in a Danish tumulus evidently belonging to the Bronze age, as it contained a sword, a brooch, a knife, an awl, a pair of tweezers, and a large stud, all of bronze, besides a small button of tin, a javelin-head of flint, a bone comb, and a bark box.

We have independent evidence of the same fact in the presence of spindlewhorls.

12. The ornamentation on the arms, implements, and pottery, is peculiar. It consists of geometrical patterns; straight lines, circles, triangles, zigzags, &c. Animals and vegetables are very rarely attempted, and never with much success.

13. Another peculiarity of the bronze arms lies in the small size of the handles. The same observation applies to the bracelets, &c. They could not be used by the present inhabitants of Northern Europe.

14. No traces of writing have been met with in any finds of the Bronze age. There is not an inscription on any of the arms or pottery found in the Swiss lake-villages, and I only know one instance of a bronze cutting instrument with letters on it.

15. The very existence of bronze proves that of a considerable and extensive commerce, inasmuch as we only know two countries, namely Cornwall, and the Island of Banca, whence tin could have been obtained in large quantities. There are, indeed, but few places where it occurs at all. The same fact is proved by the great, not to say complete, similarity of the arms from very different parts of Europe.

16. Finally, as copper must have been in use before bronze, and as arms and implements of that metal are almost unknown in Western Europe, it is reasonable to conclude that the knowledge of bronze was introduced into, not discovered in, Europe.

Two distinguished archæologists have recently advocated very different views as to the race by whom these bronze

weapons were made, or at least used. Mr. Wright attributes them to the Romans; Professor Nilsson to the Phœnicians. The first of these theories I believe to be utterly untenable. In addition to the facts already brought forward, there are two which by themselves are I think almost sufficient to disprove the hypothesis. Firstly, the word *ferrum* was used as a synonym for a sword, which would scarcely have been the case if another metal had been used for the purpose. Secondly, the Romans never entered Denmark: it is doubtful whether they ever landed in Ireland. Yet while three hundred and fifty bronze swords have been found in Denmark, and a very large number in Ireland also,² I have only been able to hear of a single bronze sword in Italy. The national museums at Florence, Rome, and Naples do not appear to contain a single specimen of the typical, leaf-shaped bronze swords, which are, comparatively speaking, so common in the North. That the bronze swords should have been supposed to be introduced into Denmark by a people who never came there, and from a country in which they are almost unknown, is, I think, a most untenable hypothesis. It is no doubt true that a few cases are on record in which bronze weapons are said to have been, and very likely were, found in association with Roman remains. Mr. Wright has pointed out three, one of which at least I cannot admit. Under any circumstances, however, we must expect to meet with some such cases. The only wonder to my mind is that there are so few of them.

As regards Professor Nilsson's theory, according to which the Bronze age objects are of Phœnician origin, I will only say, that the Phœnicians in historical times were well acquainted with iron, and that their favourite ornaments were of a different character from those of the Bronze age. If, then, Professor Nilsson is correct, they must belong to an earlier period in Phœnician history than that with which we are partially familiar.

It would be natural that I should pass on to the Iron age, but the transition period between the two is illustrated by a discovery so remarkable that I cannot pass it over altogether in silence. M. Ramsauer, for many years head

² The Museum at Dublin contains 282 swords and daggers: unluckily the number of swords is not stated separately.

of the salt mines at Hallstadt, near Salzburg in Austria, has opened not less than 980 graves apparently belonging to an ancient colony of miners. The results are described and the objects figured in an album, of which Mr. Evans and I have recently procured a copy from M. Ramsauer himself. We hope soon to make this remarkable find known in a more satisfactory manner. For the moment, I will only extract the main facts which are necessary to my present arguments.

That the period to which these graves belonged was that of the transition between the Bronze and Iron ages, is evident, both because we find cutting instruments of iron as well as of bronze, and also because both are of somewhat unusual, and we may almost say of intermediate, types. The same is the case with the ornamentation. Animals are frequently represented, but are very poorly executed, while the geometrical patterns are well done. Coins are entirely absent. That the passage was from bronze to iron, and not from iron to bronze, is clear; because here, as elsewhere, while iron instruments with bronze handles are common, there is not a single case of a bronze blade with an iron handle. This shows that when both metals were used for weapons, the iron was preferred. Another interesting point in connection with this, I find, is the almost entire absence of silver, lead, and zinc. It has indeed been stated that these metals are altogether absent, but Mr. Evans finds that silver is mentioned by M. Ramsauer once, or perhaps twice, and zinc also once. This is the more remarkable inasmuch as the presence, not only of the tin itself, but also of battu amber and ivory, indicate the existence of an extensive commerce.

The conclusions, then, as regards the Bronze age, to which I have endeavoured to bring you are these:—

1. There was a period when bronze was extensively used for arms and implements.
2. Stone, however, was also in use, especially for certain purposes, as, for instance, for arrow-heads, and in the form of flakes for cutting.
3. Some of the bronze axes appear to be mere copies of the earlier stone ones.
4. Many of the Swiss lake-villages and of the tumuli belong to this period.

5. This is shown, not merely by the presence of metal, but also by other arguments.

6. The pottery of the Bronze age is better than that of the earlier period.

7. Gold, amber, and glass were used for ornamental purposes.

8. Silver, lead, and zinc appear to have been unknown.

9. This was also the case with iron.

10. Coins were not in use.

11. Skins were probably worn, but tissues of flax and wool have also been discovered.

12. The ornamentation of the period is characteristic, and consists of geometrical markings.

13. The handles of the arms, the bracelets, &c., indicate a small race.

14. Writing appears to have been unknown ;

15. Yet there was a very considerable commerce.

16. It is more than probable that the knowledge of bronze was introduced into, not discovered in, Europe.

The Iron Age.

The Iron age is the period when this metal was first used for weapons and cutting instruments. During this epoch we emerge into the broad, and in many respects delusive, glare of history.

No one of course will deny that arms of iron were in use by our ancestors at the time of the Roman invasion. Mr. Crawford indeed considers that they were more ancient than those of bronze, while Mr. Wright maintains that the bronze weapons belong to the Roman period.

I have already attempted to show, from the frequent occurrence of iron blades with bronze handles, and the entire absence of the reverse, that iron must have succeeded and replaced bronze. Other arguments might be adduced ; but it will be sufficient to state broadly that which I think no experienced archæologist will deny, namely, that the other objects which accompany bronze weapons are much more archaic than those which are found with weapons of iron.

That the bronze swords and daggers were not used by the Romans in Cæsar's times, I have already attempted to prove. That they were not used at that period by the northern races

is distinctly stated in history. I will, however, endeavour to make this also evident on purely archæological grounds. We have several important finds of this period, among which I will specially call your attention to the lake-village of La Tene, in the Lake of Neuchâtel. At this place no flint implements (excepting flakes) are met with. Only fifteen objects of bronze have been found, and only one of them was an axe. Moreover, this was pierced for a handle, and belonged therefore to a form rarely if ever occurring in finds of the Bronze age. On the other hand, the objects of iron are numerous, and comprise fifty swords, twenty-three lances, and five axes. Coins have also been met with at this station, while they are entirely absent in those of the Bronze age.

The other find of the Iron age to which I will now refer, is that of Nydam, recently described at length by M. Engelhardt, in his excellent work on "Denmark in the Early Iron Age." At this place have been found an immense number of the most diverse objects—clothes, brooches, tweezers, beads, helmets, shields, coats of mail, buckles, harness, boats, rakes, brooms, mallets, bows, vessels of wood and pottery, 80 knives, 30 axes, 40 awls, 160 arrow-heads, 180 swords, and nearly 600 lances. All these weapons were of iron, though bronze was freely used for ornaments. That these two finds belonged to the Roman period, is clearly proved by the existence of numerous coins, belonging to the first two centuries after Christ, although not one has occurred in any of the Bronze age lake-villages, or in the great find at Hallstadt.

It is quite clear, therefore, that neither bronze nor stone weapons were in use in Northern Europe at the commencement of our era.

A closer examination would much strengthen this conclusion. For instance, at Thorsbjerg alone there are seven inscriptions, either in Runes or Roman characters, while, as I have already stated, letters are quite unknown, with one exception, on any object of the Bronze age, or in the great transition find at Hallstadt. Again, the significance of the absence of silver in the Hallstadt find is greatly increased when we see that in the true Iron age, as in the Nydam and other similar finds, silver was used to ornament shield-bosses, shield-rims, sandals, brooches, breast-plates, sword-hilts, sword-sheaths, girdles, harness, &c. ; and was used for clasps,

pendants, boxes, and tweezers, while in one case a helmet was made of this comparatively rare material.

The pottery also shows much improvement, the forms of the weapons are quite different, and the character of the ornamentation is very unlike, and much more advanced than, that of the Bronze age. Moreover, the bronze used in the Iron age differs from that of the Bronze age, in that it frequently contains lead and zinc in considerable quantities. These metals have never been found in the bronzes of the true Bronze age, nor even in those of Hallstadt.

These finds clearly show that the inhabitants of Northern and Western Europe were by no means such mere savages as we have been apt to suppose. As far as our own ancestors are concerned, this is rendered even more evident by the discoveries of those ancient British coins which have been so well described and figured by Mr. John Evans.³

In conclusion, I would venture to suggest that the Government should be urged to appoint a Royal Conservator of National Antiquities. We cannot put Stonehenge or the Wansdyke into a museum—all the more reason why we should watch over them where they are; and even if the destruction of our ancient monuments should, under any circumstances, become necessary, careful drawings ought first to be made, and their removal ought to take place under proper superintendence. We are apt to blame the Eastern peasants who use the ancient buildings as stone quarries, but we forget that even in our own country, Avebury, the most magnificent of Druidical remains, was almost destroyed for the sake of a few pounds; while recently the Jockey Club has mutilated the remaining portion of the Devil's Dyke on Newmarket Heath, in order to make a bank for the exclusion of scouts at trial races. In this case, also, the saving, if any, must have been very small; and I am sure that no society of English gentlemen would have committed such an act of wanton barbarism, if they had given the subject a moment's consideration.

But I have already occupied your attention longer perhaps than I ought—much longer, at any rate, than I at first intended. I have endeavoured, as well as I was able, to bring before you some of the principal conclusions to which

³ "The Coins of the Ancient Britons."

we have been led by the study of Primæval antiquities, purposely avoiding all reference to history, because I have been particularly anxious to satisfy you that in archæology we can arrive at definite and satisfactory conclusions, on independent grounds, without any assistance from history, and consequently as regards times before writing was invented, and therefore before written history had commenced.

I have endeavoured to select only those arguments which rest on well-authenticated facts. For my own part, however, I care less about the facts than the method. For an infant science, as for a child, it is of small importance to make rapid strides at first : and I care comparatively little how far you accept our facts or adopt our results, if only you are convinced that our method is one which will eventually lead us to sure conclusions, and therefore that the science of Pre-historic Archæology rests undoubtedly on a sound and solid foundation.

TABLE B.

	Nidan.	Merigen.	Estavayer.	Cortailod.	Corcelettes.	Auvernier.	Other places.	TOTAL.
Celts & fragments...	23	7	6	13	1	6	11	67
Swords .....	...	...	...	...	...	...	4	4
Hammers	4	...	1	...	...	...	...	5
Knives and frag- } ments	102	19	14	22	19	8	9	193
Hair Pins	611	53	239	183	237	22	22	1367
Small Rings	496	28	115	195	202	14	3	1053
Ear-rings.....	238	42	36	116	...	3	5	440
Bracelets and frag- } ments	55	14	16	21	26	11	2	145
Fish-hooks	109	12	43	71	9	2	1	247
Awls	95	3	49	98	17	...	...	262
Spiral Wires .....	...	...	46	50	5	...	...	101
Lance Heads	27	7	..	4	2	5	2	47
Arrow Heads.....	...	...	5	1	...	...	...	6
Buttons .....	...	1	28	10	10	...	...	49
Needles	20	2	3	4	1	...	...	30
Various ornaments..	15	5	7	18	3	1	...	49
Saws .....	...	...	3	...	...	...	...	3
Daggers .....	...	...	...	...	...	...	2	2
Sickles.....	18	12	1	2	7	1	4	45
Double-pointed } Pins	75	...	...	...	...	...	...	75
Small Bracelets	20	...	...	11	...	...	...	31
Sundries.....	96	3	5	16	...	...	4	124
TOTAL	2,004	208	617	835	539	73	69	4345

TABLE C.

GRAVES WITH BODIES BURIED IN THE ORDINARY MANNER.											
ANTIQUITIES.											
No. of the Grave.	Gold Ornaments.	BRONZE.			IRON.		AMBER.	GLASS.	POTTERY.	STONE.	
		Ornaments.	Vessels.	Doubtful.	Weapons.	Weapons.						Other Objects.
527	6	1471	3	35	18	161	33	165	38	334	57
GRAVES WITH BURNT CORPSES.											
ANTIQUITIES.											
No. of the Graves.	Gold Ornaments.	BRONZE.			IRON.		AMBER.	GLASS.	POTTERY.	Different Objects.	
		Ornaments.	Vessels.	Doubtful.	Weapons.	Weapons.						Other Objects.
453	58	1744	179	54	91	349	41	105	35	908	100
980	64	3215	182	89	109	510	74	270	73	1242	
Totals											5985

HALLSTADT.

NOTICE OF A SEPULCHRAL SLAB DISCOVERED ON THE SITE OF
THE HOSPITAL OF THE HOLY INNOCENTS, NEAR LINCOLN.¹

By the Rev. EDWARD TROLLOPE, M.A., F.S.A., Prebendary of Lincoln.

ABOUT a mile to the south of Lincoln, adjacent to the course of the old city wall, as it existed in 1610, and to the Sincil Dyke, the fosse of the fortifications in this quarter, a quadrangular enclosure of about seven acres is still to be seen at the north-western angle of the great South Common; this fenced ground is known as the Malandery Field or Closes. The spot is not shown in the Map of "Lindum Colonia," taken by Stukeley, in 1722,² reproduced in the Transactions of the Meeting of the Institute at Lincoln in 1848. That Map extends only to the Sincil Dyke, before-mentioned, and to the position of the Great Bar Gate, at the southern termination of the High Street.

Here stood the Hospital of the Holy Innocents, called the Maladerie,³ Malandery, or Leprosery, "*Domus Leprosorum*," erected outside the city as a refuge for loathsome and pitiable sufferers, who were regarded with abhorrence and excluded from the resorts of their fellow-men. Evidences of the former existence of extensive buildings may be seen in the broken surface of the Malandery Field, and even the site of the church of the Hospital has been pointed out in local maps; of the original buildings, the remains of which were destroyed by fire about the middle of the last century, not one stone is left upon another. The history of the Institution, with a plan, and an ample account of the dreadful disease that extensively prevailed in this and in most European countries from the tenth to the close of the sixteenth century, has

¹ A short notice of this sepulchral slab was given in the twenty-second Report of the Archit. Soc. Dioc. of Lincoln, p. xi.

² Stukeley, *Itin. Cur.*, cent. i., p. 88.

³ See Ducange, *v. Maladeria*, *noso-*
comium leprosum, &c., and Roquefort,

v. Maladrerie, and *Ladrerie*. It is stated that in the times of Louis VIII., about 1225, there were not less than 2000 leper-houses in France. Thomas of Walsingham gives the number of 1900 Spitals for lepers in Christendom.

been given by Dr. Cookson in a volume of Memoirs communicated to the Lincolnshire Topographical Society.⁴

It is stated that the establishment of a House for Lepers had been one of the good works of Bishop Remigius (1067—1092), who removed the see to Lincoln; it was probably the same that was endowed by Henry I., according to documents printed in the *Monasticon*.⁵

In excavations for the new railway from Lincoln to Honington, in 1865, a coffin-lid, or sepulchral slab of unusual design was brought to light in the Malandery Field. Beneath were remains of a grave formed of rude rubble work, on a spot that had apparently been occupied by the choir of the church attached to the Hospital, known to have stood where the singular memorial here figured was found. The slab, supposed to be of Ketton stone, measures 6 ft. 11 in. in length, 2 ft. 2 in. in width at the head, and 17 in. at the feet; the thickness is 6 in. Its chief ornament is a cross carved in relief; the stem is enriched by bold foliated crockets; the head of the cross has diagonal limbs; these, as well as those of the head are decorated, in like fashion as the stem, with foliated finials or knops of foliage. The remarkable features of this cross, however, are three apertures, accurately shown in the wood-cut; through the upper one, of circular form, in the centre of the head of the cross, is seen the head of apparently an aged female, with a veil or kerchief falling in narrow folds on either side; lower down, in the position where the conjoined hands in the customary gesture of prayer would be found, they appear as if seen through a narrow opening of pointed oval form; near the lower end of the slab are seen the feet, through a circular aperture; the pointed toes seem to indicate close-fitting shoes or stockings. Around the margin of the slab, on three of its sides, is the inscription, forming a rhyming *quatrain*, as follows:—

+ : WS : KY PAR ICI PASSET :
 PVR LE ALME : IVEYT : PRIET :
 KY FV LE FEM HOW DE ROVCEBY :
 KY DEV : DE LE ALME : HEN AY MERCY.

⁴ A Selection of Papers relative to the County of Lincoln. Lincoln: W. and B. Brooke, 1843. See, at p. 29, a memoir on the Hospital called La Malardri at Lincoln: with some account of Ancient

Customs touching Leprosy. By. W. D. Cookson, M.D.

⁵ Dugdale, *Mon. Ang.*, vol. vi. p. 627; Tanner's *Notitia*.

Or, in the French of modern times :—

Vous, qui par ici passez,
 Pour l'ame Iveyt priez,
 Qui fut la femme Hue de Rouceby,
 Que Dieu de l'ame en ait mercy.

The date of the slab seems to be about 1350. The name was doubtless taken from Rauceby, a parish near Sleaford, Lincolnshire.⁶ Several persons of the name occur in local history. In an inquisition regarding possessions of the Knights Hospitalers in Lincolnshire, in 1185, we find, at Risby, Andrew Avetorp, who held lands of the gift of Walter de Raucebi; William de Rauceby, of Holdingham, obtained manumission of Bishop Oliver Sutton, in 1287; and John de Rauceby was prebendary of Carlton-cum-Thurlby, from 1379—88, when he met with a violent death on Lincoln Heath. No notice has, however, been found of Hugh de Rauceby, nor can it be ascertained in what capacity Ivetta, his relict, may have lived and died at the Maladerie, within the church of which her body seems to have been interred.

It may here deserve notice that lepers were so far excluded from the pale of society, that they were forbidden to enter churches, and were left without any provision for the burial of their dead. Some of the larger houses sought to alleviate this dreadful condition by building chapels; here, however, they found an obstacle in the parochial clergy, by whom infringements of their rights were apprehended. In 1197 the matter was taken into consideration by the third Lateran Council, and the conduct of the clergy was censured by Alexander III., who authorised any community of leper-folk, who could maintain a priest, to build a chapel and have a cemetery of their own. They were also exempted from payment of tithes.

The costly character of the slab would lead us to infer that Ivetta de Rauceby was a person of some consideration—a benefactress, possibly, to the institution, in which, doubt-

⁶ A cross-slab, dated 1385, the name—De Rauceby—unfortunately in part defaced, was found about 1854 in the south aisle of Rauceby church, and is supposed to commemorate the builder of that part of the fabric. This slab has been figured,

Arch. Journ. vol. xi, p. 189. See several examples of head-stones with crosses found used as "wallers" in the church of that place.—Ibid., vol. x, pp. 63, 162; see also a notice of a mural painting there, vol. xi, p. 68.



Sepulchral Slab found in the Malandery Field, Lincoln.

Date about 1350.



less, she may have sought a refuge as afflicted with that dreadful disease from which no class of society was exempt. The tale of Syr Amis and Syr Amiloun supplies a picture of the "mesel" expelled from his home by his wife, and confined in a wayside hut near his own gate. The Scottish poet, Henrysoun, also, about 1460, in his "Testament of Creseide," gives a picture of Leper-life in the "Spitel at the Towne's ende," similar to the Malandery at the southern gate of Lincoln. We learn from these ancient poems that even the lady of high degree, afflicted with that dire disorder, became an outcast, and was driven to seek a doleful refuge in the House of Lazars.

In regard to the occurrence of the memorial under consideration, whether we regard the relict of Hugh de Rouceby as having been herself afflicted with disease, or as a person who may have been interred in the church of the Malandery on account of her charity and benevolence towards its suffering inmates, it may be remarked that there were "*consoroeres*" within its walls. In an Inquisition in the reign of Edward III., it was found by the jurors that certain women dwelled in the Hospital of the Holy Innocents, "*se habentes tanquam sorores—quæ non intraverunt per viam rectam, sed per viam pecuniæ,*" namely, by a bribe given to the *Custos*.⁷

It has been observed that the slab recently disinterred at the Malandery in railway operations is of unusual character. Several memorials, however, of the fourteenth and fifteenth centuries might be enumerated, in which there is a capricious and somewhat grotesque combination of the sepulchral cross with portions of the effigy, the latter being either in low relief upon the face of the slab, or shown through apertures in various parts of it, as in the curious example under consideration. It seems to have been a local fashion, mostly adopted in Lincolnshire and adjacent counties.⁸ Although the expression of the face is almost invariably in sepulchral effigies that of life, it deserves consideration whether the

⁷ Dugd. Mon. Ang., vol. vi. p. 627, Caley's edit. It is somewhat singular that occasionally a recluse should have been formally closed up in a leper-house. By 2 Pat. Edw. III., 15, it seems to have been granted that "*Eliz. de Elme posset esse reclusa infra Hosp. SS. Innoc. extra*

Linc."

⁸ Mr. Boutell remarks that monuments of this description are chiefly to be found in Lincolnshire, Yorkshire, Derbyshire, Nottinghamshire, Rutland, and some parts of Wales. Christ. Monuments, sect. 11, p. 119.

intention of the sculptor may not have been to suggest that portions of the corpse enclosed in the coffin were actually visible through the openings in its lid.⁹ Gough gives amongst other examples the strangely combined memorial of Joan, wife of William Disney, at Norton Disney, Lincolnshire; the lady's bust and arms, with hands conjoined, are there shown, surrounded by escutcheons of arms and accessory decorations; the lower part of the slab is charged with a cross, and through a trefoiled aperture at its base the feet of the deceased lady appear resting on an animal, probably a dog. Other examples are figured by Mr. Cutts in his *Manual of Sepulchral Slabs and Crosses*; ¹ a few sepulchral brasses also occur that partake of a similar peculiarity in their design, as, for instance, one in the Chapel of Merton College, date about 1310; in a memorial of a priest at Chinnor, Oxfordshire, the tonsured head is introduced in a beautifully floriated cross.²

It only remains, in conclusion, to offer a few remarks on the somewhat unusual name, IVEYT, occurring on the memorial to which attention has been invited. It may possibly be another form of the name Judith, which is not uncommon in Anglo-Saxon and subsequent times, and which must be held in honored remembrance as that of the daughter of Charles the Bald, the consort of Ethelwulf, by whom our Alfred was instructed in the first use of letters.³ The kinswoman of the Conqueror, given in marriage to the powerful Earl of Northumberland, Waltheof, was Judith, daughter of Earl Lambert de Lens, and sister of Stephen, Earl of Albe-marle. In the *Life of Waltheof*, however, edited by Michel, in the "*Chroniques Anglo-Normandes*," from a MS. at Douai, her name has been printed both as "*Juetta*," and "*Juditha*."⁴ So likewise the late Sir Francis Palgrave, in extracts from the "*Cronica Canonicorum B. Marie Huntingdon*," preserved

⁹ In a singular cross-slab in Romsey Abbey Church, Hants, a hand appears as if emerging from the coffin on its dexter side, and holding a staff with a small drapery or *vevillum* appended to it, possibly a crosier reversed; the tomb may be the memorial of one of the abbesses of Romsey.

¹ See Plates xxxi., lxvii., lxviii. to lxxi. The head is mostly shown through a quatrefoiled aperture formed either in

the centre of the head of the cross or immediately over it.

² *Manual of Monumental Brasscs*; by the Rev. H. Haines; Part I. p. cxxxv.

³ In the Anglo-Saxon Chronicle her name is written Jeothete, or Juthytta. The *neptis* of Edward the Confessor married to Tostin is named Juthitta.

⁴ *Chron. Ang. Norm.*, tom. ii. pp. 117, 121, 123, &c. Rouen, Ed. Frère, 1836.

amongst the documents relating to the affairs of Scotland, in the Treasury of the Exchequer, has printed the name of the same lady. David, one of the sons of Malcolm King of Scots, married, as there stated, "*Matildam comitissam Hunting' neptem Willelmi regis Anglie, filiam Ivette que fuit filia Lamberti de Louns comitis.*"⁵

It must be admitted that it is difficult to account for the substitution of Ivetta for Judith. So singular a change does not appear quite satisfactory. It has been suggested, with considerable probability, that Ivetta may have been the feminine form of Ivo. In the Calendar of the Patent Rolls, p. 39, we find "*Ivetta de Veteri ponte,*" one of the two daughters and coheiresses of Robert de Vipont, who died about 1265. Ivo occurs as a name in the same family. By Dugdale, however, in his account of the Vipont family, this lady, who married Roger de Leyburn, is called *Idonea*. The question must be left to those who take interest in the investigation of personal names in the Middle Ages.⁶

In the church of Easton, Northamptonshire, there is an inscription on the south side of the chancel, that commemorates Sir Richard de Lindone, lord of the manor, who died 39 Hen. III., 1255, "*e dame Ivete sa feme.*" It is given by Bridges, *Hist. North.*, vol. ii. p. 447.

⁵ Documents, &c., preserved in the Treasury of the Exchequer, vol. i. pp. 101, 104.

⁶ *Ivett* and *Ivatt*, it may deserve to

be noticed, still occur as surnames. See *Burke's Gen. Armory*. *Ivatts* is a name in the Isle of Ely at the present time.

CONTRIBUTIONS TO THE HISTORY OF ARMOUR, ARMS, AND
MILITARY APPLIANCES IN EUROPE.

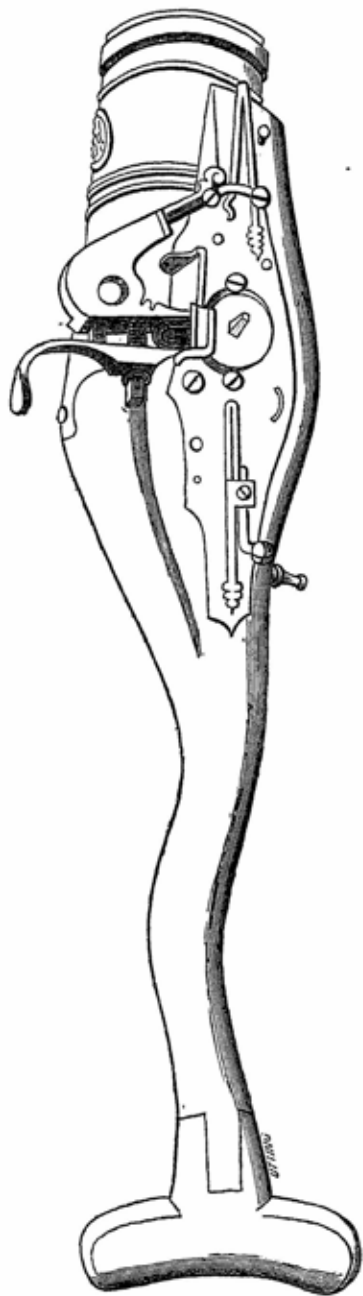
By JOHN HEWITT.

HAND-MORTAR OF THE BEGINNING OF THE SEVENTEENTH
CENTURY, FROM THE ROYAL ARTILLERY MUSEUM, WOOLWICH.

IN bringing under the notice of the Institute this very curious weapon for firing off grenades from the shoulder,—one of several examples preserved in the Royal Artillery Museum, at Woolwich, kindly lent for our examination by General Lefroy,—it may be desirable to take a glance at the rise and progress of explosive shells in our own and foreign services; not, however, including those of the present day.

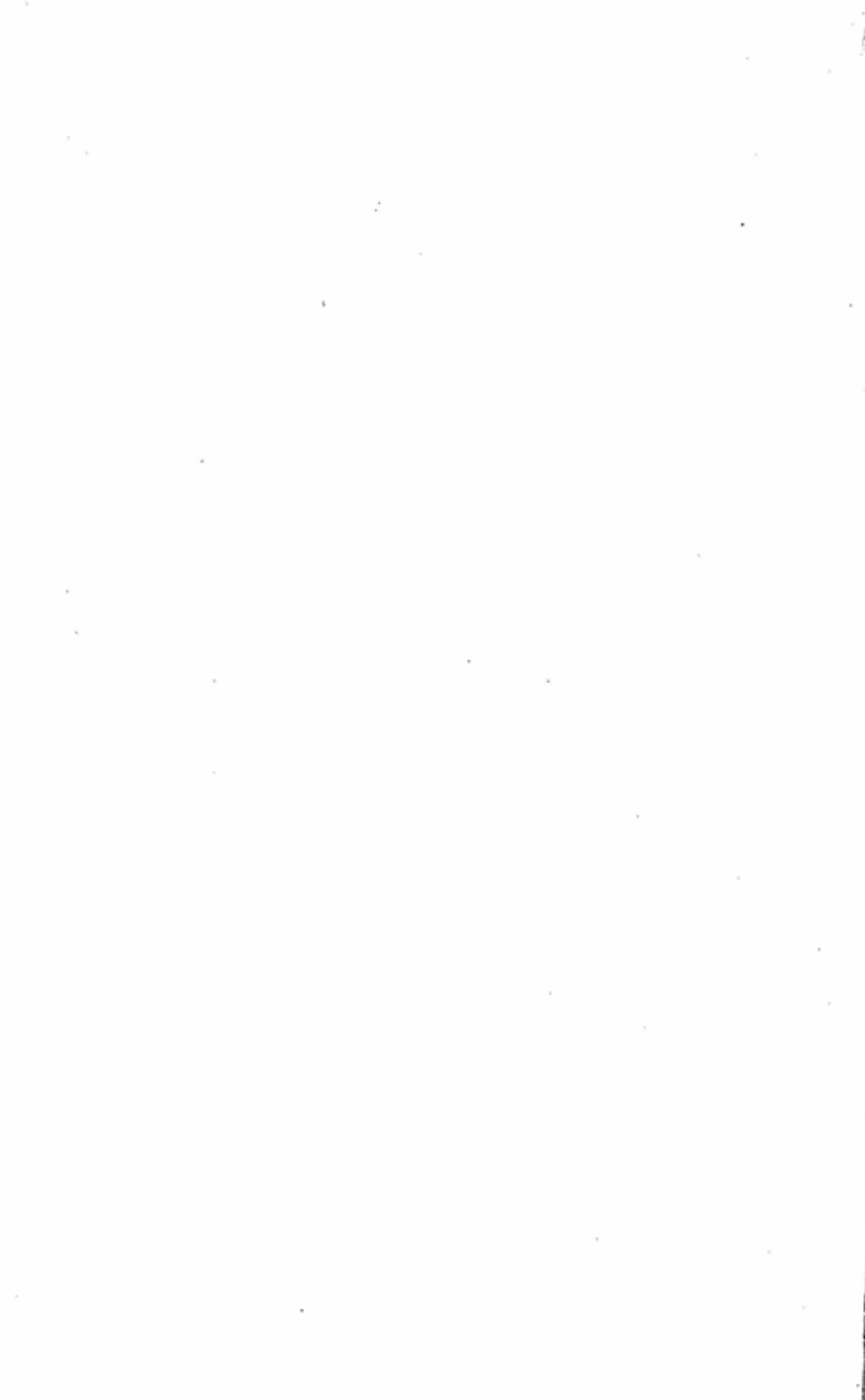
The well-known figure of a hinged shell in the work of Valturius, published in 1472, had long been accepted as the prototype of the bomb; but very competent judges of our own day have thrown doubt on this evidence, believing that the shell in question was charged with incendiary composition, and not intended to inflict injury by its fragments on bursting. Not venturing to offer an opinion on this knotty question, I shall content myself with quoting the words of Valturius as they appear in the *Libri* manuscript, lately acquired by the British Museum. The invention is there described as “*machina quæ pilæ æneæ tormentarii pulveris plenæ, cum fungi aridi fomite urentis, emittuntur.*” Though we hear nothing more of bombs till the sixteenth century, it may very well have happened that such an invention was made at the early period here noticed, and left in abeyance for a time, as we often see inventions in the military art,—and, indeed, in all arts.

In the sixteenth century the explosive shell, under the form of the Grenade, makes its appearance. In 1537, we learn from Père Daniel, who cites the memoirs of Du Bellay, that, in making preparation for resisting an attack upon



Hand-Mortar in the Royal Artillery Museum, Woolwich.

Date, early in the seventeenth century



Arles by the Emperor Charles V., that place was furnished with "lances, pots, et grenades, dont on fit faire grande quantité" (vol. i. p. 585). We must therefore, adds Daniel, fix the invention of grenades, at the latest, under the reign of Francis the First. Six years afterwards (in 1543) we have a very curious and clear account of the fabrication of explosive shells in Stow's "Annales." Under the 35th of Henry VIII. he writes:—"King Henry, minding wars with Fraunce, made great preparation and provision, as well of munitions and artillery as also of brasse ordinance, amongst which, at that time, by one Peter Baud, a French-man borne, a gunfounder or maker of great ordinance, and one other alien, called Peter van Collen, a gunsmith, both the king's feed men; who, conferring together, devised and caused to be made certain *morter pieces*, being at the mouth from eleven inches unto nineteen inches wide; for the use whereof the said Peter and Peter caused to be made certaine hollow shot of cast yron, to be stuffed with fire-worke or wild fire, whereof the *bigger sorte* for the same had screwes of yron to receive a match to carry fire kindled, that the fier-work might be set on fire, for to *break in small pieces the same hollow shot*, whereof the smallest piece hitting any man, would kill or spoyle him" (p. 584, ed. of 1631). This seems clearly the mortar and bomb, as we now understand those terms. We have here, distinctly named, the mortar-piece, of which the "bigger sorte" carried a shell upwards of a foot and a half in diameter; and the purpose of this cast-iron shell was to break into small pieces when falling among the enemy. Whether the worthy "Peter and Peter" had got hold of a copy of Valturius and modified his device to the result above described, must be left to our conjecture. I may remark that cannon founded by the above-named Peter Baude are still preserved in the Tower and Woolwich collections.

In 1562, we learn from the Memoirs of Castelnau, cited in the "Milice Française," that grenades were used at the siege of Rouen, and that the Comte de Rendan was there killed by the bursting of one (vol. i. p. 585). At the siege of Vaktendonck, in the Low Countries, in 1588, bombs appear to have been employed with great success. "Nothing," says Strada, "terrified the townsmen more than certain great hollow iron balls filled with powder and with other materials, which were

inextinguishable. They had a fuse and were cast from a mortar. Falling upon the roofs of the houses, they broke through them, and as soon as the charge ignited, they burst, spreading on all sides a flame that could with difficulty be extinguished with water" (Daniel, vol. i. p. 580). In the "Commentaries" of Sir Francis Vere we read that, at the siege of Ostend, in 1601, the defenders had "firkins of ashes, to be tumbled upon the enemy to blind them; little quadrant tenter-nails, three sticking in the ground and one upright; many great heaps of stones and brickbats, which the soldiers brought from the old church they had shot down; ropes of pitch; hoops bound about with squibs and fireworks to throw among them; *great store of hand-granadoes*; and clubs, which we called Hercules'-clubs, with heavy heads of wood, and nails driven into the squares of them" (Commentaries, p. 170).

In 1634 the French first adopted the mortar and shell, and it was from an Englishman that they obtained this powerful auxiliary. "The late king, Louis XIII.," says Blondel, in his "Art de jetter les Bombes," "caused the 'Sieur Malthus,' an English engineer, to come from Holland for this purpose;" and we have seen him, he adds, in several sieges directing the mortar batteries with great success. In the "Pratique de la Guerre" of Malthus himself, the author describes his mortar, which was 12 in. in diameter, 3 in. thick at the mouth, and three at the chamber: the bomb was $11\frac{1}{2}$ in. in diameter, its thickness an inch and a fraction: the fuse was of wood. Ward, in his "Animadversions of Warre," published in 1639, tells us:—"The last kinds of ordnance are the mortar-peece, the square murtherers, tortles, and petards." The first three of these were mortars. The mortar is also called by him Saints' Bell—"fashioned like to a mortar or Saints' Bell" (p. 113). Granadoes, he adds at a later page, are of two kinds, for mortars and for hand. "Those that are to be shotte out of a mortar-peece are to be cast in brasse for the principall service, or made of glasse or earth. There is another sort made of canvas, and that is used properly to set fire upon houses and townes" (chapt. 243).

Nathanael Nye, "Master Gunner of the City of Worcester," in his "Art of Gunnery," published in 1647, remarks that the soldiers of his day were by no means fond of hand-

ling the grenade: they were loath "to meddle with the hand-granadoes, the using of them being somewhat dangerous" (p. 75). He further apprises us that "mortars of brass and iron being wanting, they may be made, for a need, of wood and pastbord. The bore into which you put your powder must be plated with copper or latten, if it be possible." And he adds:—"There is a very honest man in the market town of Bromsgrove, named John Tilt, who can make either mortar-peeces or ordnance, with tin, wire, pastbord and glue, of excellent durance and service, if not wronged in the charge or loading of them" (p. 56).

In 1667 the Grenadier became a regular constituent of the French army: every company of the *Régiment du Roi* had four of them. In 1670 they were united into a single company: in 1672 the first thirty regiments of the line had each its company of grenadiers. The adoption of grenadiers by Louis XIV. is thus explained by Marshal Puysegur in his "Art de la Guerre,"—"The king, having formed many sieges, at first volunteers were invited for throwing the grenades. At length his majesty resolved to establish Companies for that service. These had pouches to carry the grenades and hatchets to use in attacks in the trenches and other places, for cutting down palisades, and breaking through doors" (vol. i. p. 222).

Turner, in his "Pallas Armata," 1671, says:—"The fourth kind of ordnance is the mortar, under which comprehend pot-pieces, square-murtherers, tortles, and petards. The pot-piece shoots granados, fireballs and stones" (p. 192).

In 1676, Louis XIV. formed the company of *Grenadiers à cheval*, consisting of 130 men, with their special officers. They carried, besides their pouch of grenades, sword, fusil and pistols.

Under the year 1678, Evelyn in his Memoirs tells us that, in the month of June, he visited the Camp at Hounslow Heath, and adds:—"Now were brought into service a new sort of soldiers called granadiers, who were dextrous in flinging hand granados, every one having a pouch full. They had furred caps with coped crownes like Janizaries, which made them looke very fierce; and some had long hoods hanging down behind, as we picture fools. Their clothing being likewise pybald, yellow and red" (vol. i. p. 497, ed. 1819).

From the Manuals for the Exercise of British Troops, published by royal command, we learn the armament of the grenadier from 1682 to the end of the century. In 1682 he has pouch of "grenados," match, fusil with bayonet, and hatchet. In 1690 he is provided with pouch of "granades," match, fusil with plug bayonet and sling, *cartridges*, and primer. It may be remarked that while, at this date, the grenadier and dragoon have cartridges, the musquetier still carries his charges in the old "collar of bandeliers." In 1694, St. Remy gives us a good and well-detailed print of the French grenadier's pouch, hatchet, and belt ("Mémoires d'Artillerie," pl. 88), and of his fusil with bayonet (pl. 80).

The horse-grenadier is found in England as well as in France. Grose, in his "History of the English Army," gives us an account of two of them "riding before Queen Anne's coach with fixed bayonets; which bayonets had handles with rings fixed to them, for the admission of the barrel of the piece" (vol. ii. p. 342).

In 1735 we have the curious work of Bernard Lens, "limner to his Majesty," published by his son, and to be had only, as he tells us, "at his lodgings at Mr. Mitchell's, a peruke maker's, in Jermyn Street, Saint James's." The prints, he says in his Dedication to the Duke of Cumberland, "naturally fly to your Royal Highness's patronage, and are with the profoundest respect and humility," &c., &c. The armament here consists of pouch, match, fusil with sling and *socket* bayonet, and basket-hilted sabre. The figures are nineteen in number, and 7 inches high; one of which, labelled "Blow your Match," is here reproduced.¹

An arrangement, by which large and small shells might be fired at the same time from one mortar, is shown in Daniel's "Milice Française" (vol. i. p. 587, and pl. 41). The smaller shells are called *Perdreaux*; resembling, he tells us, a covey of young partridges, among which the bomb represents the mother partridge—"comme une compagnie de perdreaux, dont la bombe represente la mère perdrix." This device does not appear to have had any very great success, presenting probably too much analogy to the equally ingenious invention of the large aperture for the cat and the

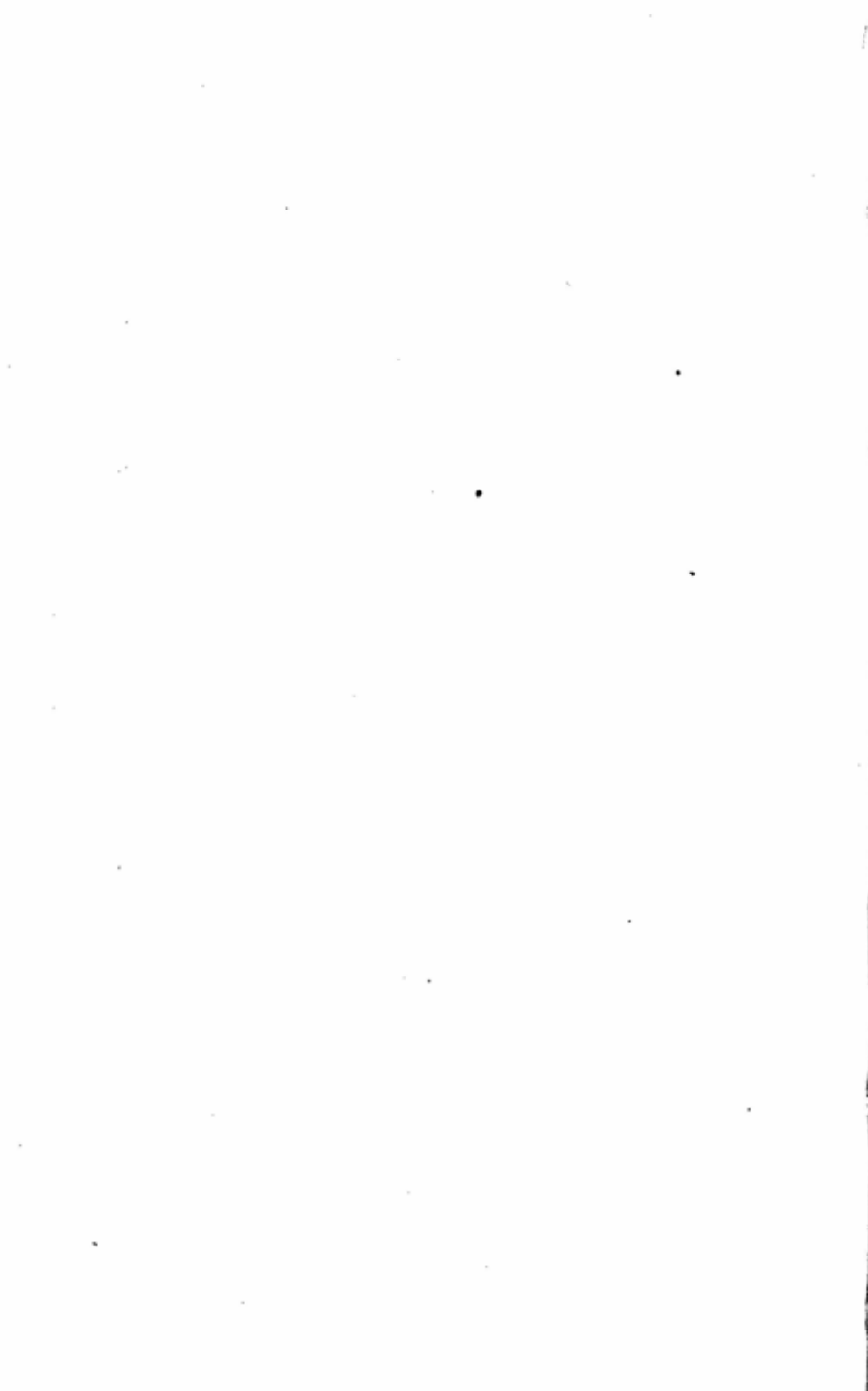
¹ The title of this curious and rare book, of which a good copy exists in the Royal Artillery Library at Woolwich,

is "The Grenadiers' Exercise of the Grenado in His Majesty's First Regiment of Foot Guards."



Grenadier of H.M. First Regiment of Foot Guards, 1735.

From an engraving by Bernard Lens, limner to George II.



smaller one for the kittens. Wall-grenades are, as their name indicates, for use in defence of walls against a besieging force. In Grose's "Ancient Armour," there is a curious plate of an instrument, which he calls "a Tinker's mortar": "this," he says, "being fixed on a stick, was used for throwing grenades." It is figured on plate 49 of his work. Somewhat similar are the cups affixed to fusils for firing grenades, of which examples will be found in the Tower and Woolwich collections. Those in the Tower are of the time of James II.

The HAND-MORTAR now before us appears to be of the early part of the seventeenth century; the invention itself being probably of about the same date. It has a wheel-lock, the brass barrel has the arms of Wurtemberg chased upon it near the muzzle. The calibre of the mortar is $2\frac{3}{8}$ in.; of its chamber 1 in.; depth of the chamber $2\frac{1}{2}$ in.; of the mortar $4\frac{5}{8}$ in.: total length of the weapon $2\frac{1}{4}$ ft. The stock, it will be seen, is contrived in the view of lightening the piece as much as possible. It is inlaid with ivory, having the figure of a cannonier directing his battery against a walled town. Several other examples of the hand-mortar will be found in the Tower and Woolwich museums, all having flint locks. There is one in the Goodrich Court collection, figured in the second volume of Skelton's "Illustrations." It has both match and wheel-lock. In the fine specimen-number of M. Micol's *Panoplie Européenne*, depicting various arms in the Museum of Bordeaux, we have a representation of a hand-mortar of the eighteenth century. It closely resembles the most recent of the Woolwich examples. It seems clear, from the rarity of specimens, that this implement, the Hand-mortar, was never of extensive adoption; and the same may be said of the Fusil-mortar. Indeed, a whole museum might be filled with projects for destruction which have never destroyed anything but the fortunes of their inventors.

Original Documents.

EARLY HISTORICAL DOCUMENT AMONG THE MUNIMENTS OF THE TOWN OF AXBRIDGE.

IN the autumn of 1861, by the courtesy of the Corporation of Axbridge and its officers, I had an opportunity of inspecting the records of this corporation. Among them I found the following detached roll or memorandum which relates to the town and its vicinity and to the well-known incident of the hunting of King Edmund on the Mendip hills, which is recorded by the biographers of St. Dunstan. The document was not new to me. In fact it was one of my objects of search; for a translated copy of it had been long before published in "Rutter's Delineations of the North-Western Division of the County of Somerset" (London, 1829), and had thence found its way into other local guides. The supposed origin of English boroughs, and especially that of Axbridge, is incidentally noticed in it.

The character of the handwriting is, I apprehend, that of the beginning of the fifteenth century:—

Temporibus Adelstani, Edmundi, Edredi, Edgari et Sancti Edwardi, aliorumque Regum Anglie antiquorum gubernatio quidem regni hec fuit. Videlicet, quod per consilium Sanctorum Dunstani et Alpegi aliorumque regni spectabilium virorum ordinatum fuit ut fierent burgagia, id est maneria sive mansiones regie, nam 'Borough,' Anglice, latine sonat 'mansio' seu habitatio, unde et in presenti foveas vulpinas appellamus 'boroughes,' que constructa fuerunt diversis in locis in qualibet regni parte prout regie magestati tempus et loci situs commodius delectarent. Et eciam quod fierent Custodes in quolibet Burgo, qui tunc temporis vocabantur 'Wardemen,' idest 'Portereves' Constabularii ceterique officarii qui regio nomine ordinarent victualia: Videlicet frumentum vinum et ordeum oves et boves ceteraque pecora campi et volucres celi piscesque marinos pro tempore quo Rex in Burgo prefixo moram cum suis trahere decretaret. Namque per regium consilium assignatum erat cuilibet Burgo tempus certum spaciumque temporis quamdiu cum suis in hujusmodi (*sic*) demoraretur. Si vero contingeret illuc Regem non adesse tunc omnia preordinata in foro predicti Burgi venundari deberent et pecunia inde recepta in fiscum regium per officarios predictos inferri liceret. Preterea per dictum consilium forent villagia per circuitum dict' Burg' adjacentia in quibus essent villani et nativi qui terram incolerent animaliaque nutrent et cetera que ad opus supradictum necessaria forent ad victum officiariorum burgorum supradictorum. Vixit itaque Rex in illis diebus de propriis dominiis sive maneriis sicut ceteri domini modo faciunt et hoc omnino ne regnum in edie gravamen incurreret.

Interdum vero estivabant Reges circa forestam de Minndep venandi gratia in qua tunc temporis fuerunt cervi non pauci ceterarumque ferarum genera diversa. Nam, ut legitur in vita Sancti Dunstani, Rex Edmundus qui Glastonie requiescit¹ accessit venaturus ad forestam supradictam, Burgo regio tunc apud Axebrigge existente. Idem vero Rex triduo perantea beatum Dunstanum a curia sua cum magna indignatione ac sine honore abjecerat quo facto Rex in silvam venaturus ivit. Silva autem ipsa montem magne altitudinis occupat qui mons in summitate sui interruptus ingens precipitium et horridum abissum spectantibus offert quod ab incolis *Ceddercliff* appellatur. Cum ergo fugitantem cervum Rex hac et illac insequeretur, cervus ad preruptum montis hiatum perveniens introrsum ruit ac in partes discissus interiit. Insectantes canes par ruina involuit. Equus autem quem (*sic*) Rex sedebat ruptis habenis effrenis effectus obstinato cursu regem post bestias portat et ultimam sortem Regi pre se patens baratrum intentat. Ille trepidat et angustiatur. Occurrit interim animo ejus injuria Dunstano nuper illata. Ingemuit et se quam citissime illam multiplici emendatione correcturum, solomodo imminet sibi mortem ejus meritis² ad horam Deus avertat, Deo celeri mentis sponse promittit. Cujus cordis preparationem auris Dei evestigio audiens illius misertus est. Equus namque illico substitit et Regem a periculo mortis liberatum valde magnificans (?) Domino grates ex intimo cordis persolvere fecit.

Inde ad hospicium, scilicet ad Burgum de Axebrigge, Rex reversus adunatis principibus suis rei que acciderat ordinem pandit et Dunstanum cum honore ac reverencia adduci precepit et eum postea fidelissimum amicum in omnibus habuit.

Et sic in Axebrigge fuerunt xxxij^o burgences quibus concessum fuit a supradictis regibus jus venandi atque piscandi in omnibus locis warennis exceptis. Videlicet a loco qui dicitur Cotellisasch³ usque ad petram que vocatur le Blakestone in mari occidentali. Et de predictis xxxij. burgencibus fuerunt xiiijcim seniores principales qui tunc vocabantur Sokmanni idest 'Wardemen' sive 'Aldremanni,' ex quibz omni anno ipsimet eligerent unum 'portereve,' qui modo per statutum regium⁴ 'Major' vocatur et unum ballivum et duos constabularios ceterosque officarios qui in gubernatione illius Burgi forent necessarios ut veniente regio Senescallo in festo videlicet Sancti Michaelis facerent coram eodem fidelitatem Regi et regno de hujusmodi gubernatione et de pace servanda. Et sic villa de Axebrigge cum manerio de Cedder fuit proprium dominium Regis.

Et nota quod hec duo Maneria, videlicet Somerton et Cedder, cum appendiciis suis reddebant firman unius noctis tempore Sancti Edwardi Regis et Williemi Conquestoris prout patet in libro qui dicitur 'Domysday,' folio secundo, ubi agitur de Comitatu Somersetensis sub titulo 'Terre Regis' in libro supradicto ubi continetur sic:—"Rex tenet Chedder. Rex Edwardus tenuit. nunquam gildavit nec scitur quot hide sunt ibi. Terra est

¹ Rutter translates the words "qui Glastonie requiescit," by "who sought retirement at Glastonbury," and substitutes *Edward* for *Edmund*. The passage refers to the place of interment of King Edmund at Glastonbury.

² Rutter fancies that the words "ejus meritis," refer to the death that "deservedly threatened" the king; whereas, they refer to the merits of the saint as

the immediate cause of Divine interposition.

³ Rutter identifies this Cottle's Ash with Cottle's Oak, near Frome.

⁴ Translated by Rutter "by royal charter." We shall hereafter see reason to doubt whether any royal charter of incorporation issued before the reign of Philip and Mary.

viginti carrucate.⁵ In dominio sunt tres carrucate et duo servi et unus colibertus et xvij villani et xx Bordarii cum vij carrucatis et vij gablatores redentes xvij solidos. In Alsebrige trigiinta et duo burgenses red' xx^{ti} solidos. ibi duo Molini red' xij solidos et vj denarios et iij piscarie red' x solidos et xv acre prati, pastura j leu^ce longitudine et tantumdem latitudine red' per annum xxj libras et ij denarios et obilum de xx mora⁶ silva ij le . . . longitudine et dimidium latitudine. de hoc Manerio tenet Giso Episcop[us] unum membrum Whetmore, quod ipse tenuit de Rege Edwardo. pro eo computat Willielmus Vicecomes in firma Regis, xij libras unquoque anno. De ipso Manerio est ablata dimidia virgata terre que fuit de dominica firma Regis Edwardi. Robertus de Otburguile tenet et xv denarios valet. Hec duo Maneria Somerton et Cedder cum appendiciis suis reddebant firmam unius noctis tempore Regis Sancti Edwardi."

Et sic Willielmus Rex et omnes successores sui Reges habuerunt dictam villam de Axebrigge cum Manerio de Cedder in proprio dominio usque ad annum quintum Regis Johannis, quo anno idem Johannes Rex concessit dictum Manerium de Cedder cum villa de Axebrigge et hundredis de Wynterstoke et Cedder Hugoni Archidiacono Wellensi pro xx libris solvend' ad terminos Michaelis et Pasche, ut patet per quandam cartam inde confectam.

This document has been translated with tolerable correctness by the author of the "Delineations of the North-Western Division of Somerset," already referred to. I have noticed some inaccuracies, in notes subjoined to the text.

It should seem to have been the principal object of the author of the above detached roll or document, to describe the state of the town of Axbridge, and, incidentally, to propound an historical theory of the rise and establishment of Saxon boroughs in England, which are here ascribed to the policy of providing the king with various places of occasional residence in different parts of the realm, and with means of support out of his local revenues, or other contributions, while so resident. Such a theory could only be strictly applicable to a royal burg near to, or containing, some demesne lands of the crown. A Saxon "burgus" was not indeed necessarily a vill or town at all; but Axbridge has been for centuries both a "burgus," in the ordinary sense of the term, and a vill or township. It has been also called a "manor," in some early documents. It seems to have immemorially possessed something like a local government in connection with the immediate officers of the crown.

That several successive Saxon kings possessed not only forestal rights and demesnes at Cheddar but also a *palace*, is clearly shown by several

⁵ The syllable *car'* in the Domesday has been extended in this document into "carrucata," a liberty which can rarely be allowed to a translator of that Survey.

⁶ This is an error in the transcript from Domesday. The words *in ora*, should be substituted for *mora*. The Domesday runs thus "red. per annum £20 et 2d¹/₂ de 20 in ora," and then proceeds to specify the length and breadth

of the wood. Rutter seems to have supposed that the "mora" here meant the inclosed lands on the moor which still exist by the name of *moor-hayes*, near Uxbridge. As to the precise import of the words *in ora*, used in connection with money, Sir H. Ellis's work on Domesday may be consulted for the current opinions.

charters, of which the tenor is still extant. These will be found in Kemble's *Diplomata*: one of Edmund, A.D. 941, speaks of "villain qui celebri set Ceodre" [dicitur?] (vol. v. p. 270); one of Eadwig, A.D. 956, mentions the "palatio regis in Ceodre" (vol. ii. p. 322); another of Eadgar, A.D. 978, is dated thus—"acta est paschali sollempnitate sede regali set Ceodre" (vol. iii. pp. 136, 137). The above are also found in Thorpe's *Diplomatarium*, etc. (pp. 234, 236, 487). Mr. Thorpe indeed thinks there was also a convent or abbey at Cheddar, but on grounds which hardly seem to me strong enough to warrant the conjecture.

That there was for many centuries an intimate relation between the manor of Cheddar and the town of Axbridge, and that the title to both was long identical, is certain. Both are mentioned under the title of "terra regis" in the Domesday Survey, and they are so described in it as to indicate that they both appertained to the single head of Cheddar in the Survey; nor is there any inconsistency in supposing that the vill was parcel of the royal demesne of Cheddar. This connection is still more apparent in the Exeter Domesday. The palatial residence may have been situate within the limits of the ancient burgus. The Survey shows that Wedmore was formerly also a member of the same manor, but had been dismembered in favour of the See of Bath.

Both the manor and town were alienated by the crown in the reign of John, and eventually the lordships were united in the above See, and continued to be so until they were reconveyed to the crown after the Reformation, and thence passed into private hands.

To what extent the rights, public and private, within the town were affected by these successive alienations, or by the operation of the several charters afterwards granted to the town, I am not in a condition to say; nor indeed do the inhabitants seem to have any clear ideas on that matter themselves, so far as I can learn.

The successive alienations immediately after the grant of King John in the fifth year of his reign are set forth in the several charters printed by Hearne in the *History of Glaston* by Adam de Domerham; in the printed charter rolls (p. 129); and in the printed hundred rolls (vol. i. p. 126, etc.).

Though Collinson and Rutter both refer to other supposed incorporations of an earlier date, the first charter known to me in relation to Axbridge entitled to that designation is that of 3 & 4 Phil. and Mary (part iii. of the roll of that year). The recital in this charter distinctly asserts that it had been a burgus time out of mind, with thirty-two burgesses, of whom fourteen of the elders were called "sokmanni, sive wardmen," or "aldremanni": that of these one was annually chosen to be "prepositus" or "prefectus," commonly called "Porte-reeve," as well as a bailiff, two constables, and other "officiarii," necessary for the government of the borough, subject to a rent or payment of 60s. 2½d. The charter then proceeds to incorporate the town, professedly for the first time, under the title of mayor and burgesses of the borough and vill of Axbridge.

This charter was confirmed by a long one of 41 Eliz., now considered to be the governing charter (part v. of the patent roll of that year), and again by another of 21 James I. (part viii. of the roll).

I think it improbable that there was any earlier incorporation. The recital of the first above mentioned is at variance with the supposition. The Axbridge document at the head of this paper refers, indeed, to the name of "mayor" as being used "per statutum regale" instead of port-

reeve, at the time of the writing of that document. But "statutum regale" is not usually descriptive of a charter among instruments of that date. The town was, in fact, what many of our ancient boroughs originally were, a borough by prescription with forms of government sanctioned by long usage, and perhaps obscurely indicated in the Domesday Survey by the "thirty-two burgenses" there specified. Collinson cites the Pipe roll of 14 Hen. II. as proof of government by a portreeve at that time. Payment is there recorded of "auxilia," or aids, by two persons there named, and by the "cæteri homines cum communi villæ;" but this entry is too general and loose to show the exact form of rule within the borough. The introductory part of the above charter of Phil. and Mary is, however, decisive, and confirms the general statement contained in the Axbridge document above transcribed.

The earlier grants found in the corporation muniments relate to the grants of Cheddar and Axbridge, *temp.* 5 John, and of franchises connected with them; among which are those of 11 Hen. III., 12 Hen. III., and 23 Hen. III., and 7 Edw. I., in the printed charter-rolls.

It is singular that the very learned Madox should have quoted Axbridge as an instance of an unincorporated vill impleaded by the general name of "homines burgi de Axebridge" in the Exchequer, *temp.* Charles I. (*Firma Burgi*, p. 84).

It is probable that the difficulty and risk attendant on boroughs which had to rely on a title by prescription, suggested the application to the crown for a formal charter of incorporation in the sixteenth century.

During the reign of Henry VI. and his immediate successors occur many decisions, reported in the Year-books, respecting the form and effect of incorporations; and about that time the law may be said to have been in the course and progress of adopting more definite ideas on the subject, not entirely matured until the times illustrated by the decisions reported by Lord C. J. Coke. I think that *formal* municipal incorporations will be found to be rare until the fifteenth century. Charters of franchises granted to persons, and to bodies of persons supposed and assumed to be already competent to accept them, are common enough.

It is observable that three other "ceders" or "cedras," besides that in the crown, are named in Domesday. These are mentioned by Collinson, and the devolution pointed out by him (vol. iii. p. 561 *et seq.*). From his statement I should infer that there are still such vestiges of mutual connection between these and the crown manor of "Cheddar Episcopi" as to prove that they were probably sub-manors detached by subinfeudation, alienation, or descent, from great royal manor. The grant by John shows that the manor also gave its name to a distinct hundred at that time, which has since become merged in that of Winterstoke.

The records cited in Domerham's History (vol. i. p. 194) show that there was an ancient forest on the Mendip hills; that the forest had been unduly extended by Hen. II. over many adjacent parishes and places, which were afterwards disafforested by a perambulation in the reign of Edw. I. The boundaries before and after perambulation are all specified in the record by that writer. Axbridge and its "moor-heighes" were, it seems, left within the forest limits.

Some of the biographers of Dunstan seem to have supposed that the forest in which the Mendip hunt occurred was so called from cedar trees in it, and they therefore lay the scene of it in the "Mons cedrorum."

Such are the observations which I have to offer on the Axbridge document, so far as regards its secular character. On the incident of the hunting on Mendip by Edmund, I am tempted to add a further comment.

The story has been lately referred to by an ingenious correspondent of the "Gentleman's Magazine," N.S., Nov., 1866, who has lately had an opportunity of comparing the narrative which he found current on the spot, with the earliest known biographical memoir of St. Dunstan found in the Cotton Library, Cleopatra B. 13, in the British Museum.

He speaks of it as a tradition still familiar "among a poor and ignorant peasantry, who know nothing about history, but have simply told their children what their fathers had before told them," and he refers to it as a story that must have been "handed down from generation to generation for nearly 1000 years" among those peasantry.

I presume that the writer refers to the case of pure "tradition," properly so called, and not to "history" or *written tradition*, which he pointedly distinguishes from *oral tradition*, as being perhaps the work of "biased and prejudiced" penmen.

I am inclined to suppose that the author was not aware how near he was, during his stay in that pleasant country, to an efficient documentary reminiscence of the old story still extant in the keeping of the mayor and burgesses of Axbridge, from which the peasantry might easily *refresh* their memories through the medium of their more intelligent neighbours, or of the common printed guide-books of that part of Somerset.

Without impeaching universally all oral reports or tradition I must avow that I can assign no value to them unless accompanied by other extrinsic circumstances which make it reasonable to believe them. If B. states a fact which he heard from his father A., it is a condition of credibility that A. should have been a witness of it, or, at least, have been in a position to make his own personal knowledge of it highly probable. Without this condition the statement of B. is no more than idle gossip—a mere rumour—"tam ficti pravique tenax, quam nuncia veri." Where the statement is to pass through a succession of persons, fathers and sons, the value becomes less at every stage, for it soon becomes impossible to verify the relative position of each successive declarant, or his means of knowledge. In short, anyone who has had ordinary experience of the various sources of error, misconception, and misstatement (apart from intentional falsehood) must see that every step in the devolution of a mere oral narrative makes the attainment of truth more difficult. In fact, it becomes *impossible* to say whether it be, or be not, a real case of tradition at all; that is, of oral devolution through successive generations from the first happening of the event or fact down to the last hearer or recipient of the tale. We do not, and cannot, know whether facts have not been varied, or tampered with, in the series; for there are prejudiced and loose *talkers* as well as prejudiced *writers*, and rather more of the former than of the latter class.

In cases where there exist no written records,—as in a newly-discovered island where nobody can write,—oral tradition is all we can have to trust to; and we may be sure that, in such a state of things, the traditions will be sufficiently absurd to deserve no reliance at all.

History stands on a very different footing. We have to exercise our judgment not on oral reports but on the written reports and statements of persons *primâ facie* being what, on the face of their written relations, they purport to be, whether it be Tacitus, or Cæsar, or Orosius, or the contem-

porary biographers of Dunstan himself in *ci-devant* monastic libraries, who attest—I will not say a miracle or providential interposition in the case of Edmund (as to which I express no opinion)—but, at all events, his “hair-breadth escape in the imminent deadly breach” at Cheddar.

In the discrimination of such venerable records, which have been preserved with unquestioned authority for 1000 or 2000 years and upwards, there may no doubt be room for criticism or scepticism, but the fact of authorship is substantially unimpeached, and we assume, with confidence, that the writings are the genuine productions of those who had fair historical means of ascertaining the events recorded by them. With this we are content; and we do not seek to confirm their statements by ascertaining what rumours are current among the peasantry of Rome or North Somerset, or at the head-quarters of the Abbots of Glastonbury.

The invaluable collection of MS. historical materials for history by my friend, Mr. Hardy, shows that some thirty or more biographical memoirs, of various dates, beginning with one nearly contemporaneous, have commemorated the prominent events of the active life and labours of Dunstan. He left behind him a memory that has made a lasting impression on the history of the Anglo-Saxon race in this country, and the inevitable consequence was that he became decorated with posthumous tales and figments, as to some of which we may venture to be incredulous. We may be sure that the local clergy, regular and secular, of the Middle Ages (the sole purveyors of history in those days) would be well disposed to circulate a knowledge of so sensational a catastrophe as the perilous chase at Cheddar and the merits of so venerable a name as that of St. Dunstan. Yet knowledge so obtained from them by an unlearned laity would no more constitute oral tradition, than the knowledge that a schoolboy acquires from a village normal teacher of the story of King Canute, and his unsuccessful attempt to control the Atlantic tide on the shore of Southampton Water some 800 years ago.

Still more easily might such a modicum of local history be attained where there has existed, as in the present case, for about 450 years, among the public documents of a town close at hand, a plain narrative of so remarkable a local incident. The story must by this time have become as familiar on the Mendips, as the encounter of the same eminent personage with the intrusive demon, who visited him in his laboratory at Glastonbury; and this without resorting to the theory of an unbroken oral tradition extending from the actual occurrence of this affair of the red-hot forceps down to the present time. Local guides and handbooks in later times have brought home the knowledge of King Edmund's peril even to the troglodite dwellers in the caves of Cheddar and Wokey, who no doubt duly retail it, together with the pinks and potato-stones of that district, to all curious visitors of those beautiful mountains.

E. SMIRKE.

Proceedings at Meetings of the Archaeological Institute.

JUNE 1, 1866.

The MARQUIS CAMDEN, K.G., President, in the Chair.

A MEMOIR, by the late Mr. Joseph Beldam, F.S.A., of Royston, was read, describing the course of the Icenhilde Street, and vestiges of early occupation in the district adjacent to the author's residence. These remains have been for many years the object of his careful explorations. He laid before the meeting a map in which the results of his researches were fully detailed.

The Institute has to regret the sudden decease of a valued friend of the Society, which took place not many days after this, a long-promised communication, was received. Mr. Beldam had for some years shown a very cordial interest in the welfare of the Institute, of which he was an early member.

Mr. J. H. PARKER gave a discourse on the Primitive Fortifications of Rome. He pointed out that there are traces of early defences on each of the hills, consisting chiefly of the scarped cliffs on all sides of them; each hill has been originally a separate fortress, and, in each case, below the scarped cliff, is the slope called in Rome and in Aricia, but nowhere else, the *pomoerium*; a local name for this part of the fortifications; it perplexed the writers even of the time of the Empire. At the foot of the slope was the outer wall, the *agger* or *finis*; beyond that the *fossa*, and at the bottom of the *fossa* was usually the *via*. These two are so constantly united that the term *via-fossa* is proposed to distinguish them. From many passages in classical authors it is evident that the original settlement was on the Palatine, and that this was surrounded by cliff, slope and foss, from the beginning; the foss marked out by the plough with oxen was one of the earliest incidents in the history of Rome. To this original city on the Palatine the Capitol was speedily added as the *arx* or citadel, more strongly fortified than the rest, as was usual; in this case it was a natural rock, which none of the other hills were; this was called the Tarpeian Rock; all the other hills had the cliffs scarped, that is, cut by the hand of man, and the earth must always have been supported in a vertical position by artificial means, originally by boarding, and, as the boards decayed, by stone walls. There are remains of walls of the time of the Kings of Rome on each of the Seven Hills, and in other parts there are walls of the times of the Republic and of the Emperors, sometimes built upon or against the walls of the Kings. The roads at the low level at the bottom of the *fossæ*, called covered ways, became the streets of the city, and their level was not

changed until the time of the Empire, when the alteration began for convenience, and has been progressing ever since. The market-places or *feriæ* were at the same level as these original streets. All early cities consist of three parts, the *arx* or citadel, the town, and the pasture-ground. In Rome accordingly there were originally the Capitol as the *arx*, the Palatine or town, and the Aventine or pasture-ground. The *arx* had a triple line of fortification, the town had a double line, and the pasture-ground a single line only. For this reason there was no *pomærium* to the Aventine, because there was no outer wall; the *pomærium* signifying the *post-murum*. The Aventine had no *pomærium* until the time of the Emperor Claudius, who on enlarging the city added an outer wall in that part. The Seven Hills were combined into one city by the later kings, especially by Servius Tullius, who built a great *agger*, more than a mile long, on the eastern side of the city, where the slope was too gradual to admit of a scarped cliff. In other parts he only strengthened the cliffs, and connected the hills together by short *aggers* with gates. An *agger* is defined by Varro as a great bank of earth with a wall in the middle of it. The great *agger* of Servius Tullius has in recent times been cut through by the railroad, and the sections agree exactly with the description of Varro. Servius also added an outer *agger* or *fnis*, parallel to the cliffs, all round the city except at the Aventine. Between his great *agger* and the smaller one or *fnis*, is the *pomærium*, with a wide and deep foss. The outer *agger* was not more than ten to twenty feet high; upon this outer *agger* the wall of Aurelian, a hundred feet high, was afterwards built. The enlargement and new fortifications of the city were begun by Sulla and continued by the early Emperors, but their enclosure was an *agger* only until the time of Aurelian, when the high wall was added on the whole extent. The change from the low wall or *agger* to the high wall was made in the third century; the gateway fortresses of Honorius were added in the fourth. The change in the height of the walls was caused by a change in the mode of attack and defence, and the introduction of "hourds," or wooden galleries, high from the ground for better defence. An hourd continues in use on a tower in the Transtévère, a very rare example. The holes for the hourd, called put-log-holes, may be seen all round Rome in the upper parts of the walls and towers. These galleries or hourds were sometimes carried on corbels of stone or marble, a series of which remain on the front of a house incorporated in the wall of the city, near the Porta S. Lorenzo. In other places, as on part of the Prætorian Camp, the corbels have been cut off.

To understand early fortifications, it is necessary to know the mode of attack and defence in use at the period when they were built. The best information is to be found in M. Viollet le Duc's Dictionary of Military Architecture, one of the most valuable archæological works of our day; he shows the great use that was made of timber in all early fortifications, both alone and in constructing towers on stone walls.

The detached hills in the neighbourhood of the city were occupied as detached forts, connected with the city by a covered way or *via-fossa*, but not made part of the city. The Janiculum, the Vatican, the Pincian, the Sessorium, the Lateran, were all detached forts of this description; there were also several others which may be traced by their *fossæ*. There were similar detached forts round the Etruscan cities, where the situation provided hills for the purpose, such as the Insula at Veii.

The banks of the Tiber were also fortified; at first only the short piece

between the Aventine and the Capitol, called the *Pulchrum Littus*, part of which, of the time of the Kings, remains; this was continued when the fortifications were enlarged, northwards by Sulla, southwards by Claudius. In and behind parts of the *Pulchrum Littus* are the four mouths of the great *Cloaca*; that of the *Cloaca Maxima* was the southernmost, through which the *Acqua Crabra* still runs; it is in the style of the Kings, constructed of large stones not cut by the saw, and without cement. Another, more northward, is of the time of Camillus after the capture of Veii, and quite of Etruscan character. Nearly opposite to it there are some remarkable large corbels for carrying an iron chain across the river; they are carved in the form of lions' heads, and are of late Etruscan character. These are often under water, and had not been observed until accidentally discovered by Mr. Parker.

The memoir was illustrated by an archæological plan of Rome and by a number of photographs of the objects mentioned. The great point which Mr. Parker sought to bring out was that these early remains confirm in a remarkable manner the early history of Rome, according to the First Book of Livy, which some writers regard as a myth. The earliest fortifications of Rome are evidently copied from those of Alba Longa; there is a remarkable reservoir for water on the Palatine, in a cave on the rock, which continued to be used in the time of the Republic, as shown by existing walls of both periods. This same reservoir resembles one at Alba Longa; similar reservoirs in caves have not been observed elsewhere.

Mr. JOHN GREEN WALLER, to whose artistic skill and minute investigation we are indebted for the admirable series of reproductions, on a reduced scale, of the most remarkable Sepulchral Brasses that exist in England, communicated the following account of an unique memorial in Kent, visited by the members of the Institute on occasion of the annual meeting at Rochester in 1863, as related in this Journal, vol. xx., p. 407.

"I send, by the courtesy of Mr. F. C. Brooke, a drawing of the inscription on Cowling Castle recently made by me. It is as nearly as possible a fac-simile of its present state, no published transcript nor drawing of it being precisely accurate. As far as I am aware, the interesting character of this relic as a piece of workmanship is not generally known. Indeed it would be impossible that it should be unless it had been closely examined. In the autumn of 1864, by the kindness of Mr. Murton, the present tenant of the Castle, ladders were procured by means of which myself and Mr. Roach Smith, who accompanied me, were enabled to give it a minute inspection, and also to take such rubbings from it as the corrosion and nature of the surface permitted. From these the drawing exhibited has been made, and it has afterwards been carefully collated upon the spot. The inscribed plate proves to be a very fine specimen of enameled work, perhaps an unique example of such work used in the open air. It would be impossible to exceed the beauty of the execution, and the amount of manipulation spent upon it for the purpose of receiving the enameling is quite marvellous, and can only be understood by actual inspection. To those who know this interesting work it would be unnecessary to say that it represents a parchment deed with its appendent seal. The material is copper, and the inscription consists of twelve plates, each line consisting of three, the rest of the work being completed in about two pieces. The white enamel is still in fair preservation, and the colors, both of the shield of arms and of the cordon by which it is attached, which are the heraldic

colors of the arms of Cobham, red and black, are generally preserved, though in a state of corrosion and decay. But the ground of the ornament around the shield shows no color that can be made out. It is entirely decayed. The chevron of the arms showed traces of gilding, but very faintly, yet the preservation of the surface of this part of the metal is no doubt due to the fact of it having been gilded. The only part lost is one of the tassels of the cordon, and that was gone at the time that Gough published his *Sepulchral Monuments*, as his engraving is without it. When we consider the vicissitudes of time and circumstances, it is rather a matter of wonder that so interesting a relic should have escaped with so little injury to the present time. Some of the plates of the inscription, however, were lost a few years ago, and afterwards discovered in cleaning out the moat; these were laudably refixed in their places. Unfortunately, owing to the ignorance of those who refixed them, the mode employed is now working more mischief than the past five centuries, and insures the certain destruction of the work at no very distant date. The loose plates were fixed with iron nails, and the consequence is that, owing to a well-known law, a galvanic action is set up, by which both metals are being gradually destroyed, one rapidly, the other slowly. The effect of this is very visible, not only around the orifices through which the nails are placed, but it is evident from the green stain of the stone immediately beneath the plate that corrosion is going on rapidly behind. The plate has at some time or other received injuries that appear to have been done out of mere wantonness. This is faintly indicated in the drawing, and seems to me to have been effected by the discharge of fowling-pieces against it. It is to be hoped that this will never again occur, but it is a reason, amongst many others, that renders it advisable to employ some means for preserving the work from the effects of the weather and other casualties. One thing at least is required, and that is to withdraw the iron nails and substitute copper ones, but it is a question for consideration whether some means should not be taken for the better conservation of this work *in situ*. Such a plan I have considered, and believe to be practicable.

“The inscription runs thus :—

Knoweth that betw and schul be
 That i am mad in help of the cuntre
 In knowyng of whyche thyng
 Thys is chartre and wptnessyng.

“Beneath are the arms of Cobham appended as a seal, viz., *gules* on a chevron or three lions rampant *sable*. The inscribed portion measures 32 inches by 14 inches; the diameter of the seal is $7\frac{1}{2}$ inches.

“John, third Lord of Cobham, who erected Cowling Castle, having obtained the license to crenellate in 1380, is said to have placed this inscription upon the gateway in order to disarm the jealousy of the court aroused by its strength. There is great probability that this tradition is correct. He was during the greater part of his life an opponent of the court faction of Richard II., and was one of the insurgent lords who held a meeting at Haringhay Park, near Hornsey, in 1387, for which he was afterwards banished and had his estates seized by the King, and which were not restored until the accession of Henry IV.

“It is to be hoped, therefore, that a relic of so much interest will not be allowed to fall into any further decay.”

Antiquities and Works of Art Exhibited.

By the Rev. GREGORY RHODES.—A remarkable Greek gem, an intaglio on jacinth, the head of Sappho. It was formerly in the Meertens-Schaafhausen collection; and is noticed by Mr. King (*Antique Gems*, p. 160) as the most ancient intaglio head that had come under his notice. The head is crowned with myrtle, and described as much in the Egyptian manner, and resembling the types of the earlier coins of the Egean Islands. Portrait heads, Mr. Rhodes observed, and even the heads of divinities, never occur on the most ancient gems; it was only a short time before the art attained its maturity that the engravers attempted heads, possibly about 400 B.C. This head, however, is evidently of an earlier age and might have been executed a century or more previous to that period; it might therefore have been engraved during the life-time of Sappho, or shortly after.

By Sir J. CLARKE-JERVOISE, Bart., M.P.—A denarius of the Emperor Domitian, in fine preservation, found in Hampshire near Sir Jervoise's residence, Idsworth Park.

By the EARL of DUNRAVEN, F.S.A.—Three silver dishes, found near the Abbey of Fore, co. Westmeath, at a depth of seven feet. They are in possession of Dr. Stokes, of Dublin. Canon Rock stated his opinion that they had been destined for domestic uses, and may be regarded as of Irish workmanship, date about 1200. The Abbey of Fore, Fourre or Favory was founded by Walter de Lacy in 1209, for Benedictine monks from the Abbey of St. Taurin, in Normandy.

By Mr. DODD.—Two MSS., date fourteenth century; the Holy Scriptures and the New Testament.

By the Rev. EDWIN JARVIS.—Two curious pieces of mediæval iron-work, of unknown use. One of them, found near Hackthorne, Lincolnshire, consists of two leaf-shaped pieces of metal, the edges of which are jagged or serrated like those of a leaf; the ends that resemble the stalks are recurved, forming loops by which the two objects are linked together. The point of each leaf-like piece is bent backwards and serves as a catch for a flat spring of metal, somewhat resembling the acus of a fibula. The length of the two portions when extended is eight inches. The other, obtained in Italy, is of more solid work, and consists of three tortuous links, with serrated edges, looped together; two small rings are appended at one end, and one at the other. The whole measures $6\frac{1}{2}$ inches in length. The workmanship is skilful; this singular object recalls the fashion of certain decorated chains by which a lamp or the like is occasionally seen suspended in the South of Europe. It was probably destined for some such use in a church or mediæval house.

By Mr. OCTAVIUS MORGAN, M.P.—A Dutch silver prize-whip, given by a society for the best horse, at some Racing-meeting in 1798. It measures 4 feet in length, and resembles in fashion a civic mace rather than a whip; at the lower end there is a broad knob or boss, on which there is an inscription as follows, being translated:—"This whip is presented to the owner of the best Race-horse at the House of Castellan Rinert Schattenburg, in the Green Meadows near Groningen, the 20 Aug. 1798."—The stem, which gradually diminishes in thickness towards its upper extremity, is divided into four joints by smaller knops; the foundation seems to be a rod of whalebone covered with black velvet, and this is encased between

the knops in pierced-work of silver *repoussé*, with figures of the Cardinal Virtues and like devices in elegant scroll patterns and foliage. At the upper and smaller extremity there is a ring to which doubtless a thong was attached.

By Col. TEMPEST.—A Portrait, formerly in possession of Sir Richard Phillips, and, as stated, mentioned in one of his works. It has been engraved as the portrait of Chaucer, but it is questionable whether it can be recognised as representing the author of the *Canterbury Tales*.

By Mr. J. J. ROGERS.—A large copper coin, supposed to be a Swedish dalar, found in a crevice in the inner walls of a building at Carminow Barton, Cornwall, lately demolished. It measures about $1\frac{3}{4}$ inch in diameter; on one side is an escutcheon charged with a lion rampant, and ensigned with an arched crown. Above are the initials G.R.S., and in the field the numerals 16—84. On the reverse are two arrows in saltire with a crown in chief (? Dalecarlia); in the field—OR.S:M: Mr. Rogers suggests that the coin may have been brought to the Western shores by some sailor; Carminow, moreover, was a great resort of smugglers, and he found three well-contrived vaulted hiding-places under the floors of the various buildings there, each capable of holding 50 to 100 kegs. It may deserve notice that in excavations for a new vestry at Bovey Tracy, Devon, in 1815, several copper dollars, supposed to be Swedish, were found, which appeared to have been deposited in the hands of a corpse of large stature interred on the North-East side of the church. The specimen described (*Gen. Mag.* May, 1860, p. 426) bore, on one side, the arrows and crown, as above described, with the numeral 5 and OR, an ore being, as there stated, "an imaginary coin in Sweden."¹ This piece is inscribed MONETA NOVA CVPRE DALAREN. 16XLV, and bears the name Christiana, with the arms of Sweden crowned. It was suggested that on Jan. 9, 1646, certain Royalists under Lord Wentworth stationed at Bovey Tracy were surprised by the Parliamentarians and defeated; at that time, as is well known, some soldiers from the North of Europe were attached to the king's forces.

¹ An Ore is the hundredth part of a Riksdaler. See Mr. Yates' useful catalogue of current coins, International Ex-

hibition; published by Bell and Daldy, 1862.

Notices of Archaeological Publications.

ARCHITECTURAL HISTORY OF GLASTONBURY ABBEY. By the Rev. ROBERT WILLIS, M.A., F.R.S. Read at the Annual Meeting of the Archaeological Institute at Dorchester, Aug. 4, 1865. Cambridge: Deighton and Bell. London: Bell and Daldy, 1866.

THE Archæological world has often had occasion to thank Professor Willis for his series of architectural histories of our cathedrals and conventual churches.

This time the lot has fallen upon Glastonbury; of course we now all know what to expect from the learned Professor, and what not to expect. Thus any student who might be desirous of learning all about the doorways of St. Joseph's chapel in the Abbey under consideration, would be disappointed if he expected to find any notice either of the iconography, or the way of arranging the figures with regard to the place, or the effects of light and shade; but, on the other hand, the student, of architecture in a scientifically archæological point of view, will find knotty points as to dates of erection, rebuilding, &c., most cleverly and satisfactorily unravelled; for Professor Willis is not the man to view architecture as if it were subject to the same laws as geology, and to believe that the lowest part of a building must of necessity be the oldest. On the contrary, he subjects both the actual edifices (or rather their remains), as well as the statements of contemporary writers, to the strictest investigation, and produces results which not unfrequently upset the commonly received views. Thus it was generally believed, up to the time of Professor Willis's investigations at Glastonbury, that the crypt of the chapel of St. Joseph was at least contemporary with the parts above ground, and, in the words of an eminent antiquary, "naturally the most antient part, but differs from the superstructure only so much as the subterranean part usually does from the upper part." (p. 61.)

Now the present book tells us that so far from this being the case, the crypt is clearly, from its architectural features, of fifteenth century work, and not only of fifteenth century work, but of two distinct periods. It was probably constructed to afford increased means of burial in consequence, as the author tells us, of the revival of the tradition of St. Joseph in the 14th century.

The history of the chapel itself may be told in a few words. In the year A. D. 63, according to the legends, St. Philip sent twelve of his disciples, with Joseph of Arimathea at their head, to convert the Britons. They settled at Glastonbury, and, in accordance with an admonition of the archangel St. Gabriel, erected a chapel of wattled rods in honour of the Virgin. It is this chapel that our author proves to have occupied the site of that now so well known as that dedicated to St. Joseph. In the old accounts it is known as the "vetusta ecclesia." In the eighth century there were no less than four separate chapels or churches on the spot, one of which, the old wicker church, stood at the west of all the others, and the "major ecclesia"

of King Ina at the east of all the others, the whole forming a group of churches such as we find in Ireland or in Greece.

At the time of the Conquest these churches had got reduced to two, viz., the *ecclesia vetusta* and the *ecclesia major*. The Normans, as usual, re-erected the latter, which was burnt, together with the *ecclesia vetusta*, in 1184. It was then rebuilt at the expense of the king, the abbey being at that time in his hands.

Chapter II. of the work under consideration is occupied with the proofs of the "identity of St. Joseph's chapel with the site of the wicker church and the lady chapel of the abbey," and gives us the authority for the legend of St. Joseph being buried at Glastonbury, which legend, it appears, was very coldly received by William of Malmesbury, who only mentions St. Joseph's name but once, and even then in a very slight manner. However, in the middle of the fourteenth century, the belief in his burial in the cemetery appears to have been revived, and John of Glaston, at the beginning of the fifteenth century, spares no pains to establish it. Our author has, however, forgotten to remark the very important place which St. Joseph of Arimathea occupies in the romance of the St. Grael—a romance which M. Villemarqué has traced to a Pagan source, and which, with others of the same family, were revived and Christianised in after centuries.

Chapter III. is dedicated to the documentary history of the great church from 1182 down to the suppression of the monastery; and Chapter IV. to "its structural history and description." In Chapter V. the description and history of St. Joseph's Chapel is resumed, and a most minute account is given—firstly, of the structural peculiarities, and, secondly, of the various changes which it underwent subsequent to its erection in 1184. As the old chroniclers tell us, it was built of squared stones of the most beautiful work, and no possible ornament omitted. The Professor remarks that no zigzag work occurs in the contemporary round church of the Temple in London, and the mouldings of the latter also belong to a school of masons different from that of Glastonbury. The difference of contemporary schools of architecture in England is a most curious subject, and has hitherto been but little investigated. It is much to be hoped that some competent architectural antiquary will take it up and work it out thoroughly.

At page 50 we have an elaborate description of the common difficulty, which occurs to every architect when planning a building with vaulting inside and buttresses outside. The architect of St. Joseph's Chapel got over it by sacrificing the outside bays. In the interior elevation all the severies are equal, and a window comes in the middle of each; but if we look on the plan, we shall find that the vaulting shafts do not agree with the centres of the buttresses, and that the windows come most irregularly in the spaces between them. In process of time it was considered desirable to connect the two churches, which were only 50 feet apart, by means of a galilee porch, and accordingly we find a very beautiful Early English piece of work erected for that purpose. It had two doors, N. and S., and a flight of steps up to the entrance of the church. As it rendered the E. windows of the chapel useless, an arch was cut in the E. wall, and a dossel placed between its jambs. The chapel thus received an increase of light from the galilee. In plate 7 a section of this part of the building is given, showing how the Early English masons used up the old arcade shafts of the east end to adorn the jambs of the arch.

In Chapter VII. the history of the chapel is still further carried out and illustrated by the changes which took place in the galilee at Durham. In the fifteenth century it was considered desirable to extend the Lady Chapel. The dossal was, therefore, removed from the eastermost portion of the Norman chapel, and placed very near the western door of the church, that is, at the eastern end of the Early English galilee.

The crypt under the galilee was probably built first of all, and that under the chapel when the Virgin's altar was finally transported to the eastern end.

The last chapter is occupied with a short history of the monastic buildings, and with it finishes the last contribution of Professor Willis to the architectural history of our mediæval buildings. As a history, it must be pronounced most clear and exhaustive; it is also most useful reading to the practical architect, as showing how our ancestors grappled, more or less successfully, with the same difficulties which present themselves to us every day. But anyone who has really seen the so-called chapel of St. Joseph at Glastonbury, can scarcely help desiring a companion book illustrating the art, as well as the science, displayed by the twelfth century architect. For there are quite as many lessons to be learnt from the art as from the history.

It only remains to remark, that there are seven lithographed plates from the Professor's own drawings, &c., which admirably assist the text.

W. B.

A HANDBOOK OF ILLUMINATIONS, AS PRACTISED DURING THE MIDDLE AGES, with a Description of the Metals, Pigments, and Processes employed by the Artists at Different Periods. By HENRY SHAW, F.R.S. Bell and Daldy.

THE author and artist of this admirably illustrated book is known throughout the world for his skill in reproducing the arts of the illuminator and calligrapher as they were in vogue during the Middle Ages. This book is, so far as its proper subject extends, the most valuable result of his labours either of the literary or the artistic sort; like many other works of men capable in their peculiar walks of study, it far exceeds the promises of its title-page as quoted above, and deals not only with the minor decorative art in question during its mediæval stages, but opens with the ninth century, which is, to say the least of it, full early, and closes with the history of a state of the illuminator's art, which is absolutely that of the *renaissance* in design at its best—that is, ere mere imitation of common objects in a pictorial, laborious manner took the place that had been erst in possession of one of the most beautiful, thoroughly logical and consistent minor arts. Briefly to describe the contents of this book, let us add that its illustrations—to which the text is wisely made subordinate—begin with subjects of the ninth century, and continue, sometimes with one specimen from each age, sometimes with two of the same, until the sixteenth century is reached, and the craft of the illuminator, as understood in mediæval times, is shown to be dying out in the luxurious modes of that greater art of painting which, even then, was itself decaying rapidly. That Mr. Shaw had no occasion to follow his subject beyond this period will be readily understood by those who remember the “illuminations” which came into vogue in less than half a century after the latest specimen now before us was produced, and were really pictures illustrative of the texts to which they were attached, or

what we are accustomed to style "illustrations"—not caligraphic, decorative enrichments that grew out of its lettering.

When the period had arrived with which Mr. Shaw's labours terminate, the arts, major and minor, might be said to be flourishing, but they certainly were not in a progressive state. As during the Gothic ages all these fields of human genius had been cultivated for the sake of architecture, and to that end painting, sculpture and the rest were made her servants, so, in turn principally, as we believe, by means of the abuse of the art of the glass-stainer, architecture and sculpture were made subservient to painting, and cunningly placed mouldings and quaint bosses gave way to blank spaces that were destined to be filled with pictures, and ere long, as decay advanced, with long processions, and preposterously painted gods and goddesses, so that at last, by means of Verrio and Laguerre, soaring vaults defied at once perspective and probability, and the pictorial and decorative arts perished together.

The history of the rise, perfection, and decline, before the fall of every art, is to be read in Mr. Shaw's book, or what is better, traced in the exquisite copies he has produced from the masterpieces of illumination.

At first we have a beautiful, strictly conventionalised letter O from Cottonian MS. Galba A, xviii., purely a work of the caligrapher, not of the painter, having for its primary characteristic and fundamental condition perfect clearness of form, *i.e.*, legibility. This was a quality to be desired because the first business of every letter is to get itself read. The letter itself is not unmarked by Byzantine influences, and is a gem of art. The same Byzantine effect appears, but, so to say, acting in a different direction, in the Hiberno-Saxon letter S, which is here copied from the unsurpassed "Durham Book," and displays that apparently inexhaustible love of the serpent as an object for representation, or, more truly to write, as an exponent for those ineffably delicate curved lines which unfailingly characterise the productions of the marvellous schools of which the Book of Kells is the *magnum opus*. Decorated caligraphy was still the rule with the illuminators of the tenth century, and is superbly displayed here by means of a full-page facsimile—in all but colour—from the famous Egerton MS. No. 608, now in the British Museum. This example is among the most fortunate transcripts in the book before us, one of the principal objects of which is to show how happily the process of wood-engraving can be employed in wise hands to reproduce, if not the tints, at least the tones and forms of the several schools with which it deals. Mr. Shaw's success and that of his assistants in this respect approaches the marvellous. In exercising his peculiar skill, and dilating, as he does, upon its advantages, he proves satisfactorily the power of wood-engraving to render what is technically called "colour" by thoughtfully dealing with black and white. It is true that this faculty of the wood-engraver's art was always held to be one of its greatest recommendations. In fact the art of the chiaroscuroist is proper to the wood-engraver, as well as to the worker on copper. This art is exactly that which, in a limited and mechanical manner, Mr. Shaw has now fortunately and, as he seems to believe, for the first time employed. Within these limits his success is extraordinary, but he does not, to our minds, justify that broader aim of others who propose to supersede the efforts of engravers on metal when dealing with the infinitely more difficult subjects that are supplied by representations, as in pictures of the human figure and landscapes, of forms which require what is technically

called "modelling" to become perfectly satisfactory to artistic eyes. The artists who have assisted Mr. Shaw are Mrs. Gould, Miss Byfield, Messrs. R. B. Utting, J. O. Jewitt, and J. S. Williams.

Further progress with the art of illumination is exemplified by specimens of eleventh century work from "Canute's Gospels," in the British Museum, a Bible (Harl. 2803), the Lindesey Psalter, now belonging to the Society of Antiquaries, and a fine illustration of the skill of the thirteenth century; a letter B, that is surrounded by a border with miniatures in roundels, enriched by intricate interplacements, and set in a mosaic-like ground.

Mr. Shaw gives ample consideration to one of the most beautiful examples of its kind, *i. e.*, the famous Tenison Psalter, which comprises sixteen pages of exquisite workmanship, and display apparently inexhaustible invention. Of these the book before us now contains a copy—without colours—from the first page, which is in itself probably the most happy specimen that could have been found of illumination during that golden age of English art, the reign of Edward the First. Fine as it is, this example is not without a few signs of the growth of luxury among our ancestors, and, with all its beauty, errs a little in excess of playfulness and exuberance of invention, such as could not be restrained even by the solemnity of the office of decorating the Psalms themselves. Of all things a book of devotion should be severe, and, if needful, even melancholy in its decorations. Severity of style does not imply lack of pathos or of cheerfulness, still less of incidental illustration and wealthy ornaments such as this book displays. Nevertheless, lovely as are the paintings and illuminations of this famous MS., it is to us so far unfortunate that loveliness is its chief characteristic. It is as if the artist treated the Psalms as a collection of secular poems, and the result is the production of what is rather the finest "gift book" that ever existed than the aptest inclosure for the songs of David. This was in all probability a gift book from royal hands. Its supposed history is curious, being that the volume was wrought in that famous monastery of Blackfriars, London, which was founded by Edward the First and his queen Eleanor, a convent which shared with Lincoln Minster and Westminster the relics of the queen and the young prince Alphonso. It was begun as a marriage present for that Alphonso, after his betrothal to the daughter of Florent, Count of Holland, in 1284. This young prince was employed by his father to deposit, in his name, upon the shrine of Edward the Confessor, the gold ornaments of Llewellyn of Wales: to him also has been ascribed that very curious piece of the inlaid work of a tomb-slab which was not many years since accidentally discovered in Westminster Abbey, between the head of the Confessor's shrine and the foot of the monument of Henry V. He died almost immediately after his betrothal, and, as it is alleged, this fact accounts for the work in question never having received more than eight pages by the able hand which produced such exquisite decorations as those before referred to. Inferior hands completed the book, and it passed not long after into the possession of the princess Elizabeth, who married Humphrey de Bohun. The marginal illustrations of this ineffably lovely work, of which Mr. Shaw engraves that which is, so far as design goes, probably the finest, are simply perfect. There is one peculiarly gratifying point in the history of this gem of illumination: this is, that the ornaments and pictures with which it is so profusely illustrated are, beyond all reasonable doubt, the work of an English hand. Upon this over-refinement followed, as might be expected,

a stage of art in illumination which admitted in no small degree the practice of the painter proper, and dealt with marginal decoration with miniatures and pictures; as this state of things progressed it opened the door to a greater proportion of pictorial matter, and expelled a corresponding amount of that which was purely decorative, so that ere the end came, the crafts of the illuminator and calligrapher had merged into that of the miniaturist. Whether this change was an improvement or not is a question for critics.

We have not space to follow Mr. Shaw through all the mass of interesting facts and still more precious pictures which he has reproduced here. Suffice it that he has compiled with industry an account of the art to which he refers, which, although it does not take a very large scope or exhibit considerable critical knowledge or acumen, is yet marked by good taste and the results of that cultivated judgment in respect to illuminations which has grown up during a long and laborious course of study. The author judges of his materials rather as the historian of a peculiar class of paintings than an artist. It may be that this accounts for a certain limitation of aim that is apparent in his remarks, no less than for his neglecting to pronounce critically upon the respective values of the numerous examples that are before us. This has yet to be done in English. The text may most correctly be described as a series of running comments on some of the most exquisite examples of the kind to which it is devoted, chronologically arranged, with analyses of the separate styles as they follow one another, and is therefore truly the thing it is described to be, *i. e.*, a "handbook" of the art of illumination, not an essay or history of the subject, and still less a critical account of the art in question. A very important addition to the text comes from the author's competent hands, and takes the shape of a continuous and elaborate account of the modes of practice in illumination during the Middle Ages, the pigments, metals, and other materials that were then or have since come into vogue; also, so far as it is possible to produce such a thing in completeness, a very carefully written and thorough-going account of the modes for using these materials.

ECCLESIASTICAL AND DOMESTIC ARCHITECTURE OF ENGLAND.

By FRANCIS T. DOLLMAN.

Mr. DOLLMAN announces a work on the Ecclesiastical Antiquities of London (40 plates), including St. Saviour's, Southwark; St. Bartholomew's, Smithfield; St. Helen's, with other examples. Also additional Illustrations of the Ancient Domestic Architecture of England (80 plates), in continuation of Mr. Dollman's work already published. It is requested that subscribers' names should be sent to the Author, 63, Gloucester Crescent, Regent's Park, N.W.

LITERATURE AND ITS PROFESSORS. London: Bell and Daldy, 1866.

THOUGH not coming under the head of Archaeological, and therefore not within the province of the reviewer, some readers of the ARCHÆOLOGICAL JOURNAL may be interested to learn that a work under this title has just been published by Mr. Thomas Purnell, late Secretary to the Institute.



The Mosque or Tomb of Sultan Kalaoun in Cairo.

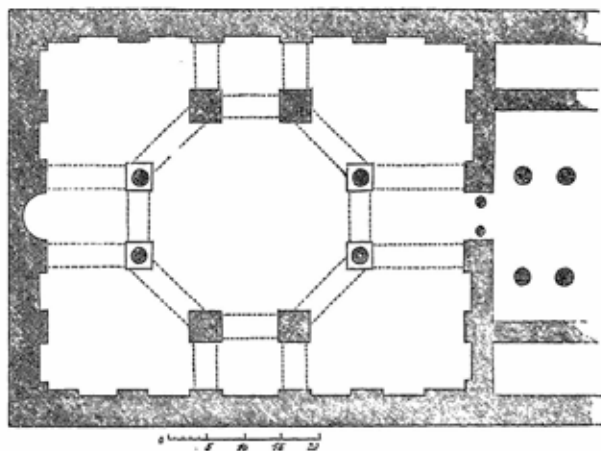
The Archaeological Journal.

DECEMBER, 1866.

REMARKS ON MEDIEVAL ARCHITECTURE IN THE EAST. Part II.

By the Rev. JOHN LOUIS PETIT, M.A., F.S.A.

THE mosque or tomb of Sultan Kalaoun in Cairo differs in construction from all others in that city. Its ground plan is a square of about 75 feet, internally. In the centre rises an octagon on arches supported by four massive square piers, and four columns, which are connected by arches with



Ground-plan, Mosque of Sultan Kalaoun, Cairo.

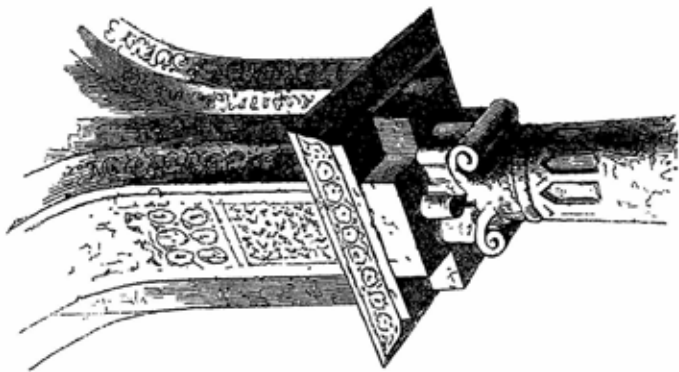
the sides of the building in such manner as to form a good system of abutment, the outer walls being sufficiently thick and lofty to maintain the equilibrium. Their thickness is about six feet; the roofing is of timber. As will be seen by the ground-plan, a nave or vestibule is attached to one

¹ Continued from p. 20, *ante*.

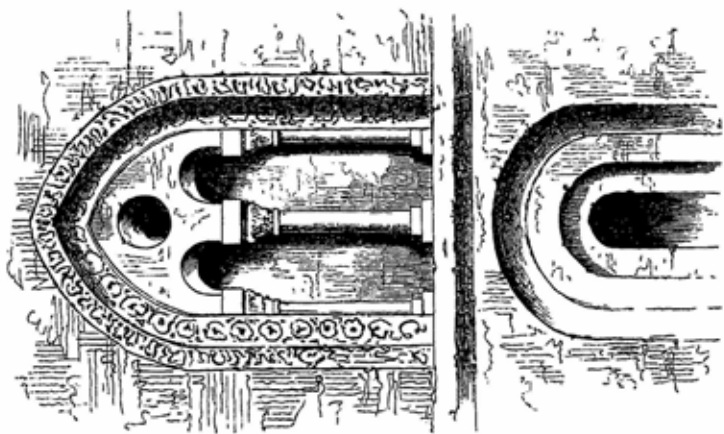
side, but it does not equal the main building in the height of its roof. A fine tower or minaret also joins it, which I have not given in my plan. The columns are, I think, of granite, or some very hard stone. The wide abacus on the top is of wood, and the springs of the arches are connected by beams of timber. When I say the springs of the arches, I mean the points where they rest on the piers and columns, for the real spring is much higher, the arches being stilted, and having a horse-shoe form. They are pointed, and have a wide soffit between bold hollows, all enriched with some kind of pattern, at once delicate and effective. The light comes through the windows of the octagon, but in the principal walls are blank windows of two round arches on a shaft with a circle above, and a pointed arch, much enriched, comprising the whole. The jamb of the comprising arch has a bold hollow. I have given a cut of one of these arches, showing where the ornament is applied, but with no attempt to make out its detail. I think we cannot fail to remark the great similarity between the Saracenic style, as exhibited in this building, and the Gothic of the same period (the latter part of the thirteenth century) in the south of Europe. A kind of bud-shaped capital, and a large bulbous convexity at the base of the shaft, seem to be distinctive Oriental features, and are found in Christian churches as well as mosques. They may possibly be derived from the ancient Egyptian architecture.

It is difficult to obtain such a view of the outside of this mosque as to show the peculiarity of its composition, though the front towards the street exhibits its style of architecture, and has some good windows. The street view that I have given just shows a small part of the octagon, the rest being concealed by the fine minaret or tower, a structure which might easily be taken for a Christian belfry. I have selected this point of view to enable the tourist to recognise the building while he passes through the streets. It is very near the Turkish bazaar, almost opposite to which is the narrow passage that leads to its entrance. My guide procured me admittance without difficulty, and I was allowed to remain as long as I pleased for the purpose of sketching and examining the building. My ground-plan was taken in a very rough manner, as I only measured the distances by stepping, but it is sufficient

MEDIAEVAL ARCHITECTURE IN THE EAST.



Mosque of the Sultan Kalaoun, Cairo.
Capital of column, central octagon.



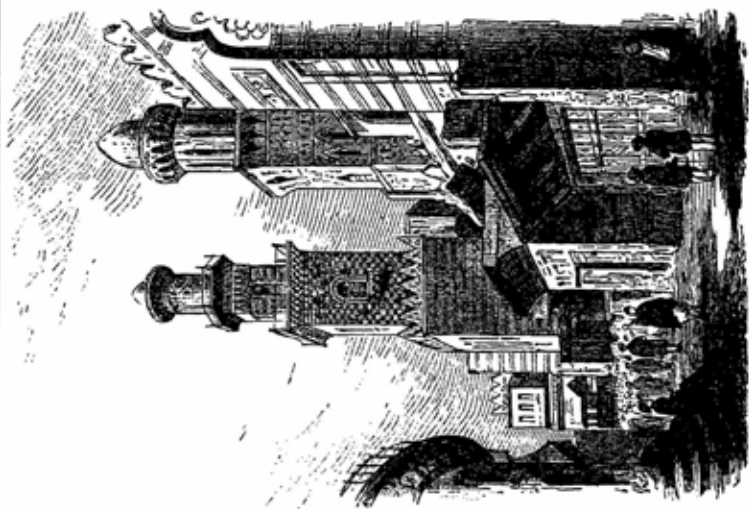
Mosque of the Sultan Kalaoun, Cairo.
Arch and blank window, principal walls.

to give an idea both of the arrangement and actual size. The space between the four square piers is closed in by screens, and contains the tomb. I do not know if this interesting mosque has met with the attention it deserves ; a series of illustrations would, I am sure, be valuable. I also give the only other view I could obtain, showing the central octagon ; it is taken from a court in which is a pool or bath used for ablutions ; the covering over this is seen in the sketch.

The date of this mosque is the end of the thirteenth century. Any one conversant with Gothic would be inclined to place it near the beginning of that century. But it is evident that we are not to look in the East for those rapid and decided changes of style which are characteristic of Western mediæval architecture ; indeed the style seems to have preserved its mediæval character to very modern times, and this not by imitations and attempted revivals, but by the steady and continued adherence to old forms and principles. The pointed arch is used in Syria up to the present day, I believe, just as it might have been in the middle ages, and without any incongruity. Jaffa gives one the idea of a town of the fourteenth or fifteenth century, but I suppose it has as much modern work in comparison with the ancient as many towns not remarkable for antiquity. At Beyrout an arcade of pointed arches on slender columns is the common feature, and, notwithstanding its mediæval air, appears to indicate the style of the day, as though it had remained unaltered for centuries. And the Christian conventual churches, which I have noticed as having been rebuilt, on the banks of the Nile, are in perfect keeping both with the old and modern work, retaining the mediæval character, as it were, naturally, and without choice or effort.

Yet, by the help of buildings whose dates are known, I believe it would be possible for a student of the mosque architecture of Cairo to form a reasonable conjecture as to the age of buildings with whose history he is not acquainted. There is a dome in the suburb north of Cairo to which, from the shafts at the edges of the jambs in the window arches, I should give a date corresponding with our Early English, and rather earlier than the Kalaoun. I do not know the name nor the history of the mosque ; it appears neglected, if not disused. The beautiful mosque of Sultan Hassan is known to belong to the fourteenth century ; and though

MEDIEVAL ARCHITECTURE IN THE EAST.

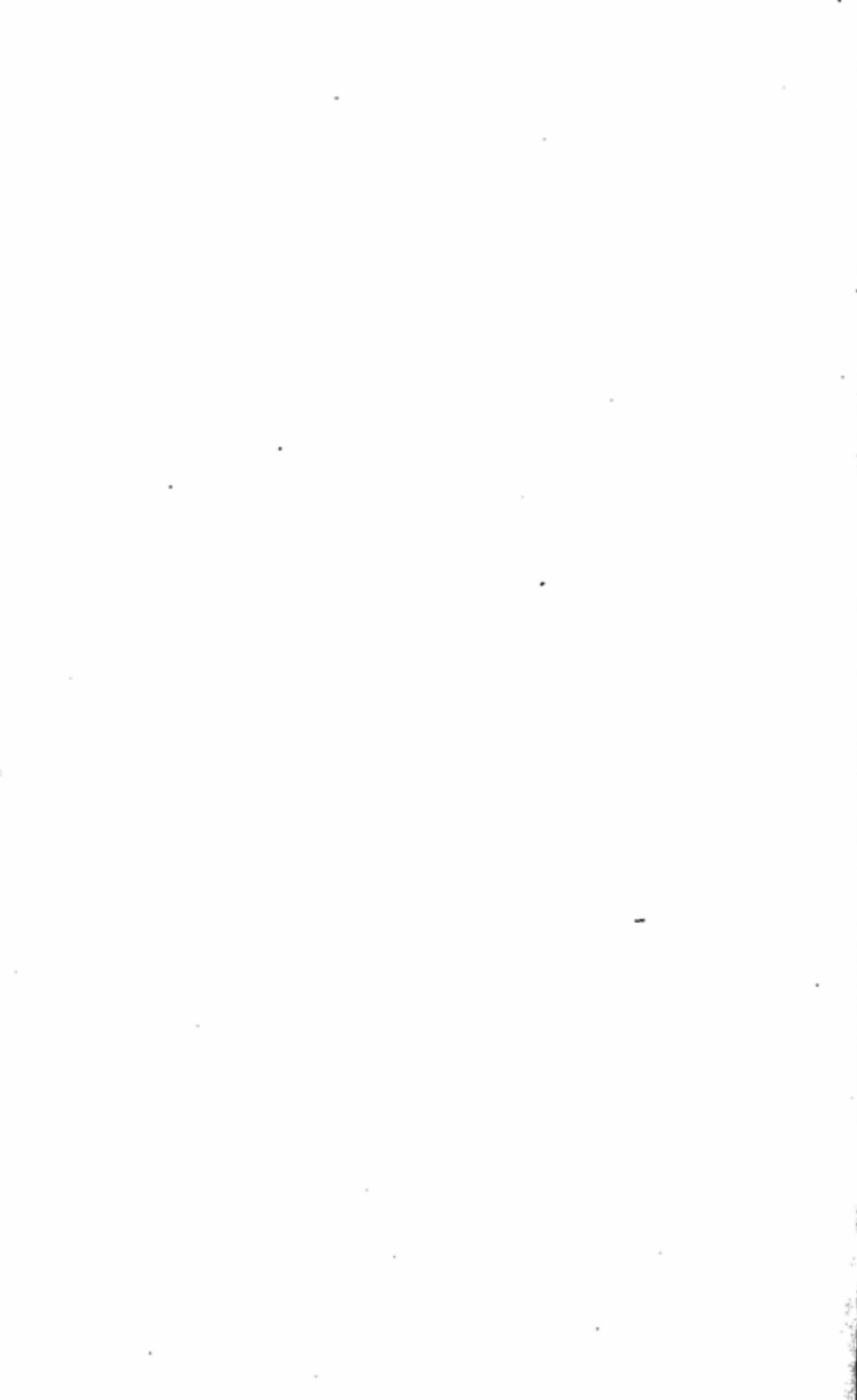


View taken from the Street.



View from an adjoining Court.

The Mosque or Tomb of the Sultan Kalsoun, Cairo.



there is hardly a portion of detail analogous to that of our Decorated, yet its combination of grandeur and refined



Dome of a Mosque in the suburb of Cairo.

elegance and delicacy of work points out its affinity to that phase of mediæval architecture. Mr. Fergusson has described this mosque in his handbook, and given a plan and



Mosque of Sultan Hassan, Cairo.

section. The cut I give shows its general outline; and part of a mosque, apparently of nearly the same date, is introduced in the sketch. If I had extended my picture a little

farther to the right, I should have brought in another mosque of the same character as the last, with a beautifully enriched dome, and a minaret crowned with two cupolas. The cornice of the mosque of Sultan Hassan is almost unique; it is wide, and of a very bold projection, and enriched with minute and delicate arches on brackets or corbels. The minaret is octagonal, but the compartment above the roof is square; below this, however, it becomes polygonal, rising from the ground in this form, thus differing from the usual plan. The supports of the galleries, and indeed all the ornaments of both the large and the small minaret, are very Gothic in their character, more so than in those to which I should assign a later date, where the pattern or system of panelling is formed in great measure of bands crossing one over another diagonally. I will not, however, say that this method of ornament is not used in earlier work. I have not made any sketches of panelling, but photographs which show it are easily to be obtained. I believe the style which I look upon as corresponding with our Decorated must have lasted pretty nearly to the end of the fifteenth century, and after this a style came on, reminding us (though still without much actual resemblance) of Late Perpendicular. The arches have a sharper curve at the haunch, and the lines are more nearly straight as they approach the point. The trefoil-headed doorway still remains. The dome is often boldly ribbed, is more stilted, and has a less elegant outline. The round or slightly pointed arch is more rare, and I think in Cairo the horse-shoe arch is not much used in late work. We find good Mahometan work down to a very modern date; indeed I suppose the style could hardly now be called extinct.

In Constantinople there are of course no mosques (built as such) earlier than about the middle of the fifteenth century; but two centuries after that, or even later, a good style prevailed, independent of the classical element which was introduced into the more modern buildings. The minaret in Constantinople is a tall slender turret, round or polygonal in its horizontal section, having one or more projecting galleries, and finished with a spire. The larger mosques have several minarets; the smaller, only a single one. They are remarkably elegant, and from their great number give the city a very striking appearance. Indeed no European city, how-

ever rich in fine buildings, has so picturesque and varied an outline. The nature of its position, perhaps, gives it an advantage in that respect over Cairo, but the latter abounds in objects of greater archæological and architectural interest, and of more intrinsic beauty. The large minaret of Sultan Hassan is a fine specimen of one kind of minaret that prevails in Cairo, that of an octagonal form. The minaret of Sultan Kalaoun is an example of the square form, which is not uncommon. The outline of some of these is so like that of many Gothic towers, that they would not be out of place if attached to a Christian church. The minarets that are round and finished with a spire, like those of Constantinople, seem late. The usual finish is a bulb-shaped cupola.

At Ramleh, between Jaffa and Jerusalem, is a minaret, which at first sight would be taken for a Christian tower of the thirteenth century. It is only on looking carefully at its details

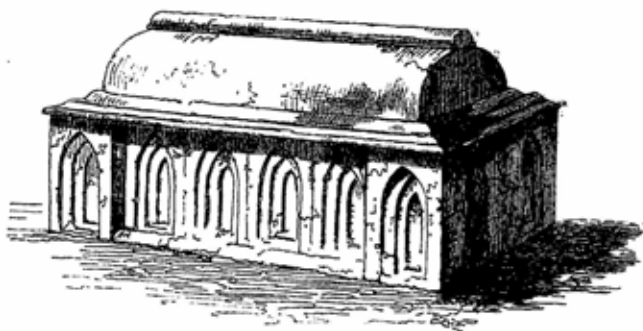


Minaret at Ramleh.

that we see its true origin. It has, like our Gothic church towers, a pair of buttresses at each angle, from which, however, the upper stages rise free. These have each a triplet of pointed arches, the lower one on shafts, very Early English in character, but the bases show the Saracenic element.

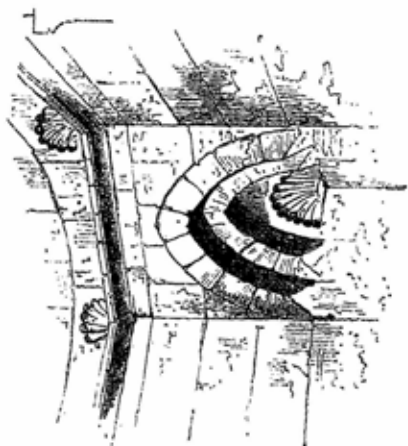
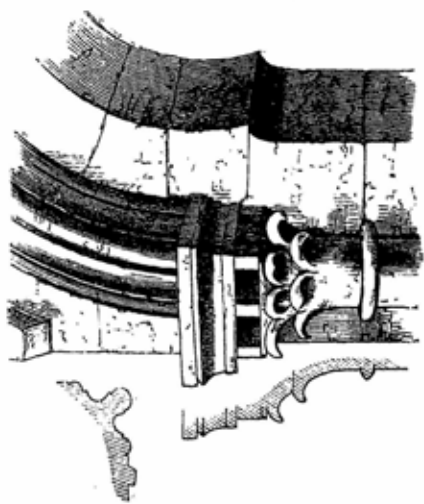
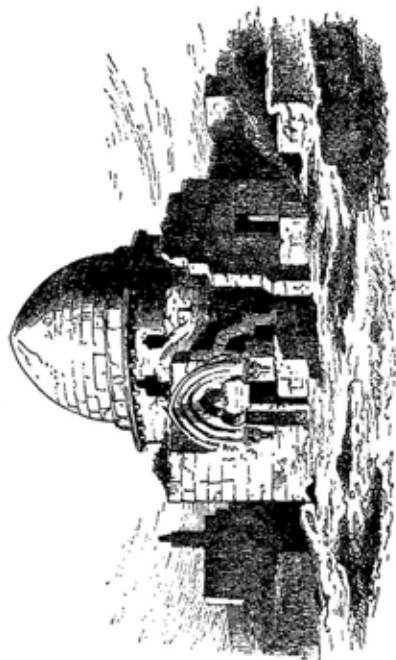
There is an inner tower which rises above the outer wall, and gives room for a staircase. This arrangement is not unknown in Europe; we see it in S. Mark's, which, however, may be considered Eastern in its character. A church near Ravenna (S. Maria ad Portum) has a Romanesque tower of this description, the inner structure rising considerably above the outer one. At Ramleh, the upper part of the internal turret is ruined, so that we cannot tell what was the finish. Over the door is an Arabic inscription. There are some remains adjoining, and extensive crypts of plain pointed work, but nothing to indicate a mosque. I suppose the date is in some part of the thirteenth century, but we must allow for the continuance of styles without material change.

In the cemetery near the Jaffa Gate of Jerusalem is a tomb of the same type with that we have mentioned as pervading the whole of the East, but valuable on account of the beauty of its composition, the care displayed in its workmanship, and the certainty of its date. It is simply a square substructure supporting a circular dome; the material is stone, and the masonry is excellent. It has a door of decidedly Gothic character, and with mouldings which in Europe would belong to the thirteenth century, attributable without doubt to the influence of the Crusaders. The other sides have small, plain, square-headed openings. The pendentives are of the Romanesque kind, consisting of a pointed arch of two square orders. In them, and at the points of change



from the octagonal to the circular form; are escallop shells, having the character rather of Cinque-cento than Gothic work. The tomb in the centre of the building is oblong, with sides having a panelling of blank pointed arches and a coved

MEDIAEVAL ARCHITECTURE IN THE EAST.



Tomb in the Cemetery near the Jaffa Gate, Jerusalem.



top. The doorway consists of a pointed arch, with bold early Gothic mouldings, resting on short shafts which are supported by brackets. The capital is much what we see in early French Gothic, and the abacus is square. Within this arch is a trefoil arch of more Oriental character, but reminding one of the foliated arches we meet with in parts of France, and of which La Souterraine and Le Dorat present fine examples. The actual door is square-headed, at least has a horizontal transom. A flat arch appears above, cut in a lintel of a single stone, marked to represent keyed voussoirs. In the head of the trefoil arch is an Arabic inscription, of which I had a rubbing taken, and the translation given me contained the date 688 A.H., which corresponds with 1310 A.D. The details of which I have spoken, which are extremely pure, are such as we should naturally have assigned to an earlier date, by more than half a century.



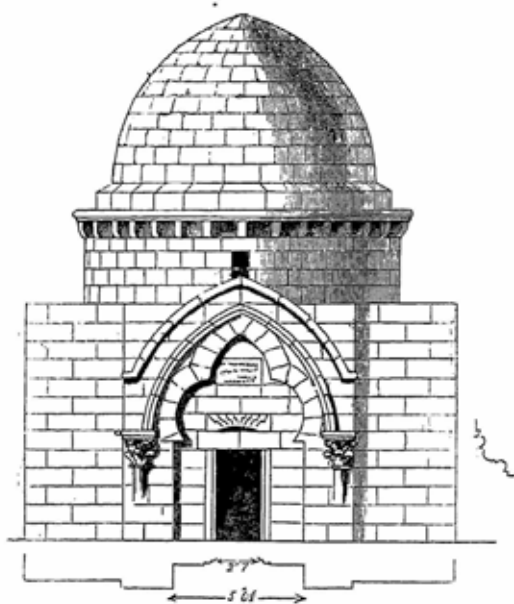
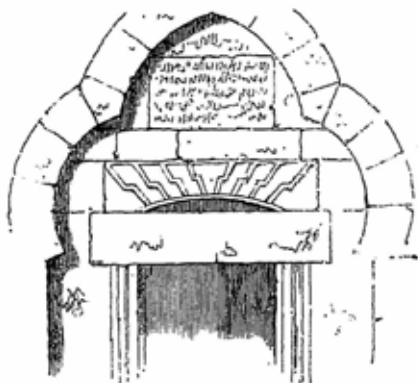
At no great distance from this is another tomb of the same type, larger in dimensions, but less elegant. Here the pendentives have pointed arches of three square orders. The sides of the building have in the interior deep blank arches, pointed, of two square orders; and on the exterior a flat



Tomb near Jerusalem.

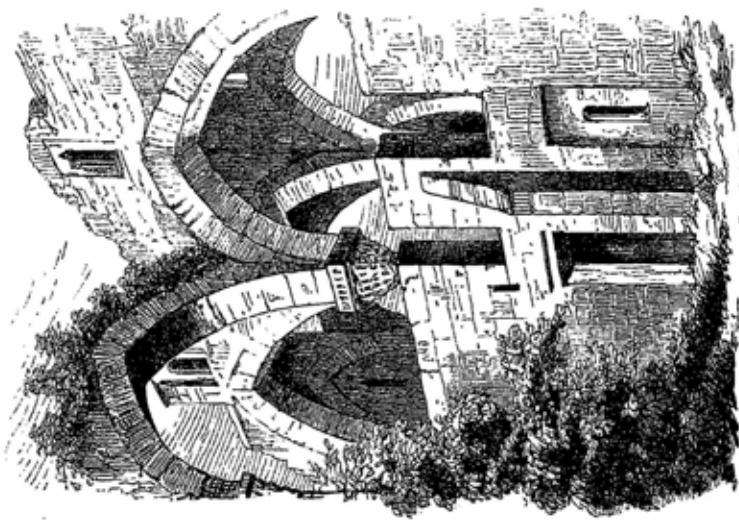
buttress on each face. Over each angle of the octagon internally, at the spring of the circular dome, is a small trefoil arch, giving that part a more Gothic air than the scallop

MEDIEVAL ARCHITECTURE IN THE EAST.

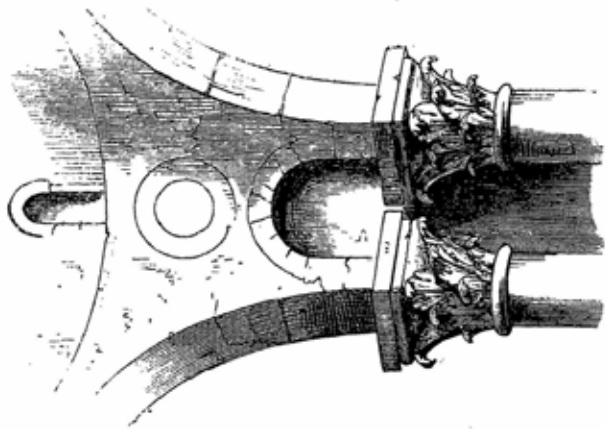


Tomb in the Cemetery, near the Jaffa Gate, Jerusalem.

MEDIEVAL ARCHITECTURE IN THE EAST.



Mosque of Caliph Walid, Damascus.



Romanesque Pendentive, in the Akseh, Jerusalem.

of the other tomb. In the doorway are Gothic mouldings, but the Saracenic capital shows itself. It will be seen that the construction of this tomb is not unlike that of the small Byzantine churches, with solid masses at their angles. And by cutting away some of the upper part of the thick walls, a similar outline might be obtained.

I had not time to sketch any details of the mosque of Omar, called also the Dome of the Rock, or of the Akseh, in Jerusalem, and it was unfortunately a dark rainy morning when I visited them. I can only say that the effect was very impressive, and heightened by painted glass, rich and harmonious in effect, but only in patterns. As far as I could make out, the round arch prevails in the mosque of Omar; but it was really too dark for me to note any detail, though this very gloom increased the solemnity of the effect. The Akseh is lighter, the quantity of deep-coloured glass not being quite so great. In this the arches are pointed, and much stilted. Both buildings have a very Christian character, but at that early date the two styles were nearly identical. From the plan given in Mr. Fergusson's Handbook I do not see that there is any semicircular apse; indeed I was struck with the arrangement of the part answering to the choir or chancel, which is perfectly flat. The dome, a small circular one, is supported by four piers, each of which has engaged columns of a classical proportion, with Corinthianising capitals, and square abaci, forming a re-entering right angle, over which is a small round arch, as of a Romanesque pendentive, but above is the concave surface of a Byzantine pendentive. Mr. Fergusson, in his chronological memoranda heading the chapter, gives the date of the Akseh, 691; that of Caliph Walid's mosque at Damascus, 705; and the Tayloon mosque at Cairo, 876. In the last a Mahometan style seems to be fairly developing itself; the other two present rather a Christian aspect, though there may be points which lead us to admit that they were from the first genuine mosques.

I was more fortunate at Damascus, for the mosque, being under repair, was more accessible, and the only impediment to my sketching with perfect freedom was the occasional fall of pieces of timber. As far as I could make out, not much mischief is meditated in the way of restoration; I hope the authorities will be content with the repair of the roof, a wooden one of considerable pitch, covered with lead. This

is a very puzzling structure. There is so much in the general arrangement that does not conform with our ideas of a Christian church, and so decided indications of Mahometan work in that part which is most Christian and least Mahometan in its composition, namely, the transept, that we can hardly come to any other conclusion than that the building, as it now stands, is entirely Mahometan. The enriched cornice inserted in the south wall, of late Roman date, having a Christian inscription in Greek, and some other similar remains, only prove that the mosque occupies the site of an older Christian church. It is very probable also that columns and other materials of the old church may have been used, and it may not be impossible that some of the columns still remain *in situ*. The building stands pretty well east and west, and has a nave, with north and south aisle, all of the



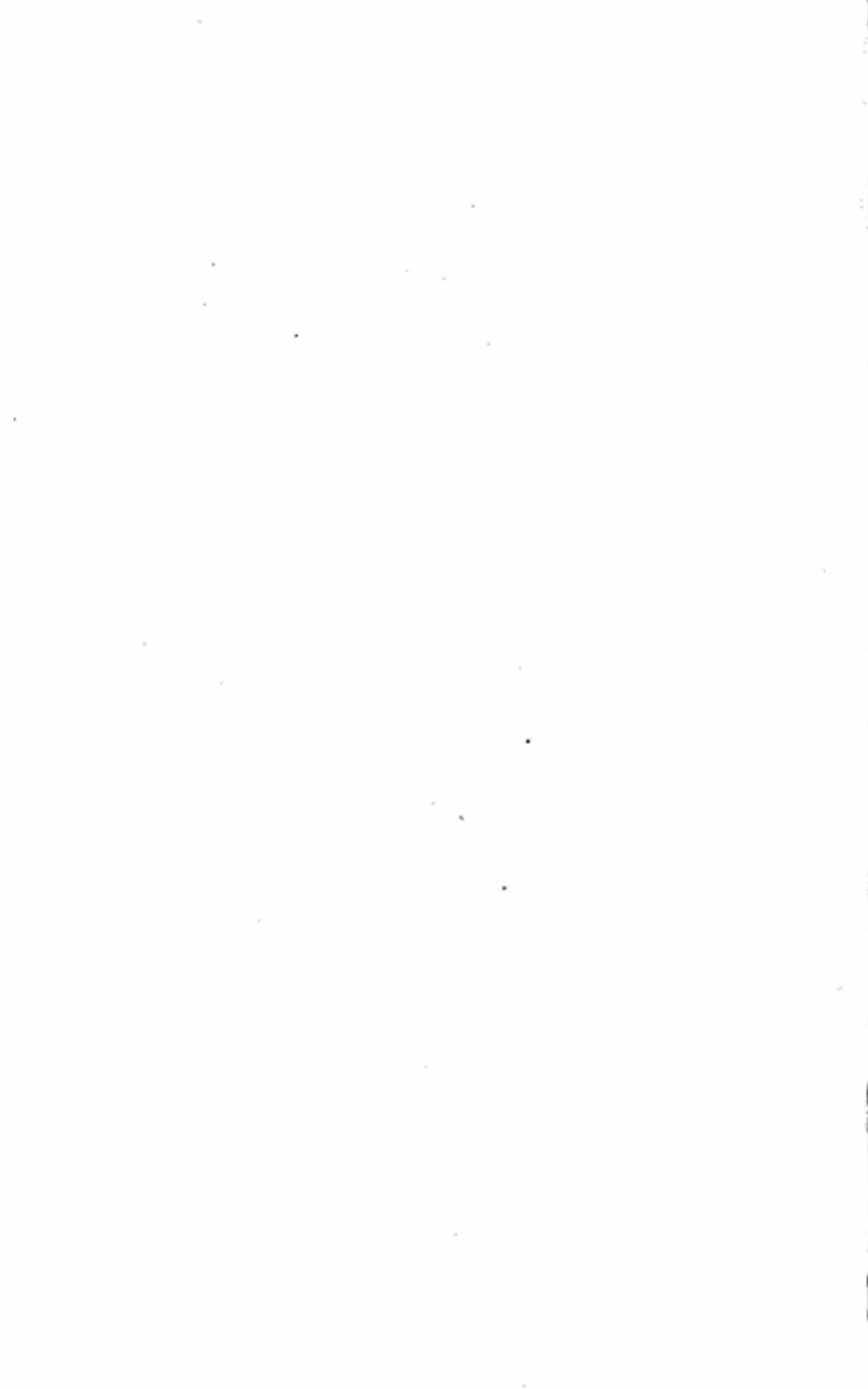
Great Mosque at Damascus.

same width and height. There are eleven bays or arches in each arcade, on pillars of a classical shape, with Corinthianising capital, and an abacus in the form of an inverted trun-

MEDIEVAL ARCHITECTURE IN THE EAST.



Late Roman Cornice, South Wall of the Mosque of Caliph Walid, Damascus. From a Drawing by Miss Petit.



cated pyramid, like those at Ravenna. The arches are slightly pointed and horse-shoe, of one square order ; above is a range of small round-headed arches, about double the number of the pier arches below. Those of the central aisle are entirely within the church ; those on the outer walls of the aisles form windows. The transept is higher than the rest of the body, and reaches to the aisle walls, so as not to appear in the ground-plan. Over the intersection is a dome on an octagonal drum, rising little above the present transept roof, and having its sides pierced with small couplets of round-headed windows of rather a horse-shoe form ; the piers below the dome are square and massive, and the arches pointed and horse-shoe. The pendentives of the dome are Romanesque. The part eastward of the transept is equal and similar to that westward, so that the north side, which forms a side of the large open court, is a symmetrical front. The entrance is through the transept, which is enriched externally with lofty arches, round-headed or nearly so, with much of the Byzantine character. The open court is of much the same character as the mosque itself, but probably later. In it is a small building, which exhibits externally some rich Mosaic work. Possibly there may be remains of



this description from which the date and original destination of the building might be inferred.

The south side, up to the bottom of the clerestory win-

dows, is hidden by houses and bazaars, but their flat roofs are accessible without difficulty, and the sketcher may work undisturbed. I rather studied the masonry, which is good, and of pretty large stones, to try if I could make out any breaks of design. There certainly are some changes in the masonry, but they did not lead me to any definite conclusion. The south transept has a low Roman pediment, behind which rises the high pitched roof, covered with lead. The front has tiers of round-headed windows, five in the upper stage and three in the lower one, which occupy a line rather higher than the clerestory. The octagon under the dome is of smaller stones.

The general view I have taken is from the wall of the castle, to which, with the help of my guide, I easily obtained access. It includes the three minarets and the outer wall of the court. The other view is the interior of the north aisle of the nave, which, being unroofed, shows part of the transept and dome.

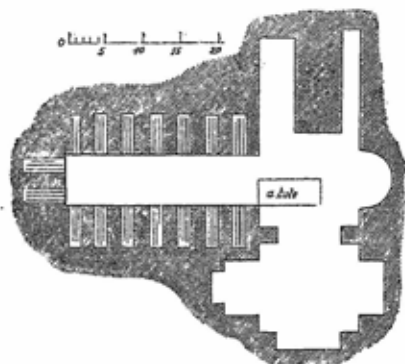
On the outskirts of the city are some tombs of the same type as those I have already mentioned. In some of these an octagon and a polygon of sixteen sides intervene between the dome itself and its square or rectangular substructure; others have two equal domes. On the hill from which that marvellous view, obtained by taking the rough horse-track from the beaten road, presents itself, is a tomb with four open pointed arches, above which is an octagon and dome. Its character is almost as Gothic as those near Jerusalem, of which I have spoken.

Though it does not strictly belong to my subject, I give a cut of the little circular temple at Baalbec (see the next page). I do not know that I should quite call it a gem, the arrangement of the cornice being somewhat too fanciful; still it is a pretty thing, and purer in detail than much of the work connected with the larger temples.

At Ephesus is a mosque, now disused and unroofed, which has two domes contiguous to each other, supported by the central arches of a building divided longitudinally by an arcade on columns. The arches, as well as the windows, are pointed; I did not make out any signs of great antiquity.

Before concluding my remarks, I may notice a subterranean church at Alexandria, cleared out, I believe within the last few years; and also some excavations called the

MEDIAEVAL ARCHITECTURE IN THE EAST.



Subterranean Church, near Pompey's Pillar, Alexandria.

catacombs, no doubt the work of early Christians. The church is cut out in a rock of not very hard or close texture, at no great distance from Pompey's Pillar. The entrance is by a flight of steps, at the bottom of which we find, on our left hand, a small semicircular apse with a kind of bench ;



Circular Temple at Baalbec.

on our right a nave cut in the rock, its roof arched, and its sides pierced with square-headed cells, evidently for the purposes of burial. Similar recesses are also cut in the end. In front is a recess forming a south transept, from which, also, smaller recesses branch out. The part corresponding with the central tower is open to the sky, preserving its square form throughout. There is no trace of architectural character which could give the slightest hint of a date. The painting in the apse is sufficiently preserved to show that its subject is the miracle of the loaves. There are also figures on some parts of the wall, or vertical surface of the rock. The written characters are so rough that I at first thought they must have been scribbled by Greek sailors, but on examining them, I saw no reason to suppose they were

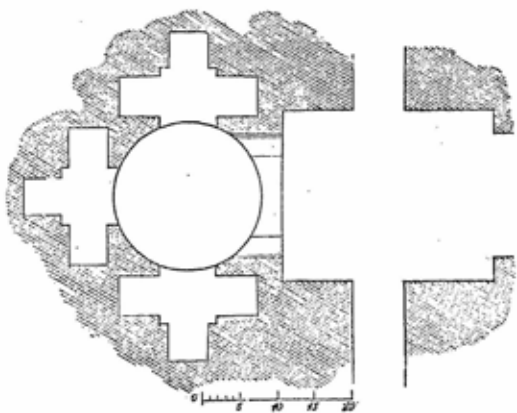
not original, and the inscriptions referred to the persons and incidents of the picture. In the central area, near what we may call the south-west pier of the intersection, is a hole sunk in the floor, about the size, shape and depth of an ordinary grave. The sketch and plan may give an idea of this underground church.

The catacombs, if I am right in so calling them, are also outside the town, among some of the rocks which form the sea coast. These are evidently of late Roman work, and are not without architectural character. After passing through an area, entered by a low opening and supported by square plain piers, and partly open upward to the sky, we come to a square-headed entrance, covered by a low pediment, the piers of which, if they may be so called, do not reach the ground, as seen in the front view. This leads into a circular space, with a domical roof, and having three recesses, corresponding in position to a chancel and a pair of transepts. These recesses are also cruciform, and in all probability have been tombs. The workmanship is clean and good; and the architectural ornaments, few and simple as they are, show some care in their execution. My sketch and plan will, I hope, in some measure, explain my very imperfect description.

I have said nothing about the Christian Gothic buildings in and round Jerusalem, which owe their origin rather to European than Oriental art. The remains of a church at Lydda; a church at Kuryet-el-Eneb (Kirjath-jearim); much of the church of the Holy Sepulchre in Jerusalem; the convent of S. Ann, near S. Stephen's Gate; a room in the building occupying the site, it is supposed, of David's tomb, and other edifices, are clearly of European character, with just as much Orientalism as appears in mediæval buildings of Sicily, and, perhaps, Spain. Some of the convents near Jerusalem may be more decidedly Oriental. Their churches are so incorporated with the conventual buildings, that little or nothing of them appears externally but the small central dome. Internally they are cruciform, have arches of one square order, pointed, with but little architectural ornament, painting being the chief enrichment. The light comes principally from the dome.

My remarks have, as I have said, been the result of very cursory and limited observations. But what little I have

MEDIEVAL ARCHITECTURE IN THE EAST.

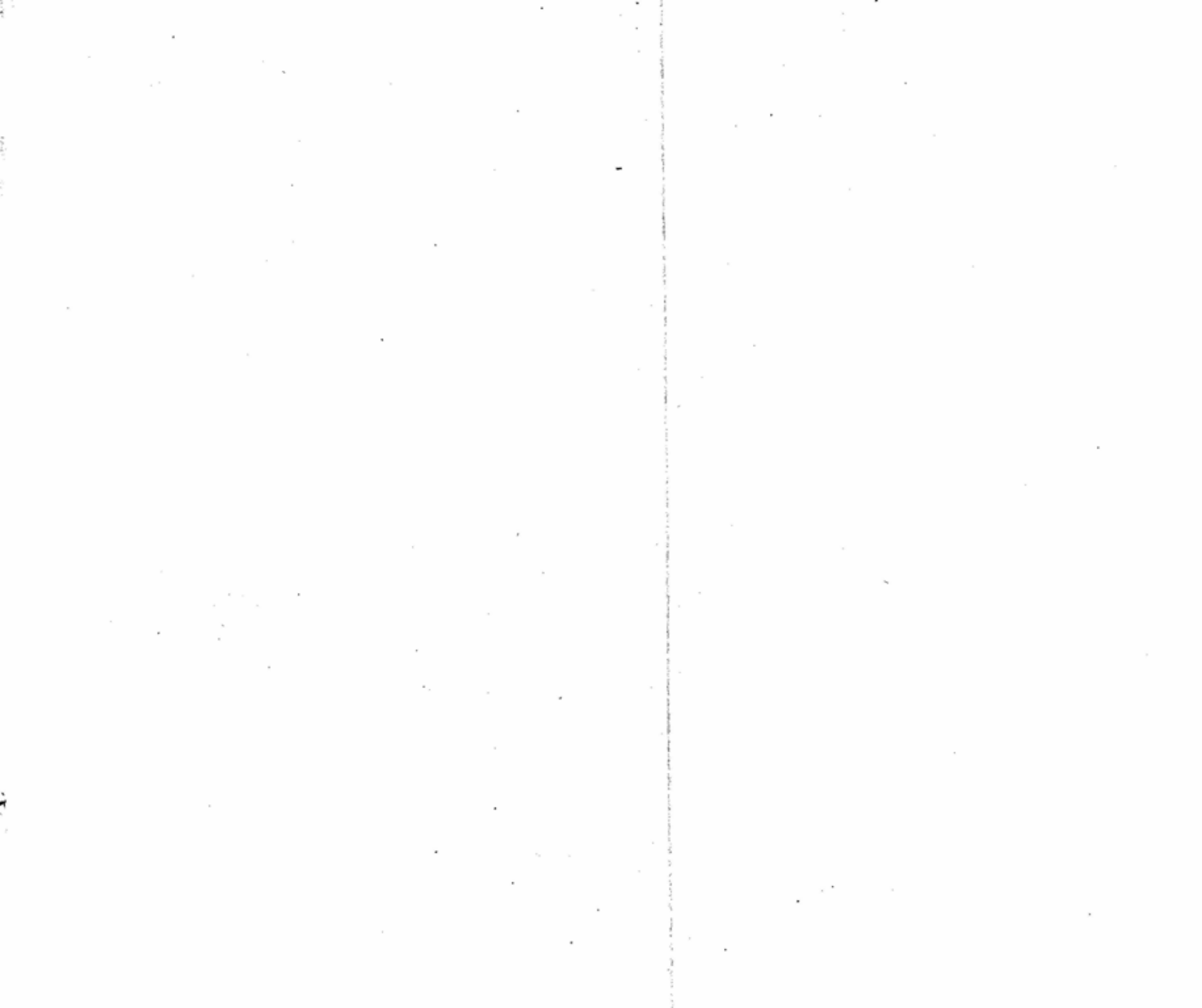


Early Christian Catacomb, near the sea coast, Alexandria. Late Roman Period.

seen convinces me that a wide field is open, and one that might be traversed with advantage both by the archæologist and the practical architect. We learn at least one great lesson from the Mahometan style,—namely, that architecture is independent of sculpture, since representations of the human or animal form are rarely, if ever, introduced, and of vegetable types we see little more than a very conventionalised representation. And yet the mediæval architecture of Cairo is no less noble, varied, impressive, and picturesque, than that of Caen, Nuremberg, or York. And without denying the excellence of the results produced by the combination of architecture with sculpture, I do not think we are doing justice to the former, if we do not claim for it the position of a perfectly independent art, and assert that an architectural composition of the highest order may exist without the aid of sculpture, just as a group of sculpture of the highest order may be produced and appreciated without any help from architecture.

And another thing the architect may learn, is the employment of the dome. It is true that the revived classical style, whatever may be its faults, has the merit of bringing this beautiful feature to its highest perfection ; yet, since it seems to be considered a necessity that our national style must be mediævalised ; and since the dome, whether we take into account its constructional advantages, its convenience, or its beauty, ought not to be excluded, something might be gained by the study of those edifices in which it prevailed coevally with our own golden epoch of architecture, and we might avail ourselves of many suggestions, both as to composition, construction, and ornament, which would enrich our style without too much Orientalising its character.

The Central Committee desire to renew, with special gratification, the expression of their grateful sense of the constant and most friendly liberality of Mr. Petit, by whom the whole of the illustrations of the foregoing Memoir have been presented.

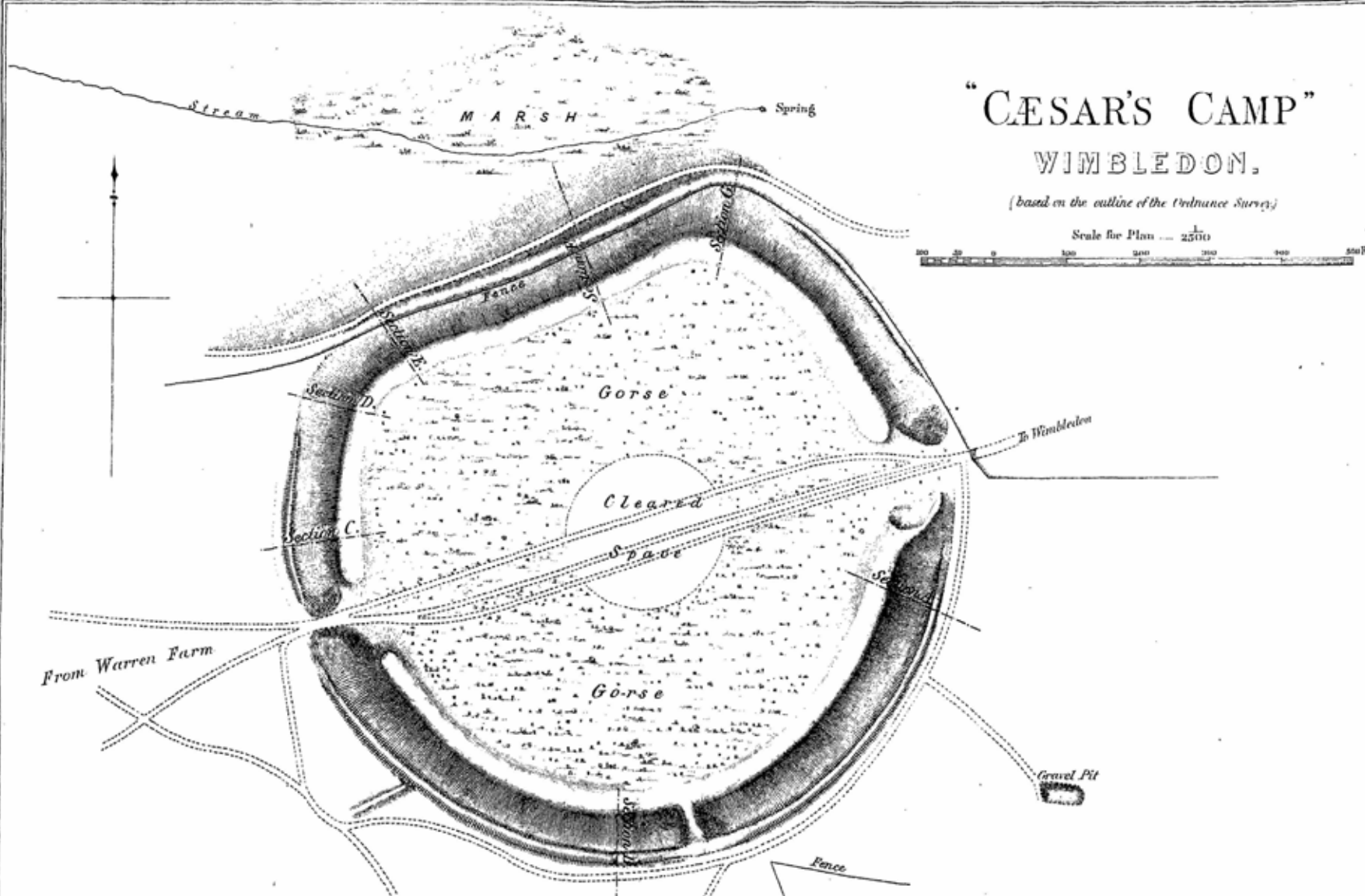


"CÆSAR'S CAMP"

WIMBLEDON.

(based on the outline of the Ordnance Survey.)

Scale for Plan ... $\frac{1}{2500}$



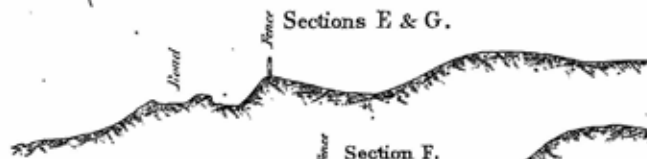
Sections A.B. & C.



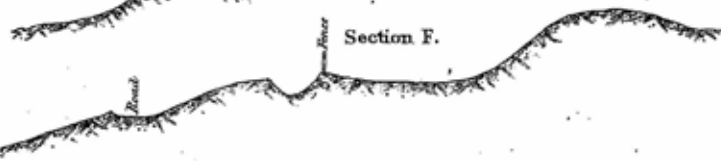
Section D.



Sections E & G.



Section F.



Scale for Sections 40 feet to an Inch.



"CÆSAR'S CAMP," WIMBLEDON.

By WALTER H. TREGELLAS.

THE notes for this paper were made at the beginning of 1865, when a rumour was prevalent that the interesting and picturesque old earthwork at Wimbledon was threatened with serious injury by the proposed construction of some new roads. It is said that it was intended to divide the ramparts by two new roads diverging from the centre of the work, and to cut off a third part of the area by the boundary wall or fence of a proposed park—a place of public recreation in which such a feature of interest as the camp might well be made available, and suitably preserved. These rumours, happily, have died away.

It would, no doubt, be a hopeless task to endeavour to settle definitively the period to which these remains may be referred; but it may not be unprofitable to set forth the evidence and the opinions which have been brought forward by various authorities on behalf of each of those nations to one or another of whom we are accustomed to attribute the numerous earthworks scattered throughout our island. Was Wimbledon camp the work of British, of Roman, of Saxon, or of Danish hands? There is something to be said in behalf of each supposition.

The final syllable of Wimbledon will at once suggest a British origin for the name, if not for the camp itself. Conjoined, as it probably has been in this case, to a Saxon name (as has been done in many other instances which will suggest themselves), the syllables *don*, *din*, *dinas*, *dune*, &c., are admitted to be tolerably safe indications of the existence, at some time, of a British stronghold, at the places so named. Brayley, in his "History of Surrey,"¹ after remarking that various authors ascribe it respectively to the Britons, Romans, Saxons and Danes, gives it as his own opinion that

¹ Vol. iii. pp. 499 et seq.

it probably was originally a British stronghold, subsequently occupied by other nations in succession. Mr. W. D. Saull, in a paper read before the Ethnological Society, on the 15th of March, 1848, speaks very decidedly in favour of the British origin of this earthwork; and even goes so far as to distinctly refer it to the "Fourth, or Pastoral Period" of British history, when our rude forefathers kept their herds in enclosures of small extent—but numerous—upon the highlands. But there appears to be no reason why this writer might not, with equal propriety, have referred it to his "Fifth Period," when, as he describes it, large and strong encampments were formed on the downs, superseding the small hill-camps. Mr. Saull, on the supposition that it belongs to his "Fourth Period," refers Wimbledon to the same date as the enclosures at Edge Hill in Warwickshire, at Brailes, at Hooknorton Heath, and at Madmarston and Nadbury Camps. As examples of the "Fifth Period," to which Wimbledon would seem more properly to belong, Mr. Saull cites the earthworks on St. Catherine's Hill near Winchester, the camp on the Downs near Folkestone, and a very fine example at Danesfield near Stockbridge.

Mr. Saull is not alone in his decided opinions on this subject. The Rev. Thomas Hugo, at a meeting of the London and Middlesex Archæological Society, on the 26th of February, 1856, stated that "a large collection of hut circles was distinctly visible on Wimbledon Common a short time ago;" and suggested that Wimbledon was "the fortified fastness to which the Romans pursued Cassivelaunus." In a letter to myself Mr. Hugo writes that the hut-circles to which he referred were numerous and conspicuous some fifteen years ago, in a line between the windmill and the "camp," especially on the brow of the high ground on the north, over against the camp. They were round, and about 4 ft. or 5 ft. deep, the edges overgrown with brake, and at the bottom of each was a mass of large stones. Mr. Hugo was then fresh from some investigations which he had been making into similar remains on Worle Hill, Somersetshire, and is quite clear as to having correctly attributed the pits at Wimbledon. But no recent investigations, either by Mr. Hugo, or by myself, have resulted in a discovery, or rather re-discovery of these remains.

But yet another trace of supposed British occupation has

vanished from this neighbourhood. Mr. T. Stackhouse, who, in the early part of this century, wrote a course of lectures (of which only two I believe were published) on the architectural and other remains of Britain, states² that “near an old single-trenched camp at the south-west corner of Wimbledon Common, is a very small flat barrow, cut in the form of a cross. I do not know if it has been mentioned by any other writer.”³

Those who know Wimbledon Camp will admit that it agrees pretty well with Cæsar’s well-known description of the British oppidum :

“Oppidum autem Britanni vocant, quum sylvas impeditas vallo atque fossâ munierunt,” especially when taken in connection with Strabo’s echo of it :⁴

“Πόλεις δ’ αὐτῶν εἰσι· οἱ ὄρυμοί· περιφράξαντες γὰρ δένδροσι καταβεβλημένοις εὐρυχωρήν κίκλον ἐνταῦθα καὶ αὐτοὶ καλυβοποιούνται καὶ τὰ βοσκηματα κατασταθμένουςιν οὐ πρὸς πολλὸν χρόνον.”

Mr. A. J. Kempe, F.S.A.,⁵ another of those who are unwilling that any but the Britons should have the merit of having formed this work, observes that its construction is somewhat peculiar, and that the indications, which still exist, of a second or outer *vallum*, occasioned the erroneous conclusion formed by some authors, that there was a double *fosse*. He remarks that writers on British military antiquities have considered that it was one of the principles of British tactics to use concentric rings of ramparts, rising one above the other, and he finds such an arrangement faintly indicated at Wimbledon.

The accompanying plan and sections show the character of this interesting enclosure, about which so much has been written and so little is actually known. Constructed with the gravelly soil obtained from the excavation of the fosse, it consists of an entrenchment which would have been quite circular, but for the rapid fall of the ground on the north side : on that side it follows the contour of the surface,—an arrangement which seems to indicate that much importance was attached to the occupation of this precise site. The fosse is deeper and bolder at some parts than at others, but its average depth may be stated at about 12 ft., and the

² Lecture ii. f. 49.

³ Some supplementary remarks on the subject of cruciform tumuli will be found at the close of this paper.

⁴ Lib. iv. cap. v. sec. 2 (Kramer, p. 313).

⁵ *Archæologia*, vol. xxxi. p. 519 (1846).

height of the vallum at from 10 ft. to 20 ft. above the ground immediately beyond it. The outer vallum to which Mr. Kempe refers is more easily to be traced on the southern side than on any other; but the outworks noticed by Brayley (p. 506), are now almost, if not entirely, erased: they also were probably on the southern side, where the ground is, from a military point of view, not so strong as on the northern side.

Allen, in his "History of Surrey" (vol. i. p. 475), describes it as a round camp surrounded by a double ditch, including about seven acres, the inner trench, in his time, deep and perfect. The true area of the enclosure is about fourteen acres.

Salmon (p. 31) remarks that it is not on very advantageous ground (though it certainly appears to me to be on one of the best military positions in the neighbourhood), and that it was too small to contain an army.

The interior has been ploughed, and any traces which might formerly have existed of huts, &c., are of course gone; there is consequently little left, beyond its form and situation, and the conflicting pages of late writers, to give a clue to its origin.

With one exception I am not aware of any relics having ever been found nearer to the camp than on the top of Kingston Hill, a mile or two off, where some British and Roman pottery, spear-heads, &c., have been discovered.⁶ I have been favoured with a communication from Mr. Albert Way, who tells me that he has a note of a singular relic, possibly a sling-shot, found some years ago *at the Camp*, consisting of a large perforated object of baked clay. It was shaped like a cheese, was $5\frac{1}{4}$ in. in diameter, $3\frac{3}{4}$ in. thick, and the hole was $\frac{3}{4}$ in. in diameter.

Bearing in mind, then, that the earthwork is situated on an elevated spot commanding an extensive view—is of a circular form—is near springs of water, and was probably in former times surrounded by a forest (a supposition strengthened by the presence of the oaks which still grow on its ramparts), we cannot deny that the *situation* and *form* of Wimbledon Camp fulfil most of the characteristics which

⁶ Including a fragment of a cinerary urn, or of a corn-pot, discovered by the writer, and now deposited in the British Museum. See Arch. Journ. vol. xx. p. 372.

Cæsar and Strabo give, as distinguishing the oppida of the ancient Britons.

Its *form* certainly does not belie the supposition that the entrenchment is of British origin. In looking through the Ordnance Maps, it is very noticeable that, along the Roman roads, and in their immediate vicinity, there is, as might be expected, a marked tendency towards the rectangular outline which distinguishes, almost invariably, the camps of the Romans. But it must not be forgotten that square camps are also to be met with, occasionally, in the fastnesses of Cornwall and North Wales, though generally the "camps" in these parts are either circular or elliptical; nor, as is well known, are instances wanting, both of undoubtedly British and Roman works, when the advantages of a strong and irregular position superseded the ordinary practice, and the vallum followed more or less closely the figure of the ground on which the camp was formed.

Such, then, appears to be the evidence in favour of the British origin of the camp at Wimbledon. Let us now examine what has been urged in favour of its having been a Roman work.

It will be remembered that Surrey was long held by the Regni, and was probably governed by a Romano-British king; and that it also lay in the line of march between the south-east coast of England and the passage of the Thames.

Gale, in his "*Antonini Iter Britanniarum*," thus argues in favour of a Roman road having passed through Wimbledon; and his views seem to have been accepted by Mr. W. Hughes, who, in his *Map of Roman Britain*, published in 1848, gives Wimbledon as the site of a Roman camp. Gale says, "*Noviomago. Nunc Woodcote Warren. A Londinio ubi decesseris ad Austrum, post ciro ciro Pass. vel circiter, via publica dispescit se in tres semitas; quarum Occidentalior per Wimbledone (i. e. Windledune, ad Vindilin fluvium) & Vallum Germanorum, qui hic sub A. Plautio meruere, pergit ad Kingstonium, vetus oppidum (sed & sedem, & nomen mutabit) haud dubiè a primis Romanorum victoriis, firmatum præsiidiis quemadmodum & Gatton, Bensbury, Wimbledone, & Burrow super Benstead Downs, aliaque circumjacentia ad Thamisin loca; id situs,*

& Provinciæ tutela postulabant. hîc Romani primo *Thamesin* per pontem trajiciebant, & fortè Claudius ipse. hic in dunis proximis ad Combe oio Pass. ab hodierno *Kingstonio* multi Romanorum imperatorum nummi sunt effossi."

Dr. Roots,⁸ the well-known collector of the Roman antiquities found at Kingston Hill, and in the bed of the Thames (who is followed by Biden,⁹ the historian of Kingston), was also of opinion that Cæsar occupied this entrenchment, if indeed he did not form it, whilst preparing for his conflict with Cassivelaunus, on the banks of the river; and he urges, in support of these views, the Roman remains which have been found in this neighbourhood. The great objection, however, to this theory, appears to lie in the circular *form* of the enclosure. Its smallness, which gives Salmon his grounds for stating that it could not be of Roman construction, is, as has been shown, no valid objection.

Its claims to Saxon parentage appear to be as follows. Surrey was at one time under the dominion of the South Saxon kings; and, as Holinshed informs us, the first battle between the Saxons themselves was fought at Wimbledon (A.D. 568), between the forces of Ethelbert, King of Kent (then a child), under his generals, Oslac and Cnebba, and Ceaulin, King of the West Saxons, "for the dignity of Bretwalda." Camden says of "Wibbandune, now commonly called Wimbledon," that "it is possible the military fortification I saw here, of a circular form, called Bensbury, might take its name" from Cnebben, who was slain here.

The first two syllables of the name seem to point to a Saxon origin, for at least that part of the word. Wimbaldus, Lysons says,¹ was a Saxon name; and indeed most of the names under which it has gone have a Saxon sound: such are Wipandune,² Wiphandune, Wilbandune, Wibbandune, Wilbaldowne,³ Wubbandune, Wibbandune,⁴ &c.⁵ The word was, however, sometimes spelt as it now is in 1313—1327, as the Registers of Archbishop Walter Reynolds testify.⁶

⁸ See *Archæologia*, vol. xxx. pp. 490-2, and vol. xxxi. pp. 518-21.

⁹ Biden's *History of Kingston* (1852), p. 3.

¹ *Environs of London*, vol. i. p. 519.

² Henry of Huntingdon.

³ *Grafton's Chronicle*, vol. i. p. 111.

⁴ Camden.

⁵ See Symmes's MS. Collections for Surrey, 6187, *Plut. clixix.-c.*, Brit. Mus., for other modes quoted of spelling the word.

⁶ *Brayley's Surrey*, vol. iii. pp. 499 et seq.

Nor should we omit the consideration that, so far as we are acquainted with the earthworks of the Saxons, there is little in the camp at Wimbledon which conflicts with the received notions on the subject. Fosbrooke,⁷ quoting Strutt, ascribes to the Saxons those earthworks with a raised interior surface, surrounded with a broad ditch, and encompassed with an earthen vallum; and he instances the small, double-trenched circular work at Mount Caburn, near Lewes, as a perfect specimen. High valla and deep ditches may generally, he thinks, be referred to the Saxons; and the profile of the ramparts at Wimbledon may perhaps be considered bold enough to fulfil these conditions.

It now only remains to consider the probabilities of the Danes having constructed this encampment. Aubrey, in his "Natural History and Antiquities of Surrey," vol. i. p. 16, says it was made by the Danes, "as appears by the Chronicle." It certainly appears that after Surrey passed into the hands of the West Saxons, this part of the country was much ravaged by Turkill and Swaine, Danish warriors; but I have not succeeded in finding the authority for Aubrey's positive statement; and the only other evidence that occurs to me as bearing, however remotely, on the Danish origin of this entrenchment is the statement in Spelman's "Life of Alfred," that "the Danish camps were always round, and with one entrance;" a statement, the accuracy of which would (not to multiply instances) be sufficiently disproved by the harp-shaped camp at Bratton, Wilts,—one of the best ascertained of the Danish positions. Perhaps the utmost that could be said on this part of the subject is, that, so far as I am aware, there is nothing in the form of the work to entirely preclude the possibility of its being of Danish origin.

In concluding these remarks, it may not be out of place to notice, that the earthwork now under consideration has, at different times, borne for its name the various forms of the word Wimbledon which have already been mentioned; that Camden knew it as Bensbury; and that Mr. Kempe tells us that, in 1846, it was called Warren Bulwarks. Of course it is also sometimes called "The Rounds;" and, equally of course, its most usual name is "Cæsar's Camp."

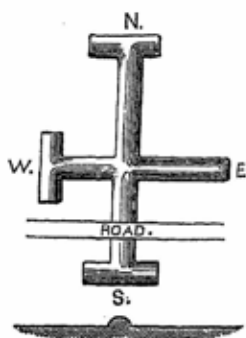
⁷ Encyclopædia of Antiquities, vol. ii. pp. 554, &c.

Whether Wimbledon Camp was originally merely the scene of a fortified village and cattle-enclosure of the ancient Britons — or an encampment of Roman legions — or a fortress of either Saxon or Danish warriors — or whether it has been the stronghold of each in succession, it is obviously a site round which historic suggestions richly cluster; and it is earnestly to be hoped, that, in making any future arrangements for the allotment of the Common and its vicinity, this interesting piece of antiquity may be judiciously conserved.⁸

The subject of cruciform tumuli is one of much interest. The notices which exist of such remains are, I believe, few, and the subjects of them appear to be of very uncertain origin. Besides the very short account given by Stackhouse of that at Wimbledon, I have hitherto been unable to find more than the following instances:—

First, a large example on the top of a mountain at Margam, Port Talbot, South Wales (described in the Arch.

Camb. vol. iii. p. 223), each arm of which is 70 ft. long and 18 ft. wide. It is not figured anywhere, I believe, but of this work I hope to be able to procure a plan and further information.



Cruciform barrow, St. Ma'lanik, Hereford. Dimension of width 15 ft., height 4 ft.

The second example is at St. Margaret's Park, eleven miles west-south-west of Hereford, and half-a-mile east of St. Margaret's church. It is noticed in the Journal of the Archaeological Institute, vol. x. p. 358, and vol. xi. p. 55, and is also fully described and figured in the Gentleman's Magazine for October,

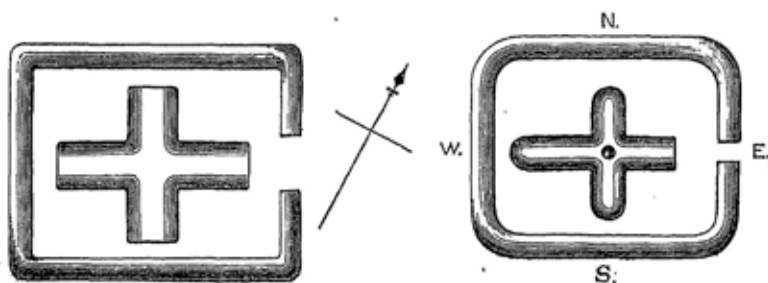
1853, p. 387. (See plan and Section.) No results were obtained by excavations made in the tumulus itself, but

⁸ Though not, perhaps, immediately connected with an account of "Cæsar's Camp," it may be desirable to refer the reader to a description of twenty-three barrows which existed, up to 1786, on Wimbledon Common, about a mile to the north of the Camp; it will be found

in Douglas's *Nenia Britannica*, p. 93. The only relic discovered by Mr. Douglas appears to have been a small earthen vessel; but it is probable that the barrows had been opened, about twenty-eight years before, by Dr. Stukeley.

traces of ancient habitations and pottery, and some remarkable bronze instruments have been found in the vicinity.

A third additional example, near Banwell in Somersetshire, between Bristol and Bridgwater, is described and figured in Hoare's Ancient Wiltshire, vol. ii. p. 43 (under *Roman era*). Of this work also plans are here given. A



(Hoare's Anc. Wilts, vol. ii. p. 43.)

(Seyer's Bristol, vol. i. p. 85.)

Cruciform barrow, Banwell, Somerset.

further description of this barrow will be found in Seyer's *Memoirs of Bristol*, vol. i. p. 85. Mr. Seyer describes the enclosing rampart as only about 3 ft. high, and surrounded by a slight ditch. It measures 35 yards from east to west, and 45 yards from north to south. The cross ridge, he says, is about 2 ft. high and 4 ft. or 5 ft. wide, also edged on all sides by a slight ditch or trench, scarcely 6 in. deep; and in the middle of the cross an excavation, apparently, he thinks, the mouth of an old well.

Nothing, so far as I am aware, seems to be known positively, at present, of the origin or history of these singular remains, except that they are doubtless of great antiquity. It is interesting to know that there is some reason for supposing that an example existed, not very many years ago, near Wimbleton Camp; and it is to be hoped that any fresh light which may be thrown upon cruciform tumuli generally, may also cast a ray upon the now obscure history of the Camp at Wimbleton.

NOTES ON RECENT DISCOVERIES AT CARTHAGE.

By THE REV. GREVILLE J. CHESTER, B.A.

BELIEVING that nothing which tends to throw light on the antiquities of Carthage can fail to interest the archæologists of England, I beg to submit the following brief notes to their consideration. On arriving at Tunis (on the 8th of January, 1866) I heard that since my former visit to Carthage in the previous April, some excavations had been made near the more perfect series of cisterns, and that the antiquities discovered there, as well as others procured from various stone-digging Arabs, had been appropriated and preserved by Sidy Mohammed, eldest son of the Khaznadar, or First Treasurer, Mustapha, who now wields almost supreme power in the Regency of Tunis. Through the kind intervention of Richard Wood, Esq., C.B., H. M. Consul-General, I received permission from the young Sidy (lord), to inspect his collection, which I found in a sort of garden-house in the grounds of his father's new villa, which is situated on the edge of the sea, close to the artificial piece of water that is probably the remains of the "Cothon," or port of ancient Carthage. This "Cothon," if such it be, is in fact enclosed within the grounds of the Khaznadar's garden, and recent excavations in the small island in its midst have brought to light two broken pillars, the one of breccia, the other of a yellow marble, indicating the former existence of some magnificent building. The villa itself stands about a quarter of a mile in a direct line from the village of Dowar Eshut, and less than a mile from the French chapel of St. Louis, which forms such a prominent feature amidst the ruins of ancient Carthage.

The Sidy's collection, which had not previously been seen by any European, has never been arranged or classified, the various objects lying about just as they were brought in.

I proceed to notice the more interesting specimens.

Seven stones, four of which bear inscriptions in Punic or Phœnician characters, belong to the period of the ancient Carthaginians.

1. This stone has a beautifully cut inscription, and under it an object resembling a caduceus, and a triangle surmounted by a disk. In this instance, as in No. 6, a kind of architectural ornament divides the inscription from the



objects below it. This is the only perfect inscription in the collection. I had unfortunately no materials with me to take a rubbing of this interesting relic, but I made shift to take an impression on wet paper, which I trust may lead to its decipherment.

2. A broken inscription, of which I took as accurate a copy as time and the defacement of the stone permitted.

3. An inscription, imperfect at top, but having below it a vase with handles, and on either side the latter a flower-bud resembling the lotus.

4. An inscription imperfect below; above it an open hand.

5. A broken inscription; below it an eye.

6. This stone presents a hand pointing up to an eye, from which it is separated by an architectural band, like that on No.

1. It would be singular if this well-known Arab symbol, a charm against the Evil Eye, known sometimes as the Hand of Providence, and otherwise as the Hand of Justice, could be shown to have its origin in Phœnician sculptures, or by tradition handed down from those remote times in the unchanging East. In these cases, it will be observed, the hand and the eye are found in juxta-position. The hand which appears over the great entrance-gate of the Alhambra at Granada, is a symbol in universal use amongst the peoples of Arabian descent. A silver hand of this description

Handwritten Punic script, likely a rubbing of the inscription on stone No. 6. The script is arranged in four lines, showing a sequence of characters that appear to be a form of the 'Hand of Providence' symbol.

exhibited to the Institute last year, I bought from the head of a negress in the Oasis of Biskra in the Sahara.

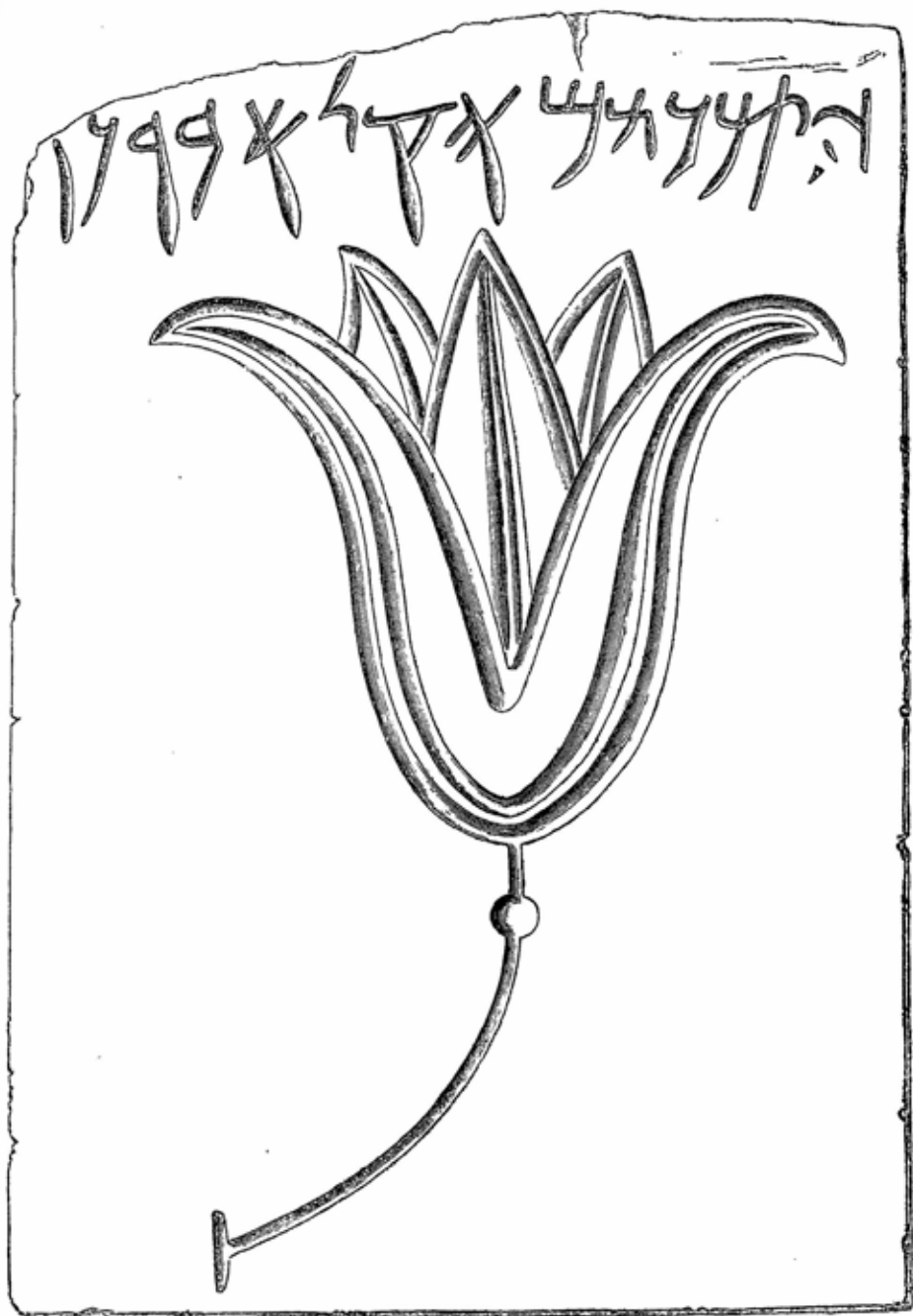
7. This stone exhibits a well-executed palm-tree in fruit.

The already-named carvings and inscriptions are all cut on a kind of close-grained limestone. In this connection I may mention that the Rev. Mr. Fenner, missionary to the Jews in the Regency of Tunis, possesses a small stone found at Carthage, with one line of a Punic inscription, and beneath it a beautiful flower, apparently the lotus, as in No. 3. See the accompanying representation of this interesting relic.

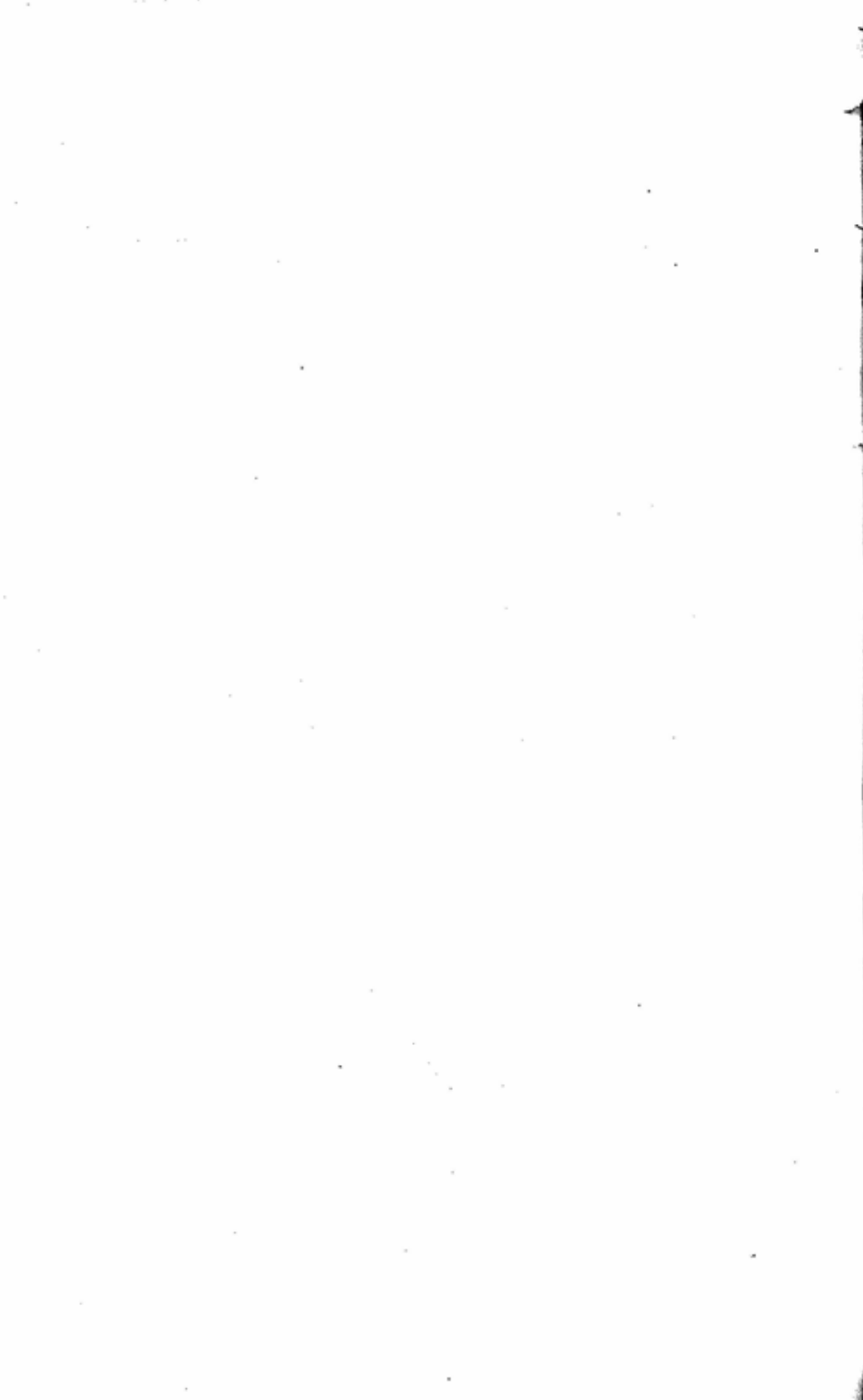
To these may be added a small headless figure in a sitting posture, something like a Japanese idol, but which I am able to assign to the period of the ancient Carthaginians, from its very close resemblance to six small stone figures, also headless, found in the Phœnician temple of Hajar Kim in the island of Malta, and now preserved in the Museum at Valetta.

Of Greek art I saw nothing, unless indeed I may except a small partially-draped torso of good work, and a beautiful little vase of black, fine-grained pottery, elegantly ornamented with white lines.

Roman objects, as might be expected, are numerous. Of these the principal is a beautiful statue of the youthful Bacchus, the size of life, crowned with grapes and standing beside a stump or pedestal, wreathed with the same fruit. I observed also in the villa itself a small recumbent statue, holding a kind of cup. This figure has unfortunately lost its head, but it is apparently a river-god. I saw also a mutilated bust of some imperial personage of the later empire, two or three heads of statues, an inscribed altar, and several fragmentary inscriptions, mostly of a memorial or general character. One of these inscriptions only seems to merit a detailed description. This stone is of a yellowish-brown sandstone, and exhibits an altar, approached by a step and surmounted by a large cone of some kind of pine. On either side this altar is a large five-pointed star, and below each star a ram. Below, to the left, is a kind of casket or box, and underneath it a vase, while the corresponding space to the right is occupied by a wall. Below is the inscription—



Inscribed Stone found at Carthage.
In possession of the Rev. Mr. Fenner, at Tunis.



S · D · AVGSAC · L ·

VIBIVS DATVS

V · S · L · A

The whole of this carving is in low relief, and of peculiar workmanship. The Roman pottery is all of a coarse and common kind, with the exception of some interesting Christian lamps, to be noticed hereafter. There is not a single perfect specimen of the so-called Samian ware, although fragments of it are by no means of uncommon occurrence amongst the ruins. There are also a large number of small disks of various-coloured marbles, and of the beautiful green Egyptian porphyry, which the Romans have shaped out as pieces for a game resembling draughts.

I now proceed to mention a class of monuments, which I regret I am unable to appropriate with any degree of certainty. In the collection of Sidy Mohammed are six upright stelæ, from five to six feet high, of which some have triangular tops. They are covered with sculptures in low relief, of a very debased style of art, and are stated to have been found in a place called "Tooboorsook," some two days' journey from Carthage, in the direction of the Algerian frontier. Upon each is a rude representation of a temple enclosing a statue, round the latter of which, in one instance, are numerous circular holes, with a deeper perforation in the centre of each, and apparently intended to contain disks of bronze or some other metal. On other portions of these singular stones are sculptured various conventional ornaments, and rude figures of men and animals. In one instance only is there any sign of an inscription, and in this the letters I—vs, in the midst of a small square, can alone be deciphered. If it were safe to conjecture, I might suppose these monuments to be the work of some rude Carthaginian sculptors from the interior, who were trying to imitate the debased handiwork of late Roman times. Of the numerous pieces of mosaic pavement I need make no lengthened mention, as, like those discovered by Dr. Davis, and now in the British Museum, they are evidently of Roman workmanship, and present nothing remarkable in their material or design.

I now come to Christian antiquities. These comprise a large number of lamps, and a most curious baptismal font made of *lead*. The lamps present the usual types, and closely

resemble those found in the catacombs of Rome or Syracuse. Amongst other designs I noticed various crosses, the monogram of our Lord, the seven-branched candlestick, the peacock, the dove, the lion, the sacred $\text{I}\chi\theta\upsilon\varsigma$, and, what is perhaps the most interesting of all, the "Three Children," Hananiah, Hazariah, and Mishael. I may add here, that two lamps from Carthage, belonging to Richard Wood, Esq., C.B., present, respectively, a martyr contending with a lion, and a figure holding a cross and treading underfoot a dragon.

The font is indeed an extraordinary vessel, and it is much to be wished that it could be rescued from the profane hands of Moslems, and placed in our National Museum. It is, as has been already remarked, made of lead, a comparatively rare material for a font. It measures fifty-six centimetres in height by fifty in diameter. In shape it is circular. Immediately below the brim, before the inscription, is the early Christian or Byzantine symbol of the Resurrection, two peacocks feeding out of a vase. The treatment much resembles that of the same subject represented on marble tablets let into the brick walls of Coptic churches in Egypt. The inscription is enclosed in a sort of fillet or frame, and reads as follows:—

ΑΝΤΛΗ[ΣΑ]ΤΕΝΔΩΡΜΕΤΕΥΦΡΟΣΥΝΗΟ

The letters s and Δ, which I have supplied, as in the original they have corroded away, show the whole inscription to have read—'Αντλήσατε ὕδωρ μετ' εὐφροσύνης, being the LXX. version of Isaiah, c. xii., v. 3: "Ye shall draw water with joy (ἐκ τῶν Πηγῶν τοῦ σωτηρίου) from the wells of the Saviour."

The English version, following more closely the Hebrew, has the less striking rendering: "Therefore with joy shall ye draw water out of the wells of salvation (τῆς σωτηρίας)." The imperative form of expression rather than the future tense is perhaps intended in the present instance.

I cannot refrain from remarking that the occurrence of this verse in such a connection affords an interesting independent proof of the high estimation in which the Sacrament of Holy Baptism was held in the church of S. Cyprian.

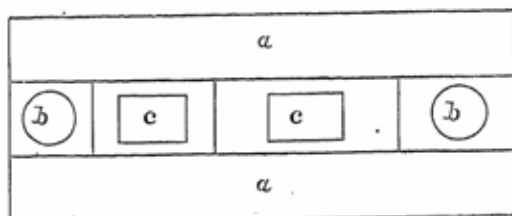
Immediately after the inscription follows a group corre-

sponding to that of the peacocks, and representing a female figure supported by a sea-monster, and plainly intended to set forth the efficacy of the element of water in the Sacrament of Regeneration. Below are various groups, of which some are in a bad state of preservation. Among the perfect ones are our Lord as the Good Shepherd, with a sheep on His shoulders, a figure with the palm-branch of martyrdom, another holding a wreath and standing by an altar, a combat of lions, a bear, and two palm trees. All these groups are represented in relief, and some of them, especially the bear, with considerable spirit and fidelity. The shape of the Greek letters indicates that this most curious font belongs to a late period; but it may be questioned whether a leaden font of so early a period has hitherto been discovered. It merits the most careful study, and, considering the place of its discovery, its inscription and the style of art which it exhibits, it must be regarded as an object of extraordinary interest.

While on the subject of Christian antiquities, I may mention that, in the shop of a Hebrew shoemaker in Tunis, I found a large piece of white marble bearing the effigy of our Lord as the Good Shepherd, which had been brought from Carthage, and I was informed that a duplicate fragment had been bought and carried away to Spain by a late Spanish consul. The Rev. Mr. Fenner, who has travelled through the remoter parts of the Regency, informs me that he has discovered the remains of several Christian churches, and has found several Christian sepulchral inscriptions in some remote situations. The remains of African Christian art are not, therefore, so rare as Dr. Davis would lead us to suppose.

It may interest some persons to hear that, during the recent excavations, the entire roof of the second largest series of cisterns at Carthage has been laid bare, and that it is even proposed to restore them to their original purpose. The six circular chambers with cupolas, which Davis says "may have contained statues" or held the guards of the cisterns, are now plainly shown to be cisterns themselves, since, like the other cisterns, they are plastered up to a certain height, the better to contain the water. At present they look like gigantic boilers. Dr. Davis has omitted to mention that between each pair of circular chambers there

are two square tanks, as shown in the annexed diagram. At the extremity of the cisterns, towards Sidy Bosaid, a paved chamber with three tribunes or apses has been laid



a, a, cisterns; b, b, circular chambers; c, c, tanks.

bare, and several marble mouths of well-holes have been ascertained to have led down into each cistern from above. Many of these are still *in situ*. That the tribunes were of an ornamental character is proved by my having found several tesserae of blue glass mosaic, which had evidently fallen from the coved roofs above. Several large pieces of Roman mosaic pavement have been found in the past year in the vast mass of confused ruins which lie beside the sea below the cisterns; and at the present moment huge stones, beveled like those in the Celtiberian walls of Tarragona, or the Phœnician walls of Syria, are being conveyed to Tunis from a spot below the hill of St. Louis.

In conclusion, I desire to remark that there is nothing either in the present political state of Tunis, or in the character of the oriental mind, to lead to the expectation that the collection of Sidy Mohammed will long remain intact. Made without knowledge of antiquarian researches, it is at any moment liable to be dispersed, destroyed, or given, in a moment of impulse, to the most worthless adventurer. Would it not, therefore, be desirable that our Consul-General should receive instructions from the Foreign Office to watch for a favorable opportunity to acquire it by purchase, or otherwise, for the British Museum, where it should be incorporated with the Carthaginian collections which were made by Dr. Davis at the expense of the nation?

NOTICES OF ROMAN PIGS OF LEAD FOUND AT BRISTOL, AND OF METALLURGICAL RELICS IN CORNWALL, IN OTHER PARTS OF ENGLAND AND WALES, AND ALSO ON THE CONTINENT.

In a former volume of this Journal an inventory was given of the relics of metallurgy in Roman times,¹ the *massæ plumbi*, or pigs of lead, that from time to time have been found in this country, and of which the greater part are preserved at the British Museum. Towards the close of the autumn of 1865, two objects of this description were found at Bristol; of these, one, through the like liberality that we had formerly the satisfaction to record on a similar occasion, has been added to the Series in the National Collection.

We are indebted for the following particulars to the Rev. Canon Scarth, who received timely information of the discovery from Mr. John Reynolds, a member of the Institute resident at Bristol. It occurred in making excavations in Wade Street on the eastern side of the city; the precise spot being the original bank of the River Frome, which has there been confined in later times to a narrower channel than that in which the stream formerly flowed in its winding



Roman Pig of Lead found at Bristol. British Museum.

course towards the Avon. One of the pigs was taken to the shot manufactory of Messrs. Sheldon, Bush, and Co. at Bristol, the firm by which, in 1853, a similar relic, found at Blagdon, the earliest of the series hitherto known, had been preserved.² The second passed into the possession of Mr. Edkins, whose collection comprises valuable antiquities of local interest. The two relics bear the same inscription,

¹ Arch. Journ. vol. xvi. p. 22.

² Ibid., vol. xi. p. 278; vol. xvi. p. 23.

some letters of the name of the Emperor being obliterated, in the same part of the surface in each instance respectively ; this defect has probably been occasioned by an injury to the mould which, as Mr. Scarth suggests, may have been of clay. On the pig, however, last noticed, he remarks that there is the appearance as if a thin metal plate had been laid over the Emperor's name.

The *massa plumbi* now, through the liberality of Mr. Arthur Bush, added to the collection in the British Museum, measures 21 in. by 5 in. ; the inscribed face, namely, that which represents the bottom of the mould, 19 in. by $2\frac{3}{4}$ in. The weight is 76 lb. ; the weight of the second pig, in possession of Mr. Edkins, is 89 lb. The inscription, as shewn in the accompanying woodcut, may be thus read, the damaged letters being supplied :—

IMP' CAES' A[NTON]INI'AVG'PII P'P'



Some question, it must be observed, has arisen in regard to the Emperor to whose reign these metallurgical relics lately found should be assigned. Marcus Aurelius having, A.D. 161, succeeded Antoninus Pius, by whom he had been adopted, took the names of Marcus Aurelius Antoninus ; he is styled also Pius, as well as Pater Patriæ. Caracalla, when created Cæsar by his father Severus, A.D. 196, likewise took the names of Marcus Aurelius Antoninus ; he is styled Pius and Pater Patriæ. Elagabalus, having represented himself as a son of Caracalla, took the same names as above given. It seems, however, most probable that the Emperor whose name is found on these relics is Antoninus Pius, successor to Hadrian, by whom he was adopted in A.D. 138, when the Senate conferred on him the title of Pius. In A.D. 139 he took the title of Pater Patriæ, which occurs on the pigs of metal under consideration, and he died in A.D. 161. Mr. Scarth is of opinion that they should be assigned to the reign of that Emperor, and the learned writer on Roman Epigraphy, Dr. McCaul, of University College, Toronto, concurs in that conclusion.

No *massa plumbi* of that period had previously occurred; the praiseworthy liberality thus for a second time shown by Mr. Arthur Bush in enabling the Institute to contribute such a relic to the National Collection cannot fail to be cordially appreciated. It may deserve notice that the weight is considerably less than that of many examples heretofore discovered; the weight of the pig found near Blagdon, Somerset, and brought before the Institute in 1863, is 163 lb.; that of a pig bearing the name of Hadrian, found at Bath in 1852, and now in the Museum of the Literary Institution there, is 195 lb.³

It is with pleasure that I take occasion to advert to the researches of our friendly trans-Atlantic coadjutor, Dr. McCaul, in the neglected field of Roman Epigraphy, and to the critical observations given in his "Britanno-Roman Inscriptions."⁴

In the Inventory formerly published in this Journal six pigs of lead bearing the name of Hadrian were described, of which four had been found in Shropshire; of these, one, brought to light in draining in the parish of Snead, in May, 1851, is now in the Museum of that spirited promoter of archaeological science, Mr. Joseph Mayer, F.S.A. The length of that specimen was stated to be a little more than 2 ft., and the weight 190 lb. I find mention of another as found in the same district. In Bagshaw's "History of Shropshire," published in that year, p. 678, it is stated, under Minsterley, that "in 1851 a Roman pig of lead was found by workmen in sinking through a slag-heap of smeltings; on this pig was the following inscription in raised characters—IMP · HADRIANI · AVG. The dimensions are stated to be, length 20 in., girth 20 in., weight 173 lb."⁵

I may here take occasion to append a few notices of some

³ Arch. Journ. vol. xvi. p. 34.

⁴ First published in the Canadian Journal, and reproduced in 1863 in one vol. 8vo. London: Longmans. The valuable notes on Pigs of Lead, pp. 32-35, claim particular notice, and I beg to acknowledge my obligation to the author's courteous criticism in pointing out some inadvertent errors in the Inventory given in this Journal, vol. xvi. p. 22, et seq.

⁵ Bagshaw's History, Gazetteer, &c., of Shropshire; Sheffield, 1851, p. 678. From

the coincidence of date, and the inscription I had been tempted to suspect that this pig might be the same as that above noticed as found in 1851 at the Roveries, near Snead. That place is however distant ten miles or upwards from Minsterley, which is situated about nine miles S.W. of Shrewsbury. The dimensions and weight, however, do not correspond; they differ likewise from those of the pig found about 1776 at Minsterley. Arch. Journ. vol. xvi. p. 32.

other mediæval relics of the same class as those that have been described. In the British Museum there is a portion of a block or mass of lead found in the Thames, and bearing two stamps; one of these, which is perfect, is described by Mr. Franks as a merchant's mark composed of two circles, a star and the letters *io*, the imperfect stamp is a crowned H. From the form of the letters this object may be of the reign of Henry VI.⁶

In the Museum at Caernarvon there is an oval cake of lead, measuring $20\frac{1}{2}$ in. in length by $7\frac{1}{2}$ in. in breadth; the lower side is convex, the melted metal having been poured into what may be familiarly described as a boat-shaped mould; the thickness at mid-length is about 3 in. It was found at Amlwch on the north coast of Anglesea, near the rich mineral district of the Parys Mountain, chiefly noted for its copper mines, which were probably worked, as Pennant observes, in Roman times; lead containing a portion of silver, and zinc are also there obtained.⁷

I am not aware that any block or cake of lead has been noticed as found in the great source of mineral wealth of Britain in early times, namely, in Cornwall, where, however, that metal, comparatively less abundant than tin and copper, is by no means deficient. A singular image of lead, with slight admixture of other metal, was found on Bodwen Moor, about 1850, as related in this Journal.⁸ This mysterious and grotesque object was brought before the Institute in 1862, through the Right Hon. Sir Edmund Head, Bart. It was stated by Mr. Agar Robartes, in whose possession it remains, that it was at a considerable depth near one of the ancient sites of metallurgical operations, the so-called "Jews' Houses." This figure measures about 6 inches in height; it seems to represent a regal figure, seated, but the design is very enigmatical. On the breast are impressed, or cut, three Hebrew letters, Nun, Resh, and Shin; on the left side

⁶ Proceedings Soc. Ant., second series, vol. ii., p. 88.

⁷ Pennant, *Tour in Wales*, vol. ii., p. 265. It is there suggested that the ore may have been sent to be smelted at Caerhén, Caernarvonshire, where the copper cake inscribed *socio rome* was found. Pennant, *ut supra*, vol. i., p. 72. A round cake of copper was likewise found at Llanvaerthille, in Anglesea, a few miles from Amlwch. Its weight was

50lb.; it bore a mark described by Pennant as resembling an L. I noticed in the Caernarvon Museum a cake of copper, diam. 12 inches, stated to have been found near Gwyerdy, in Anglesea; its lower surface is flat, not convex, as in other ancient cakes of metal, for instance, those of tin described in this memoir as found in the Thames.

⁸ Arch. Journ. vol. xix. p. 172.

there is a character too indistinct to be identified, and upon the right the Hebrew Mem. The work is rude, but not archaic; it was examined with critical care by a learned Hebraist, Mr. Zedner, but no explanation has been offered, even by Dr. Barham and the assembled *savans* at the Truro Congress in 1862. The coincidence, that a relic bearing Hebrew characters should be found in a so-called "Jews' House," is doubtless to be regarded with suspicion, especially as imagery was repugnant to the faith and usages of the Israelites. The conjecture that such a figure might have been fashioned for some necromantic purpose, in the dark practices of Mediæval times, in which Hebraisms were largely mixed up, seems to partake of the solution—"ignotum per ignotos." I believe that no relic has been disinterred in Cornwall that can be connected with the traditions of Israelitish speculations in that county.

I formerly mentioned a few *massæ plumbi* discovered on the Continent, at Châlons-sur-Saone, Vieil Evreux, Lillebonne, and at Carthagena in Spain.⁹ In a subsequent tour in the South of France, my attention was called by M. Deloye, *Conservateur* of the Museum at Avignon, to a *saumon de plomb* in that collection. This object, in form resembling the pigs found in England, is of smaller size; it bears the inscription *SEGVSLAVIC*. The particulars communicated by M. Deloye have been stated in this Journal;¹ it will suffice here to advert to the discovery, which occurred in 1850, in a district known as le Forez, in the department of the Loire. No lead mines exist in the neighbourhood; the ponderous mass may have been deposited whilst in course of conveyance by the ancient line of communication, the *Via Domitiana*, in proximity to which it lay. It has been suggested that it was the produce of mines in the dis-

⁹ Arch. Journ., vol. xvi. p. 240, references are there given to notices of pigs of lead found on the continent. See especially a memoir by the Abbé Cochet, "sur le commerce et l'industrie du plomb dans la Gaule et la Grande Bretagne à l'époque Romaine;" *Revue Archéol.*, Dec., 1856, p. 548; and Mr. James Yates' Memoir on Mining Operations in Britain, Proceedings of the Somerset Arch. Soc., vol. viii. p. 17. The pig found at Lillebonne in 1840 is noticed by Mr. Roach Smith, *Coll. Ant.*, vol. iii. p. 87. I am indebted to him for

information that he regards it as belonging to the time of Severus; he proposes the following reading of the imperfect inscription—[SEV·PERTI]NACIS·AVG·PA. This "*lingot de plomb*" is mentioned also by the Abbé Cochet, in his *Normandie Souterraine*, p. 120.

¹ Vol. xvii. p. 257. See also a memoir by M. Auguste Bernard, entitled, "Description du pays des Segusiaves;" Paris, 1858, in which particular notice is taken of the *saumon* now to be seen at Avignon.

tract formerly occupied by the *Segusiani*, as indicated by the inscription above noticed.

In the Museum at the Public Library at Basle, as I am informed by Mr. Franks, there are two leaden pigs bearing the inscriptions SOCIETAT — S · T · LVC · RETI. The section of these *massæ* is semi-cylindrical; the ends are cut off vertically, not obliquely as in the pigs found in England; the length is about 15 inches. A detailed notice of these relics will be found at the close of this memoir. Similar semi-cylindrical blocks of lead, before noticed, have been found at Carthage; a specimen may be seen in the British Museum, and another in the Museum of Practical Geology.

In the enumeration of metallurgical relics given formerly in this Journal, I described a cake, supposed to be of lead, found in the Thames near Battersea Bridge.² This object, of which I received information from Mr. Franks, is now in the British Museum; it is of irregular oval form, 7 in. by 4 in. On the upper side there are three stamps, figured in the descriptions above cited. Two of them are alike, being oblong, and exhibiting the letters SYAGR. The R is reversed, and may be a monogram for RI. The other stamp is circular; in the centre is the Christian monogram composed of X P, around which are the letters SPES · · S · ·. This stamp is not unlike a coin-die in execution, and it is attributed by numismatists to the fourth century: it has somewhat of the appearance of an official seal, and Mr. Franks has suggested that the oblong stamp may refer to the distinguished individual Afranius Syagrius, secretary (*notarius*) to the Emperor Valentinian in 369, and consul in 382.³ This cake of metal, which weighs nearly 44 ounces, has subsequently been analysed, and proves to be an alloy of about four parts of tin to one of lead. Mr. Franks obtained subsequently another oval-shaped cake, found likewise in the Thames near Battersea; it was exhibited by him at one of the meetings of the Institute in 1862. It is of rather larger size than that already noticed; it measures $8\frac{1}{2}$ in. by $4\frac{1}{2}$ in., and weighs $110\frac{3}{4}$ ounces. This

² Arch. Journ. vol. xvi. p. 38; Proceedings, Soc. Antiqu. of London, vol. ii. second series, pp. 87, 235.

³ Another Syagrius, Mr. Franks observes, grandson of the *Notarius*, attained almost regal power in Gaul, and was de-

feated by Clovis at Soissons in 486. The style of the circular stamp above described accords better with the times of Valentinian. This cake of metal has been described in this Journal, vol. xxi. p. 169.

cake has likewise impressions of stamps on its upper surface; two of these are rectangular, and evidently from the same stamp; unfortunately the two impressions overlap, and the letters are, in consequence, to be decyphered with difficulty. On careful examination Mr. Franks succeeded in forming a restoration, as here figured, the portions that are illegible in one of the overlapping stamps being supplied by the other; with his wonted sagacity our friend has thus re-established satisfactorily the name SYAGRIUS, occurring likewise, according to his explanation, upon the cake before described. It will be noticed that on this second lump of metal the G and the R are, as on the former, both reversed. (See woodcut, orig. size.) The characters are rather more rude than in the other instance. The two other stamps are repetitions of a circular seal or brand, with the Christian monogram X P (Chi and Rho;) in the spaces seem to be rude indications of Alpha and Omega.



Mr. Franks observes that the rarity of any Christian relics of the Roman period in Britain adds greatly to the interest of these metallurgical specimens. With the exception of the tessellated pavement at Frampton, Dorset, published by Lysons in the *Reliquiæ*, and of a silver cup found at Corbridge near the Roman Wall, I am not aware that the Christian monogram has been found on any Roman monuments or relics in this country. It is not easy to suggest for what purpose such rude lumps of metal were stamped. The oblong stamp on the smaller cake resembles those on certain leaden seals of the Roman period found at Brough, Westmoreland (*Verteræ*), of which a considerable collection was submitted to the Institute, through the Rev. Canon Scarth, by the kindness of Miss Hill, of Appleby.* The cakes may there-

* Arch. Journ. vol. xx. p. 181. Several of these seals are figured in Mr. Roach Smith's Coll. Ant., vol. iii. pl. 33, p. 197; vol. vi. pl. 16, 17, p. 117; see also Pro-

ceedings Soc. Ant. Lond., first series, vol. iii. p. 222; and a memoir on the Roman station at Brough, by Mr. H. Ecroyd Smith, Trans. Hist. Soc. Lancashire, 1866.

fore, as Mr. Franks observes, have been the property of some officer employed in attaching seals to documents or merchandise, who may have marked with his official seals the supply of metal with which he was furnished for that purpose.

It has been stated that the metal of which the cake first found at Battersea is composed was considered to be lead. This proved to have been an error; the metal of both cakes has been analysed by Mr. C. Tookey, of the Museum of Practical Geology. The following is the result:—

No. 1.		No. 2.	
Tin	79.50	Tin	71.74
Lead	20.80	Lead	28.26
	100.30		100

The first, the smaller cake, it will be seen, contained rather more lead than that last found. The tin showed indications of a small quantity of copper.⁵

To the kindness of Mr. J. T. Blight, of Penzance, a zealous investigator of the remains of all periods in his county, from rude dwellings of a very ancient race, such as the constructions at Chysauster that he has described in this Journal,⁶ to the elaborate examples of Cornish church architecture, I am indebted for the following account of a singular inscribed block of Tin preserved in the Museum at Penzance. I acknowledge also with pleasure the friendly interest in my researches that he has shown in presenting the accompanying woodcut.

This relic, which seems to appertain to a much more recent period than those hitherto noticed, may doubtless be of considerable antiquity, and its interest is increased by the fact that it was found in one of those mysterious smelting-places of the West, the so-called Jews' Houses, which some have been disposed to assign to a very remote age. The discovery of the block of tin, of which, by Mr. Blight's kind courtesy, a representation is now for the first time given, has been recorded by the Rev. C. V. Le Grice, in 1846, in

⁵ Proceedings Soc. Ant., second series, vol. ii. p. 236.

⁶ Arch. Journ., vol. xviii. p. 39. See also Mr. Blight's Memoirs on Chambers at Boscaswell, and other remains, Journ. Roy. Inst. Cornwall, vol. i. No. 2, p. 7, and

on Castallack Round, vol. ii., p. 66, Oct., 1865; and his valuable notices of early Cornish Antiquities appended to his "Churches of West Cornwall," J. H. Parker, Oxford and London, 1865.

the Transactions of the Royal Geological Society of Cornwall. He remarked truly, that why the smelting-places were called "Jews' Houses" it is not easy to conjecture, unless it were because the Tin Mines and the Tin Trade, at the earliest period of their authentic History, were in the hands of the Jews. It was therefore supposed that the Jews were chiefly engaged in the metallurgical operations of still earlier times in Cornwall. The remains of several Jews' Houses have been discovered, generally very near ancient stream-works, or vestiges of the earliest mines, of which the works were all open to the sun. All that is usually seen is a narrow, shallow pit, with a small quantity of charcoal ashes at the bottom; frequently also a piece of tin mixed with earth or sand, often vitrified. According to tradition the earliest mode of smelting tin was a most simple process; a small excavation was made; sticks were piled together and the interstices filled with the ore; the pile was set on fire and the smelted metal flowed to the bottom.



Block of Tin, found at Trereife, Cornwall. Penzance Museum.

The smelting-place found at Trereife, in the parish of Madron near Penzance, was, however, of somewhat different character; in the middle of a high bank of compact clay a space was brought to light in form of an inverted cone, about 3 ft. wide at top, and 3 ft. high; at the bottom there was a flat stone about a foot in diameter, with small stones set round its edge; on this stone lay some unctuous ashes. The sides of the cone or furnace were of hard clay. On one side of the bank there was a small ravine by which a blast of air was conveyed, possibly by some kind of bellows, and

through which the molten metal was discharged. This conical furnace was full of earth-rubbish, and upon this was found the block of tin, weighing 26 lb.; it measures 16½ in. by 8 in.; the thickness at the top is 2 in. It could not have been smelted where it was found, but was probably deposited there with the intention of being removed subsequently. On examination of the block it is evident that it had been cast in a mould; on one side there are several letters in relief, hitherto unexplained, with a cruciform device, somewhat resembling the mediæval merchants' marks.⁷

Mr. Le Grice notices another block of tin found in the centre of a barrow near Lanyon, in Madron, about five miles from Penzance. It is not stated where this relic is now to be found. Also one found in the parish of Gwinear, near the east side of St. Ives Bay and the rich Herland mines. It weighed 34 lb. A third, of small size, weighing only 6lb., was brought to light in a stream-work at St. Just. Mr. Michell mentions two blocks found in a mine near St. Austell, each of them weighing nearly 26lb.⁸ Lastly, I may invite attention to an oval cake found at Chapel Porth in the parish of St. Agnes, and now in the Museum of Practical Geology in London. The deposit on which it lay had been washed by the "streamers" for the oxide of tin that it contained. It is probable that many others have been disinterred of which no memorial has been preserved.

I have thus endeavoured to gather together certain scattered particulars relating to the vestiges of ancient metallurgy that have come under my observation since the compilation of my former Inventory in 1859. I would refer any of our readers who may take interest in the subject to the observations by the learned President of University College, Toronto, Dr. McCaul,⁹ who has devoted special attention to the elucidation of the difficult section of Roman Epigraphy presented by the relics under consideration. His remarks

⁷ These particulars are extracted by Mr. Blight's obliging assistance from a memoir in the Transactions Roy. Geol. Soc. of Cornwall, vol. vi., 1846. Mr. R. Stuart Poole in a memoir on the Phœnicians and their Trade with Britain, notices these letters as "a Roman inscription and monogram." With all

deference to so high an authority, I must hesitate to accept the inscription as of so early a date. See Journal Roy. Inst. Cornw., Oct. 1865.

⁸ Manual of Mineralogy, p. 75.

⁹ Britanno-Roman Inscriptions, with Critical Notes; London: Longman, 1863, p. 32-55.

on the probability that some of the leaden *massæ* may have been specially prepared for transmission to Rome, with a view to their display in some imperial triumph, claim consideration. He points out that there were apparently three formulæ of construction used in the inscriptions, namely, the nominative, indicating, as Dr. McCaul supposes, that the object was taken as spoil; the genitive, denoting that the metal was the property of the emperors respectively, either as the produce of mines worked for their benefit, or, rather, as part of the imperial tribute; and the ablative, indicating the time when the metal may have been smelted.

The great interest that attaches itself to every fact connected with the production and export of Tin, has made me desirous to bring together all discoveries that may throw light on that obscure chapter of ancient metallurgy in Britain. The most remarkable, doubtless, of those discoveries is the block in form of a double galley, as has been conjectured, dredged up at the entrance of Falmouth Harbour, and figured formerly in this Journal.¹ Sir Henry James, to whom archæologists are so largely indebted for his reproductions of Domesday and of ancient documents, has pointed out the bearing of that discovery on the vexed question of the locality of the Ictis of Diodorus. He confidently places it at St. Michael's Mount.² The bifurcate block of tin is explained by Sir Henry as conformable to the type indicated by Diodorus, "the astragalus, or knuckle-bone,"³ to which he assures us, on the authority of Professor Owen, that the peculiar form is assimilated. It is natural, he observes, to inquire why this form was selected. "We are told that the traders resorting to Ictis there bought the tin from the natives and carried it to Gaul, over which it was transported on horseback in about thirty days; it was, therefore, necessary that the blocks should be cast in such a form, and be of such a weight, as to be conveniently carried both in boats for transport to Gaul, and then on

¹ Arch. Journ., vol. xvi. p. 39.

² Note on the Block of Tin dredged up in Falmouth Harbour; by Col. Sir Henry James, R.E., Director of the Ordnance Survey. London: E. Stanford, Charing Cross, 1863.

³ Or rather the huckle-bone, the pastern, or *talus*, of the heel, used by the ancients in games of chance instead of dice. In architecture as used by Vitru-

vius the astragal seems to have been a kind of ogive; it is commonly taken to be a moulding of a semicircular section, and thus the leaden pigs found at Carthægena, and which are semi-cylindrical in form, seem to have been regarded as types of the astragali of Diodorus. See Mr. Yates' Memoir on Mining Operations, Trans. Somerset Arch. Soc. 1858, p. 5.

horseback for the journey overland ; and it is impossible to look at this block of tin without being struck with the admirable adaptation of the form and weight for this double purpose, and also for the purpose of being easily carried by hand by two men, or slung for lifting it either into or from a boat, or on and off a horse." The diagrams that accompany Sir Henry's memoir fully support the conclusions thus ingeniously suggested. The bifurcate ends of the astragal seem well suited to facilitate transport like a hand-barrow, to use a homely illustration ; its general form would fit the curved bottom of the boat, the ribs of which coming up through the divided ends of the metal block, would prevent any shifting of the heavy cargo in a rolling sea, and, when disembarked in Gaul, a pair of these astragali would be precisely the proper weight for a horse, when adjusted on either side of a pack-saddle, by a simple contrivance for which the peculiar shape seems, as Sir Henry has shown, perfectly suited.

In connection with the important questions that are associated with these vestiges of the early occupants of the British Islands and of their industrial relations with distant nations, I may in conclusion refer to a memoir, before cited, on the Phœnicians and their trade with Britain, communicated to the Royal Institution of Cornwall by Mr. Stuart Poole. He has invited notice to the remarkable coincidence between the weights of certain blocks of tin found in Cornwall, including the "astragalus" last noticed, as compared with the ancient standard designated the later *Æginetan* or *Commercial Attic*. It may be asked, how it should occur that we find a Greek, not a Phœnician, system of weight—the Phœnicians, however, as Mr. Poole observes, would use the standard most useful in the markets of the Mediterranean, and the *Commercial Attic* was this for at least four centuries before the Christian era. If it can be demonstrated, by aid of such facts as I have sought to collect, that these blocks of metal were adjusted to a Greek system of weight, in a remote and comparatively uncivilised country, it is obvious, as Mr. Poole truly says, that we have an additional reason for supposing that the story of Phœnician trade with Britain is true.⁴

⁴ Journal of the Royal Institution of Cornwall; Oct. 1865, pp. 1-10.

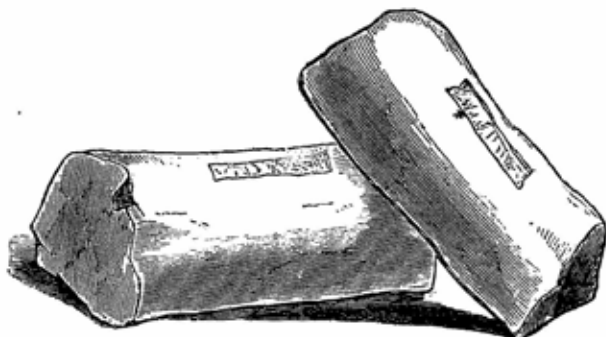
SUPPLEMENTARY NOTE ON A "MASSA" OR PIG OF LEAD AT BASLE.

WHILST the foregoing notices were in the printer's hands I have received, through the wonted kindness of our friend Dr. Keller, representations of the metallic *massæ* that exist in the Museum at Basle, as previously stated. It appears that these relics, here figured, had originally formed one pig



Inscriptions on a leaden pig found at Basle.

of lead that may have measured about 30 inches in length. It is, however, uncertain whether the block had been broken previously to the discovery, which occurred, Nov. 4, 1653,



Fragments of a leaden pig (Bleyklumpen) found at Basle.

in the garden of the convent of Klingenthal, in Little Basle, beyond the bridge over the Rhine. It has been noticed by Wagner, Bruckner, and several later writers;¹ more fully,

¹ Mommsen, *Inscr. Confed. Helvet. Lat., Mith. Soc. Ant. Zürich*, vol. x. p. 77, No. 10; 1854. See also Wagner, *Mercurius Helveticus*, p. 45, cd. II,

1688; the unpublished *Thesaurus Inscr. Ant.*, by Remigius Fesch, MS. in Publ. Libr. Basle; Bruckner, *Beschr. Hist. Merkwurd. der Landschaft Basel*, p. 2391.

however, by Mommsen, in his valuable collection of the Roman Inscriptions of Switzerland. That learned palæographer suggests that the two stamps, here shown, may have formed one inscription, as had been previously suggested by Orellius. The weight of one portion is given by Mommsen as $32\frac{1}{4}$ lib.; he gives that of the other, as " $34\frac{3}{4}$ libras ponderis ejus quo Basileæ ferrum appendere solent." The weight, as sent to me by Dr. Keller, on information received from the keeper of the Museum at Basle, slightly differs from this statement.¹

The following observations are given by Mommsen:—

"Partes hodie junctas olim unam massam effecisse et testantur antiquiores et demonstravit Rothius; inscriptiones duobus sigillis altera juxta alteram impressæ sunt spatio inter utramque interposito. Puncta complura apparent in superficie casu sparsa, ut nihil impediatur quominus in altera legatur Societatis Titi Lucretii."²

ALBERT WAY.

where the above-mentioned *massa* is figured; Roth, Roman Inscr. of the Canton of Basle, in Trans. Ant. Soc. of Basle, I. p. 23, 1843; and Orellius, Inscr. Helvæt., Mitth. Ant. Soc. Zürich, vol. ii.

¹ Weight of No. 1, as given by Dr. Keller, $31\frac{1}{4}$ lib., or $15\frac{3}{4}$ kil.; No. 2, 34 lb.

129, or 17 kil. 187 gr.

² Orellius had proposed to read the inscription thus, *in extenso*—*Societatis Sexti Lucretii*. "In massa plumbea lx. librarum." See Monumenta Minora, in the Collection Inscr. Helvæt. by Orellius, p. 210, No. 312; Mitth. Soc. Ant. Zürich, vol. ii.

SUPPLEMENTARY NOTE ON THE ANTIQUITIES OF SLESWICK.

By MR. WORSAAE.

SINCE my remarks were written (see page 189, *ante*), a very remarkable testimony in favor of my explanation of the so-called Moss-finds in Denmark has been found in the writings of Orosius (a historian living in the fifth century), and brought out by M. E. Beauvois in a review of Mr. Engelhardt's work on Nydam in the French newspaper "L'illustration," for 1866, (p. 264, No. 1236.)

After having stated (*Historia Adversus Paganos*, lib. v. ch. xvi. ed. Colonia, 1561, p. cci.) that the defeat sustained by the Romans, in the year 111, B.C. in the battle against the Cimbri and other nations near Arausio (now Orange), in the South of France, was so decisive that only a few escaped with their lives, Orosius gives the following striking account of the manner in which the victors treated the spoils: "Hostes binis castris atque ingenti præda potiti, nova quadam atque insolita exsecratione cuncta quæ ceperant pessum dederunt; *vestis discissa et projecta est, aurum argentumque in flumen abjectum, lorica virorum concisa, phaleræ equorum dispersitæ, equi ipsi gurgitibus immersi*, homines laqueis collo inditis ex arboribus suspensi sunt, ita ut nihil prædæ victor, nihil misericordiæ victus, agnosceret. Maximus tunc Romæ non solum luctus, verum etiam metus fuit, ne confectim Cimbri Alpes transgrederentur Italiamque delerent."

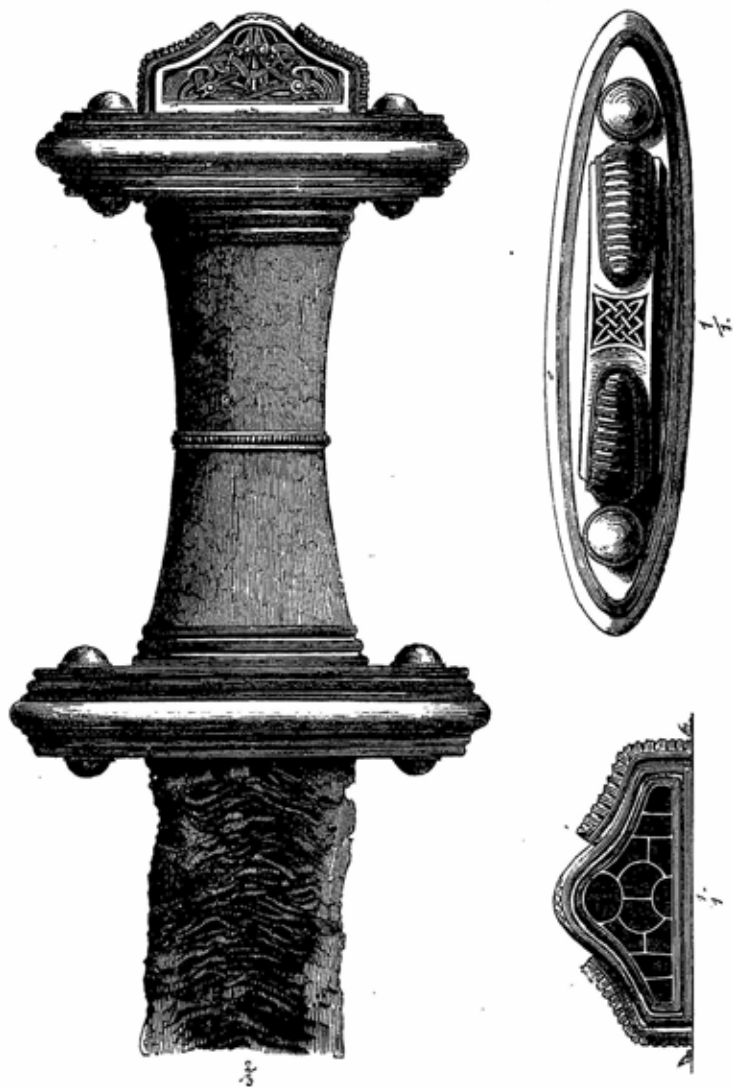
Remembering how systematically the objects discovered in our mosses in such large hoards have been destroyed, cut and torn asunder, before being deposited, and also to what degree warlike accoutrements predominate in the moss-finds—in some places (as in Vimose), largely interspersed with remains of horsetrappings and of the horses themselves—it seems impossible to look upon this passage otherwise than as containing a description of the very process to which these remarkable moss deposits owe their existence. It

cannot be supposed that the treatment to which the spoils from the Roman camp and the battlefield in this case were subjected, formed an exception to the rule, something peculiar to that occasion. What the "Barbarians" did was no doubt done in obedience to a custom of theirs, which bade them sacrifice the spoils of war by rendering them useless (*exsecratione nova*, etc.), and then immersing them in water, either in sacred lakes, rivers or outlets from the sea, or in the nearest suitable localities; and the testimony of Orosius, adduced by M. Beauvois, therefore appears to afford so strong a support to the explanation I have suggested and advocated in the text above, that this theory now seems almost to have acquired scientific certainty. It is so much the more striking, though I do not wish to lay undue stress on the circumstance, as the account of Orosius expressly refers to the Cimbri after whom the ancients gave the name of the Cimbrian peninsula to the peninsula of Jutland, in which these remarkable moss deposits were first discovered.¹

The sword represented by the cuts opposite has not been found in South Jutland, but may serve to illustrate the style of its time—the first division of the late Iron age—when compared with those of the early Iron age figured in Engelhardt's work and those of the conclusion of the Iron age figured above (p. 182). Almost all the objects of that period show similar serpent ornaments.

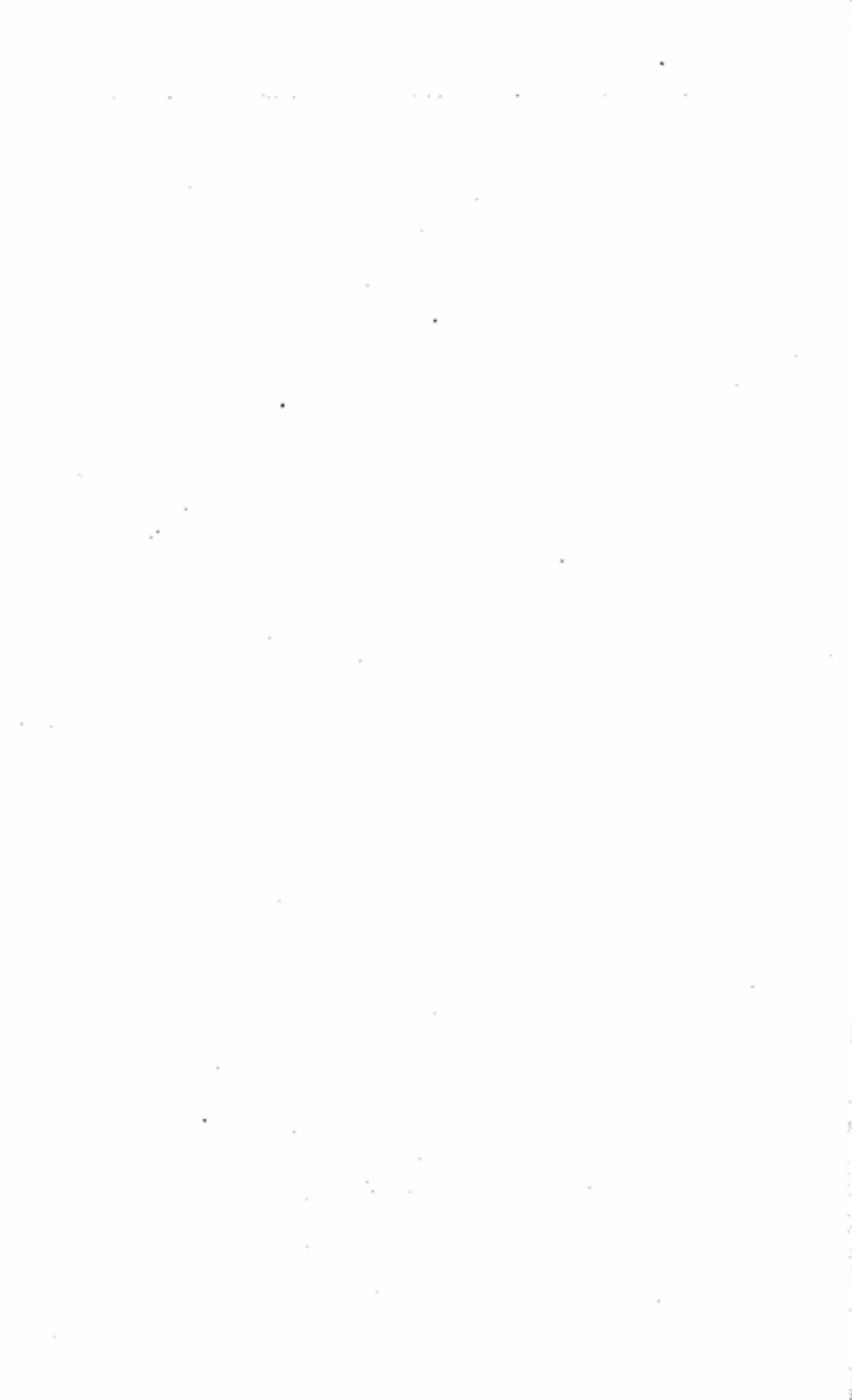
¹ With regard to the statement, that the men were suspended by the neck from the trees, Mr. Engelhardt observes that this was precisely the mode in which victims sacrificed to Odin were

killed; whence perhaps his surname, "The Lord of those that are hung." (Kragehul Mosefund, p. 18). Translator's note.



Sword found at Bildsømoose in Fyen. (Late Iron Age.)

Scale, of the sword handle, two-thirds original size details, same size as the original.



Original Documents.

NOTARIAL INSTRUMENT, SETTING FORTH A MANDATE OF THE ABBOT OF WALTHAM, ESSEX, AND THE PROCEEDINGS RELATIVE TO THE REPAIR OF THE CHURCH THERE. A.D. 1286.

From the Original, in the Public Record Office.

Contributed by Mr. Joseph Burt, an Assistant Keeper of the Public Records.

THE following deed is among some miscellaneous documents lately transferred to the Public Record Office from that of the Keeper of the Land Revenue Records and Enrolments.

It sets forth that on the 6th September, 1286, a certain instrument was duly executed at Waltham by the Abbot of Waltham Holy Cross, in the presence of witnesses, monishing those who were entitled to use the church there that it had need of repair, and requiring the Dean of Waltham to certify how the parishioners should respond to the monition. On Sunday, the 8th September, the feast of the Nativity of the Virgin, this instrument was read by the Dean to the parishioners assembled in the church, and explained to them in English by one of the clergy. The Dean then exhorted them at once to set about the work of repair. On Sunday, the 22nd of September, this exhortation was repeated; and on Sunday, the 29th of the same month the Dean executed his formal and official answer to the precept of the Abbot, certifying that he had exhorted the parishioners of Waltham, as required, and that he anticipated no opposition to the request.

This is told in the sententious language of a notarial instrument, in which every detail of the proceedings is most minutely described and set out; and the description of the Seals of the Abbot and Prior is also most carefully and circumstantially given.

This document fixes the precise date of the great alterations that were made in the fabric of the church at the end of the 13th century, when it was found that, in consequence of the bad foundations and other causes, the vaulting of the aisles had pushed out the aisle walls, and had become very dangerous. The new architect, therefore, took down the vaulting and threw the aisle and triforium into one height; he next tried to remodel the great arcade by throwing the nave arch and the triforium arch into one; however, luckily, this was found to be a very dangerous proceeding, so it was given up after the westernmost bays had been thus treated. Then a west front was added, and a very beautiful composition it was, so far as we can judge by what remains. The tracery of the windows is also very peculiar, and has an undulating look. When the present tower was built, in the time of Philip and Mary, the great western window was destroyed, and the tower built upon the cill; so we have no means of judging as to what it was like. During the late repairs, the top of the old western doors

came to light; they were of the same date as the rest of the work, and have been reproduced in the new doors. It was impossible to re-use them, as they had warped very considerably. Altogether, it must be confessed, that the inhabitants of Waltham in 1286 managed to secure the services of a very excellent architect, although he did great injury in an antiquarian point of view, by removing every bit of the old ashlar, filling in of the triforium, &c., that he could take away, without actually hurting the stability of the edifice.

The beautiful lady chapel is of a later date than the alterations to the west end,—the mouldings being much smaller, and much more numerous.

In nomine Domini Amen. Per presens publicum instrumentum omnibus appareat evidenter quod anno Domini millesimo ducesimo octogesimo sexto secundum cursum ecclesie Anglicane Indictione quartadecima sexto die Septembris in Abbathia Sancte Crucis de Waltham Ordinis Sancti Augustini Londoniensis diocesis ad Romanam Curiam nullo modo pertinente in viridario prope inferiorem aulam que Camera Abbatis appellatur in presentia mei infrascripti tabellionis et testium infrascriptorum ad hec specialiter vocatorum et rogatorum videlicet fratris Petri de Syringes canonici predictae abbatie dominorum Ricardi rectoris ecclesie de Netleswelle et Walteri de Norton ac Magistri Willielmi le Graunt clericorum et Johannis de Borham literati. Venerabilis pater Dominus Reginaldus Dei gratia Abbas predictae abbatie fecit quasdam literas quarum tenor de verbo ad verbum inferius annotatur suo sigillo proprio cera viridi per fratrem Henricum de Cybetey concanonicum et capellanum suum inibi tunc presentem sigillari. Et idem Abbas statim postmodum cepit et manu propria tradidit fratri Henrico de Templo concanonico suo Decano de Waltham predicta tunc personaliter ibidem existenti ipsas literas sic sigillatas injungens sibi vive vocis oraculo quod mandatum in ipsis literis contentum in omnibus diligenter et fideliter exequeretur. Quod se facturum promisit Decanus memoratus. Tenor vero earundem literarum talis est. Reginaldus permissione divina Abbas Sancte Crucis de Waltham dilecto sibi in Christo filio et concanonico fratri Henrico de Templo Decano de Waltham predicta salutem in auctore salutis. Cum de antiqua et approbata et hactenus pacifice observata consuetudine et in contradictorio iudicio optenta in regno Anglie parochiani quarumcumque ecclesiarum parochialium ipsas ecclesias parochiales cum ruinam minantur vel reparatione indigeant aliquali reparare et propriis sumptibus reficere teneantur et ipsas de novo construere si lapsum omnino paterentur, ac dicta consuetudo adeo fuerit notorie observata quod a quoquam inficiari non poterit seu negari et ecclesia parochialis de Waltham predicta ad quam tanquam ad parochialem habitatores et incole ville de Waltham predictae ac quam plures alii extra villam predictam infra limites parochie ejusdem ecclesie commorantes tanquam parochiani ipsius ejus cura ad nos specialiter pertinet recursum habuerunt ibidem omnia sacramenta ecclesiastica recipiendo de necessitate oportet reparari tibi auctoritate ordinaria qua fungimur in hac parte districte precipiendo mandamus quatenus omnes habitatores et incolas ville de Waltham predictae et omnes alios qui infra limites ejusdem parochie commorantur qui ad dictam ecclesiam de Waltham tanquam ad suam parochialem ecclesiam in omnibus suis sacramentis ecclesiasticis recipiendis tam ipsi quam eorum antecessores a tempore cujus memoria non existit habuerunt recursum et adhuc habent etiam hiis diebus se pro parochianis ipsius ecclesie gerendo

et qui parochianos ipsius ecclesie se nominant et tales ab omnibus de patria seu vicinio communiter nuncupantur moneas legitime et efficaciter inducas ac precipias eisdem quod dictam ecclesiam parochialem de Waltham predicta quam parochialem hactenus ut premittitur habuerunt et que eorum parochialis existit et que de necessitate ac utilitate refectione et reparatione indiget citra Octabas festi Sancti Michaelis proximo futuri reparare incipiant et ipsam reficiant et reparent ut tenentur a reparatione incepta cum inceperint nullatenus desistendo donec dicta ecclesia modo debito repararetur sub pena excommunicationis majoris quam ex nunc in personas eorum proferimus in hiis scriptis si hujusmodi monitionibus inductionibus et preceptis contempserint obedire. Volentes etiam cerciorari legitime si prefati parochiani hujusmodi monitionibus inductionibus et preceptis paruerint ut contra non parentes in hac parte nostrum officium exequamur tibi firmiter injungendo mandamus quatenus nos per tuas litteras patentes harum seriem continentes distincte et aperte citra festum Sancti Luce Evangeliste proximo futurum certifies de die receptionis presentium et de nominibus eorum quos resistentes et rebelles inveneris in hac parte et qualiter hoc mandat nostrum fueris executus. Datum apud Waltham die Veneris proxima ante festum Nativitatis beate Marie Virginis gloriose anno gratie millesimo ducesimo octogesimo sexto. Est autem predictum sigillum ipsius Abbatis quo idem Abbas fecit supradictas litteras sigillari oblongum. In ejus sigilli caractere est ymago cuj'dam Abbatis stantis super scabellum induti casula et aliis sacris sibi convenientibus cum mitra in capite tenentis manum suam dextram cirotecatam cum anulo in digito erectam ad dandum benedictionem et in manu sua sinistra cirotecata baculum pastorem et est proprium nomen supranominati Abbatis in illo caractere videlicet a latere dextro predictae ymagine sub brachio ejus dextro sunt hujusmodi littere REGI et a sinistro latere ejusdem ymagine sub brachio ejus sinistro sunt hujusmodi littere NALD' et prima littera et secunda ejusdem nominis sunt supra tertiam et quartam et quinta et sexta sunt super residuas alias litteras nominis ejusdem. In superiori vero parte circumferencie ejusdem sigilli est forma cujusdam stelle et post illam formam sunt in ipsa circumferentia hec verba S' REGINALDI DEI GRA ABBIS ECCLE SCE CRVCIS DE WALTHAM et sunt in predicta circumferencia a parte sinistra ymagine predicti Abbatis a superiori parte illius ymagine usque ad predictum scabellum hec predicta verba S' Reginaldi Dei gratia Abbatis et a parte dextra ymagine supradicti Abbatis a predicto scabello usque ad formam predictae stelle sunt hec predicta verba ecclesie Sancte Crucis de Waltham et est superior pars predicti baculi pastoralis in predicta circumferencia inter primam litteram et secundam proprii nominis predicti Abbatis scilicet inter 'r' et 'e' et est sub predicto scabello quedam subtilis arca in inferiori parte predictae circumferencie. Post hec prefatus Decanus personaliter constitutus anno et indictione supradictis octavo die Septembris scilicet die Dominica in festo Nativitatis beate Marie Virginis in parochiali ecclesia de Waltham predicta coram ipsius ecclesie parochianis tunc ibidem in copiosa multitudine congregatis in presentia mei infrascripti tabellionis et testium infrascriptorum ad hec specialiter vocatorum et rogatorum videlicet dominorum Walteri de Nortoft Radulfi de Tappelawe Magistri Nicolai Magistri scolarum de Waltham predicta Johannis dicti le Fevere Roberti de Glastonia et Willelmi de Offintoft clericorum et aliorum fecit suprascriptum mandatum sibi ut premittitur . . . ditum de verbo ad verbum publice recitari et Anglice exponi per Magistrum Willelmum le Graunt clericum tunc sibi personaliter

assistentem et statim postmodum idem Decanus omnes habitatores et incolas ville de Waltham predictae et omnes alios qui infra limites ejusdem parochie tunc commorabantur qui ad dictam ecclesiam de Waltham tanquam ad suam parochialem ecclesiam in omnibus suis sacramentis ecclesiasticis recipiendis tam ipsi quam eorum antecessores a tempore cujus memoria tunc non existerat habuerunt recursum et etiam tunc illis diebus se pro parochianis ipsius ecclesie gerendo et qui parochianos ipsius ecclesie se nominarunt et tales ab omnibus de patria seu vicinio communiter nuncupabantur auctoritate predicti mandati monuit in genere et efficaciter induxit ac precepit eisdem quod dictam ecclesiam parochialem de Waltham predicta citra Octabas festi Sancti Michaelis tunc proximo futuri reparare inciperent et ipsam reficerent et repararent ut tenebantur et quod a reparatione incepta cum incepissent nullatenus desisterent donec dicta ecclesia modo debito repararetur sub pena excommunicationis majoris in suprascripto mandato nominate sive late. Item idem Decanus personaliter constitutus eisdem anno et indictione vicesimo secundo die Septembris, scilicet, die Dominica in crastino Sancti Mathei apostoli in parochiali ecclesia de Waltham suprascripta, coram ipsius ecclesie parochianis tunc ibidem in copiosa multitudine congregatis in presentia mei infrascripti tabellionis et testium infrascriptorum ad hec specialiter vocatorum et rogatorum videlicet dominorum Ricardi Rectoris ecclesie de Netleswelle et Radulfi de Tappelawe Magistri Willelmi le Graunt Hervei de Borham Walteri de Dunstaple Johannis dicti Le Fevere et Roberti de Glastonia clericorum et aliorum omnes habitatores et incolas ville de Waltham predictae et omnes alios qui infra limites ejusdem parochie tunc commorabantur qui ad dictam ecclesiam de Waltham tanquam ad suam parochialem ecclesiam in omnibus suis sacramentis ecclesiasticis recipiendis tam ipsi quam eorum antecessores a tempore cujus memoria tunc non existerat habuerunt recursum et etiam tunc illis diebus se pro parochianis ipsius ecclesie gerendo et qui parochianos ipsius ecclesie se nominarunt et tales ab omnibus de patria seu vicinio communiter nuncupabantur auctoritate predicti mandati monuit et efficaciter induxit ut prius ac precepit eisdem idem quod pridem. Eodem vero anno Indictione quintadecima penultimo die Septembris scilicet die Dominica in festo Sancti Michaelis in predicta abbatia inter celarium et coquinam in presentia mei infrascripti tabellionis et testium infrascriptorum ad hoc specialiter vocatorum et rogatorum videlicet domini Jordani presbyteri ecclesie de Wormele domini Radulfi de Tappelawe et Hervei de Borham clericorum ac Johannis de Borham litterati prefatus Decanus postquam ecclesia parochialis de Waltham suprascripta que tempore predictae prime monitionis inductionis et precepti reparatione indiguit fuit competenter refecta ac etiam reparata quasdam litteras certificatorias quarum tenor de verbo ad verbum inferius annotatur sigillo Decanatus de Waltham predicta cera viridi sigillavit et statim postmodum idem Decanus personaliter accedens ad prefatum Abbatem qui tunc fuit in sua superiori camera in predicta abbatia in presentia mei infrascripti tabellionis et testium infrascriptorum ad hoc specialiter vocatorum et rogatorum videlicet predictorum domini Jordani Presbyteri ecclesie de Wormele Hervei de Borham clerici et Johannis de Borham litterati ipsas litteras certificatorias sic sigillatas tradidit in manus Abbatis memorati ipsum Abbatem per easdem litteras certificatorias certificans prout in ipsis litteris certificatoriis continetur. Tenor vero earundem litterarum certificatarum talis est. Venerabili in Christo patri Domino Reginaldo Dei

gratia Abbate Sancte Crucis de Waltham suus humilis et devotus concanonicus frater Henricus de Templo Decanus de Waltham predicta salutem obedientiam reverentiam et honorem debitam tanto patri. Mandatum vestrum sexto die Septembris anno Domini millesimo ducentesimo octogesimo sexto recepi in hec verba:—Reginaldus permissione divina Abbas Sancte Crucis de Waltham dilecto sibi in Christo filio et concanonico fratri Henrico de Templo Decano de Waltham predicta salutem in auctore salutis. Cum de antiqua et approbata et hactenus pacifice observata consuetudine et in contradictorio iudicio obtenta in regno Anglie parochiani quarumcumque ecclesiarum parochialium ipsas ecclesias parochiales cum ruinam minantur vel reparatione indigeant aliquali reparare et propriis sumptibus reficere teneantur et ipsas de novo construere si lapsum omnino paterentur ac dicta consuetudo adeo fuerit notorie observata quod a quoquam inficiari non poterit seu negari et ecclesia parochialis de Waltham predicta ad quam tanquam ad parochialem habitatores et incole ville de Waltham predictae ac quamplures alii extra villam predictam infra limites parochie ejusdem ecclesie commorantes tanquam parochiani ipsius cujus cura ad nos specialiter pertinet recursum habuerunt ibidem omnia sacramenta ecclesiastica recipiendo de necessitate oportet reparari tibi auctoritate ordinaria qua fungimur in hac parte districte precipiendo mandamus quatenus omnes habitatores et nicolas ville de Waltham predictae et omnes alios qui infra limites ejusdem parochie commorantur qui ad dictam ecclesiam de Waltham tanquam ad suam parochialem ecclesiam in omnibus suis sacramentis ecclesiasticis recipiendis tam ipsi quam eorum antecessores a tempore cujus memoria non existit habuerunt recursum et adhuc habent etiam hiis diebus se pro parochianis ipsius ecclesie gerendo et qui parochianos ipsius ecclesie se nominant et tales ab omnibus de patria seu vicinio communiter nuncupantur moneas legitime et efficaciter inducas ac precipias cisdem quod dictam ecclesiam parochialem de Waltham predicta quam parochialem hactenus ut premittitur habuerunt et que eorum parochialis existit et que de necessitate ac utilitate refectione et reparatione indiget citra Octabas festi Sancti Michaelis proximo futuri reparare incipiant et ipsam reficiant et reparent ut tenentur a reparatione incepta cum inceperint nullatenus desistendo donec dicta ecclesia modo debito reparetur sub pena excommunicationis majoris quam ex nunc in personas eorum proferimus in hiis scriptis si hujusmodi monitionibus inductionibus et preceptis contempserint obedire. Volentes etiam certiorari legitime si prefati parochiani hujusmodi monitionibus inductionibus et preceptis paruerint ut contra non parentes in hac parte nostrum officium exequamur tibi firmiter injungendo mandamus quatenus nos per tuas litteras patentes harum seriem continentes distincte et aperte citra festum Sancti Luce Ewangeliste proximo futurum certifies de die receptionis presentium et de nominibus eorum quos resistentes et rebelles inveneris in hac parte et qualiter hoc mandatum nostrum fueris executus. Datum apud Waltham die Veneris proxima ante festum Nativitatis beate Marie Virginis gloriose anno gratie millesimo ducentesimo octogesimo sexto. Hujus igitur auctoritate mandati omnes habitatores et incolas ville de Waltham predictae et omnes alios qui infra limites ejusdem parochie commorantur qui ad dictam ecclesiam de Waltham tanquam ad suam parochialem ecclesiam in omnibus suis sacramentis ecclesiasticis recipiendis tam ipsi quam eorum antecessores a tempore cujus memoria non existit habuerunt recursum et adhuc habent etiam hiis diebus se pro parochianis ipsius ecclesie gerendo et qui parochi-

anos ipsius ecclesie se nominant et tales ab omnibus de patria seu vicino communiter nuncupantur monui legitime et efficaciter induxi ac precepi eisdem quod dictam ecclesiam parochialem de Waltham, predicta quam parochialem hactenus ut premittitur habuerunt et que eorum parochialis existit et que de necessitate ac utilitate refectione et reparatione indiguit citra Octabas festi Sancti Michaelis tunc proximo futuri reparare inciperent et ipsam reficerent et repararent ut tenebantur a reparatione incepta cum inceperent nullatenus desistendo donec dicta ecclesia modo debito repararetur sub pena excommunicationis majoris in superscripto mandato vestro nominata sive late. Verum cum hujusmodi monitionem inductionem et preceptum fecissem publice et sollempniter in ecclesia parochiali supradicta prefati habitatores et incole ville de Waltham predictae et alii qui infra limites ejusdem parochie commorantur de quibus superius plenior fit mentio medio tempore de pecunia sua propria contribuerunt ad reparandum et ad reficiendum eorum ecclesiam parochialem supradictam. Ita quod eadem ecclesia eorum propriis sumptibus est competenter refecta ac etiam reparata. Nullos vero resistentes nec rebelles inveni in hac parte quin ipsa parochialis ecclesia sit ut premittitur refecta ac etiam reparata. In cujus rei testimonium has litteras sigillo Decanatus de Waltham sigillatas Venerande paternitati vestre transmitto patentes. Datum apud Waltham predicta die Sancti Michaelis anno Domini supradicto. Est autem predictum sigillum quo prefatus Decanus ipsas litteras certificadorias sic sigillavit oblongum. In cujus sigilli caractere est quedam crux ad modum crucis lignee habentis vestigia ramorum abcisorum stans super summitatem cujusdam arce habentis desuper hinc inde quasi flores sub qua arca est insculpta ymago hominis a pectore supra caputio deposito pendente manibus junctis erectis. Et est a latere dextro predictae crucis forma cujusdam lune et a latere sinistro ejusdem crucis est forma cujusdam stelle. In superiori vero parte circumferencie ejusdem sigilli est forma cujusdam stelle et post illam formam sunt in ipsa circumferentia hec verba: S^r DECANI: SCE C^rCIS DE WALTHAM.

Acta sunt hec que supradixi anno Indictionibus diebus et locis superscriptis presentibus testibus memoratis.

Ego Stephanus filius quondam Roberti de Scelphang^r Norwycensis diocesis auctoritate sedis apostolice publicus tabellio premissis que supradixi interfui et ea vidi et audivi et ut supra leguntur scripsi et in publicam formam ad preces et mandatum predictorum Abbatis et Decani redigi meo que signo signavi.

Indorsed. Instrumentum factum tempore Domini Reginaldi Abbatis nostri sexti de reparatione ecclesie parochialis de Waltham.

Proceedings at Meetings of the Archaeological Institute.

July 6, 1866.

THE MARQUIS CAMDEN, K.G., President, in the Chair.

THE Noble Chairman stated that, in pursuance of the recommendation made at a previous meeting (see p. 155, *ante*), the Central Committee had prepared a memorial to the Earl of Clarendon in regard to the Monastery of Monte Cassino, praying that the influence of Her Majesty's Government might be exerted, with a view to preserve that venerable institution from the operation of a measure lately brought before the Legislative Chamber in Italy, for the suppression of monasteries in that country. Lord Clarendon had responded to this appeal; informing him (Lord Camden) that some time since he had made, through Her Majesty's Minister at Florence, a representation as earnest as could with propriety be addressed by one Government to another upon its own internal affairs, describing also what were the feelings of the learned and enlightened classes in this country, on learning that Monte Cassino and some other monasteries were about to be confiscated. During the previous month, however, Mr. Elliot reported that the bill was being rapidly proceeded with, and that an amendment excepting the Convent of Monte Cassino was prepared by M. Massari, and summarily rejected. Under these circumstances, Lord Clarendon feared that little hope could be entertained of arresting the measure in question; he promised, nevertheless, to transmit the memorial of the Institute to Florence, for the purpose of its being submitted to the Italian Government.

On a subsequent occasion the following very gratifying assurance was transmitted by Lord Stanley to Lord Camden:—"It appears by the reply which Her Majesty's Minister at Florence has received to the representations which he was directed to make to the Italian Government in favor of the Benedictine Monastery of Monte Cassino, that, although it is impossible to exempt that establishment from the operation of the recent law for the suppression of conventual establishments, yet a provision of that law will admit of the Government taking measures for the preservation of the Monastery as an artistic monument, and that all that is possible will be done to save the monuments contained in it from injury."

In reference to a subject that has excited so much attention in this country, the following statement, for which we are indebted to Mr. James Yates, being an extract from a letter addressed to him from Florence by a distinguished Honorary Member of the Institute, M. Pulsky, cannot fail to prove acceptable to the readers of this Journal:—

“ Since you are interested in the Convent of Monte Cassino, I must tell you that it has been declared to be a national monument, to be maintained in its present state. The archives, library, and monuments of the Abbey remain intact in the building, and the Abbate Tosti will be appointed the *custode*, for the benefit of all scholars, who, like you and me, care for the monuments of old, even if they are monasteries. The Florentine Convent of San Marco, the late abode of Sant’ Antonino, the first reformer of prisons, of Fra Angelico and Fra Bartolomeo, the painters, of Savonarola also, is likewise to be preserved as a national monument, principally on account of the frescoes of Fra Angelico in the cells. The same measure is to be extended to all the monasteries the architecture of which is important for the history of art; the rest are to be sold to the highest bidder, unless a company could be formed to buy all the monastic property of the peninsula.”

The Marquis Camden then took occasion to remind the members that their approaching meeting in the metropolis, which had been favored with the special sanction of the Queen, would present features of unusual interest. Her Majesty had been pleased to direct that every facility should be given for the examination of architectural details, and also of the precious works of art, at Windsor Castle.

Mr. FREDERICK BOYLE, F.R.G.S., read a memoir on the ancient tombs of Nicaragua (printed in this volume, p. 41); he exhibited numerous diagrams, with a large collection of vases, and other sepulchral relics, that had been discovered in his researches, made in conjunction with Mr. Jebb. These remarkable vestiges of the early races have subsequently been deposited in the British Museum.

Professor BUCKMAN, F.R.G.S., sent a notice of the occurrence of flint implements and weapons in Dorsetshire, particularly on his own farm in the parish of Bradford Abbas, between Yeovil and Sherborne. He laid before the meeting a classified selection of specimens, comprising arrow-heads, some of them being delicately wrought, flakes, knives, and scrapers, portions of celts, cores of flint from which apparently flakes had been struck off, and numerous worked flints of less distinctive forms, but showing traces of the hand of man. These relics will be noticed more fully on another occasion.

The Hon. W. OWEN STANLEY, M.P., read a notice of certain ancient interments brought to light in Anglesey, on the estates of the late R. Trygarn Griffith, Esq., at Carreglwyd. Mr. Stanley likewise brought before the meeting a photograph of an elaborately ornamented urn found at Rhosbirio, in Anglesey, in a cist formed of slabs of stone. It is of the peculiar class designated, by Sir R. Colt Hoare and other antiquaries, drinking-cups, doubtless used as depositories for food in the tomb. The beautiful example described by Mr. Stanley will be figured hereafter in this Journal, with his notices of other early vestiges recently found in the same district.

Mr. THOMAS NORTH, Secretary of the Leicester Archæological Society, communicated the following account of an Anglo-Saxon Cemetery at Melton Mowbray, Leicestershire.

“ Archæological research has demonstrated that our Saxon ancestors used two kinds of interment,—cremation and deposit of the remains of the bones in an urn, and simple inhumation, or burying the body clad in its usual dress, and accompanied, according to the position, sex, &c., of the person, by weapons, or by personal requisites and ornaments. The second

of these modes of burial was, perhaps, that most prevalent; and it is well for archæological inquiry that it was so, because it is from the grave of the Anglo-Saxon that we learn almost all we know of the state of his civilisation, and so are enabled to form opinions—crude though they may be—of his mode of life, and personal appearance, as evidenced by the articles which—highly prized by him when alive—were, as marking the affection of relatives and friends, deposited in the grave after death. That the corpse was generally clothed, is shown by the discovery in some Anglo-Saxon graves of shreds of woollen cloth, mere fragments, but sufficient to prove the custom referred to; and the usage is further demonstrated by the frequent finding of the buckle of the girdle that encircled the waist, and from which, in the case of the men, the knife and sword were suspended. The objects found in the graves of the men, for to them—passing by the graves of the women—are these remarks restricted, are usually weapons of offence and defence. Taking, for example, a grave opened some years ago on the Chatham Downs—a well-known example—near the right shoulder was found a spear-head, the socket of which still contained a decayed portion of the wooden shaft; near the last bone of the vertebræ lay a bronze buckle, which had fastened the girdle; on the right side, near the hip, was a knife, with impressions of its case or sheath remaining upon it; between the thigh-bones lay the boss of the shield; on the left side lay an iron sword thirty-five inches in length; and at the feet of the skeleton was a vessel of red earth, which, in common with others found in Anglo-Saxon graves, is thought to have been appropriated to certain rites of purification by water or by wine. In addition to these ordinarily discovered articles, others are occasionally found, which do not here require notice. Although solitary Anglo-Saxon graves sometimes occur, it is clear that, as a rule, the interments were in groups or cemeteries. It is to such a cemetery existing in Leicestershire that I wish to call attention. About the year 1860, some men employed by Mr. Fetch of Melton Mowbray, found, when working for clay upon high ground on the north side of that town, a number of skeletons, and, in one or more of the graves some beads, a knife, and pottery, all of a character indicating their Anglo-Saxon origin. This discovery excited Mr. Fetch's curiosity. Upon inquiry he found that very many interments had been previously discovered, and the contents of the graves scattered by the workmen, who, being ignorant of the value of such relics, took no care of them; indeed the beads he just referred to were found in one of the cottages used by the children as toys. Again, in 1862, seven skeletons were uncovered, and were carefully examined. On that occasion no relics were discovered, and it was inferred that the bodies had been interred in a state of nudity. I am, however, inclined to think that they belonged to the lowest class, the serfs and bondmen, who would be buried in their ordinary coarse garments, without weapon or ornament. Every vestige of their dress would, in the lapse of centuries, pass away. It should be remarked that the skeletons were found upon the substratum of gravel, at a depth of about two feet from the surface; their position was east and west, the feet being towards the east. Nothing more, so far as I can learn, was discovered in this cemetery until a few weeks ago, when, on removing a further portion of the surface-soil in order to work the gravel and clay beneath, skeletons were again found, and with them the relics which I will describe, and which have been placed in my hands for minute inspection. The interments appear to have been

made with care and uniformity; the position of the skeletons was still about east and west, the feet being towards the east.

“In one grave were found a spear-head, a knife, and the boss of a shield. The spear-head, found on the right side of the skeleton, measures 15 in. from the point to the barb, which is $1\frac{1}{2}$ in. wide at its greatest width; its entire length from the point to the end of the socket is $22\frac{1}{2}$ in.—an unusual length, from 10 to 15 in. being, I believe, the ordinary dimensions. The knife is $8\frac{1}{2}$ in. long, and was found close by the ribs on the right side of the skeleton. The conical boss of the shield, being 3 in. high and $5\frac{1}{2}$ in. in diameter at its base, including the rim, with its brace $5\frac{1}{2}$ in. long, and the rivets for fastening it to the wooden shield, was found upon the centre of the skeleton. In other graves were found a second boss of a shield about the same size as that just described; also spear-heads, measuring respectively $16\frac{1}{2}$, 11, 11, 9, 9, and 6 in. in length, and three knives measuring respectively 5, $4\frac{1}{2}$, and 4 in. in length. In one grave was found an urn of the rude form and manufacture well known as belonging to the Anglo-Saxon period. It measures $5\frac{3}{4}$ in. in height, $5\frac{1}{2}$ in. in diameter at its mouth, and $6\frac{1}{4}$ in. in diameter at its central or widest part. It had been made apparently by the hand, of a dark coloured clay, and is imperfectly baked. The only attempt at pattern was made by drawing the finger or a stick vertically over the widest part of the urn, when the clay was moist, and so leaving a rude ribbed ornament. The last object claiming attention is a specimen of the double-edged Anglo-Saxon sword, $34\frac{1}{2}$ in. in length, and $2\frac{1}{8}$ in. in width, having the small cross guard which is sometimes found at the extremity of the handle of these swords, and which is presumed to have appertained to the hilt, which, being generally of wood, has in almost all, if not in all cases, disappeared. Hilts of metal are found, but they are rare. This sword also bears upon it fragments of the wooden scabbard, in which it was encased. In cutting away the earth sheer down for several feet, the end of this sword was found projecting through the section. It was carefully taken out, and the spot marked for further examination. I, in company with a friend, visited the spot, but though the surface soil was carefully removed, neither there, nor in several other places opened in our presence, were other further traces found of the Anglo-Saxon cemetery, in which, according to Mr. Fetch's computation, between fifty and sixty graves have been disturbed. There is, however, every reason to believe that other discoveries may hereafter be made.”

A memoir was then read by Mr. SCHARF, F.S.A., on the curious historical picture exhibited at South Kensington, and hitherto regarded as portraying Queen Elizabeth's Visit to Hunsdon House in 1571. It has been printed in this volume, p. 131, *ante*.

Mr. NICHOLS, having been requested to offer some observations upon the locality of Blackfriars, as represented in the picture, remarked that he did not attribute much reality to the landscape in the background, except that it may give a general idea of the detached buildings then existing in the fields and gardens on the Surrey side of the river. He regarded the grand house immediately behind the figures as the mansion of Lord Cobham, in which the Queen was entertained, notwithstanding that the procession is represented as already passing it by. This house, after the attainder of Lord Cobham in 1603, passed to Lord Hunsdon, and then acquired the name of Hunsdon House—whence the confusion with the Queen's visits to Hunsdon House in Hertfordshire. It was the same which became the

scene of a very memorable catastrophe in 1623. Being then occupied by the French ambassador, the Roman Catholics were accustomed to celebrate their services there on the upper floor; and having assembled in large numbers to hear a sermon from Father Drury, a favourite preacher, the floor gave way and many lives were lost. In the smaller engraving in the first edition of Queen Elizabeth's Progresses, an unwarrantable liberty is taken in elevating this house (in the picture) with an additional story, probably to make it more nearly resemble its assumed original in Hertfordshire. Inquiry being made where the house stood, Mr. Nichols replied that he believed very near the site of the famous Blackfriars Theatre (shown in the map by Playhouse Yard), in which Shakspeare was a partner; subsequently occupied by the King's Printing-office, and now by that of the Times newspaper in Printing-house Square. The small parish church of St. Anne, in which the nuptials of Lord Herbert and Mistress Anne Russell were celebrated, was burnt down in the fire of 1666, and the parish then united to St. Andrew in the Wardrobe, but its site is still occupied by a small charity-school, about which are several memorials of former interments.

Mr. SCHARF then proceeded to offer a short account of a remarkable interment lately brought to light in the choir at Westminster Abbey. Several relics found on the occasion were brought, by the kind permission of the Dean, for the inspection of the meeting.

"In the course of preparations for a new rearedos in Westminster Abbey, the workmen discovered a large coffin of Purbeck marble lying immediately below the pavement in the centre of the large space in front of the high altar. The foot of the coffin touched the basement or steps which had supported the altar. The contents of the coffin were examined in presence of the Dean and Subdean of Westminster, the President, Secretary and Director of the Society of Antiquaries, Mr. Gilbert Scott (architect to the Abbey), Mr. Joseph Burt, and others experienced in such matters. The coffin contained the remains of a human skeleton; the number of bones almost complete, in good preservation, and a portion of the upper jaw of a second person; but this fragment appeared to have been accidentally deposited with the rest, as the position of the bones indicated that the body had been considerably disturbed after the original interment. There was no lid, and the mass of pavement weighed down on the contents of the coffin. It was found that the bones had been taken out of the coffin and, with the exception of the head, replaced with the chest and knees downward. The bones of the arms were much displaced. Fragments of an ivory-headed pastoral staff, also a patin and chalice of common white metal, were found in the usual position at the sides of the body. The remaining space within the coffin had been filled up with rubbish, consisting chiefly of chalk, sand, and fragments of pavement tesserae. As each portion was discovered, and prior to removal, Mr. Scharf made an exact note of the position in which the various bones and fragments had been deposited. The skeleton was afterwards examined by Mr. Barnard Holt and Mr. T. Hillman, surgeons to the Westminster Hospital. It appears probable that the remains, at first supposed to be those of Abbot Ware, were more probably those of his predecessor, Richard de Crokesley, Abbot of Westminster from 1246 to 1258. Another coffin, also of Purbeck marble, and probably that of Abbot Ware, was subsequently discovered nearer to the northern extremity of the pavement, but no attempt was made to disturb it. The human remains were carefully replaced, the bones being laid in their proper

order, and finally the coffin was closed with a solid stone lid, strongly cemented, bearing an inscription prepared by the Dean, recording the date of discovery and the names of those present at the investigation."

Antiquities and Works of Art Exhibited.

By Mr. J. B. WARING.—A series of tracings from the archaeological publications of Europe illustrative of Stone Monuments, and the traces of ornamental design, as shown in ancient weapons, personal ornaments, sepulchral urns, &c., vestiges of races which have left behind them in these relics almost the only memorial of their existence, or of their social conditions. This collection has been formed to supply materials for a work that Mr. Waring proposes to publish, with the object of throwing light on obscure questions of archæological inquiry.

By Mr. ARTHUR TROLLOPE.—Two Roman relics, of unusual fashion, and in perfect preservation, found in 1865. One of the objects exhibited is a bronze *fibula* (here figured, original size) of elegant design and workmanship; the surface is partly enriched with lustrous bright white metal; the ground of the pretty ornament on the broad extremity appears to have been thinly encrusted with red enamel. It was found in the parish of St. Peter in Eastgate, Lincoln. Armlets and other personal ornaments thus plated with a thin coating of metal, supposed to be tin, occur, although rarely, amongst Roman remains in this country; *fibulae* thus ornamented are noticed in the Catalogue of the Museum formed at the Meeting of the Institute at York, p. 8. Such objects have sometimes been described as silvered; according to Pliny, both tin and silver were employed in producing "*incocilia*;" ornaments, however, of Gaulish workmanship decorated with *album plumbum* were, as he states, scarcely to be distinguished from silver. Pliny, Nat. Hist. lib. xxxiv. c. 17. The second object, probably of Roman date, sent by Mr. Trollope, had recently been found in railway operations on Canwick Common, near Lincoln. It is a bronze *volsella*, or tweezers, in very singular fashion, combined with a picker, possibly for the nails; it may, however, have been used as a piercer or *subula*, for various purposes, like the stiletto of our times. At one of its ends there is a semicircular projection with three nicks; upon this is hinged a pair of flat tweezers, part of which has been broken off; a thin plate between the blades of this implement falls into either of the nicks, so as to keep the tweezers either at right angles to the piercer, that serves as a handle, or extended entirely in a straight line. The ingenious construction of this little implement, so far as we are aware unique, may be best understood by the accompanying woodcut (original size). *Volsellæ* combined with the ear-pick and nail-cleaner are not rare; see Mr. Roach Smith's Roman London, pl. xxxiii.

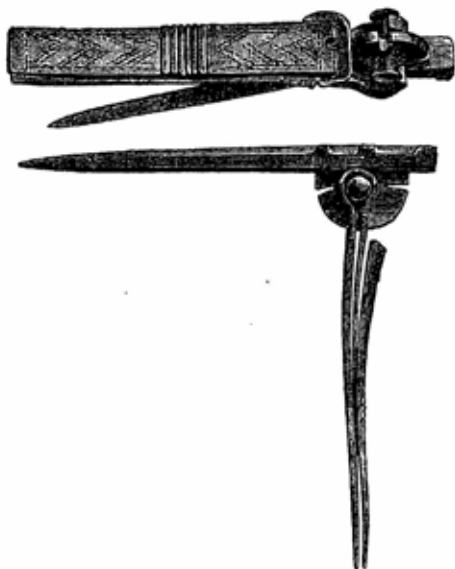
By Mr. HEWITT.—Two large maps of Eastern China, obtained in the country by Col. Gordon, R.E., whilst he was engaged in the campaign of 1864. They exhibit remarkable exactness of detail, although deficient in scientific construction; and they had been constantly used by Col. Gordon in his operations against the insurgents in those parts of China.

By the Hon. FULKE GREVILLE, through Mr. B. T. WILLIAMS.—A valuable roll relating to the lordships, manors, and possessions in the Marches of Wales, brought into the king's hands, in 10 Henry VII., and enrolled amongst the records of the Exchequer. This document, preserved amongst Mr. Greville's evidences, is of considerable interest in regard to the ancient condition of the Principality and the adjacent counties.

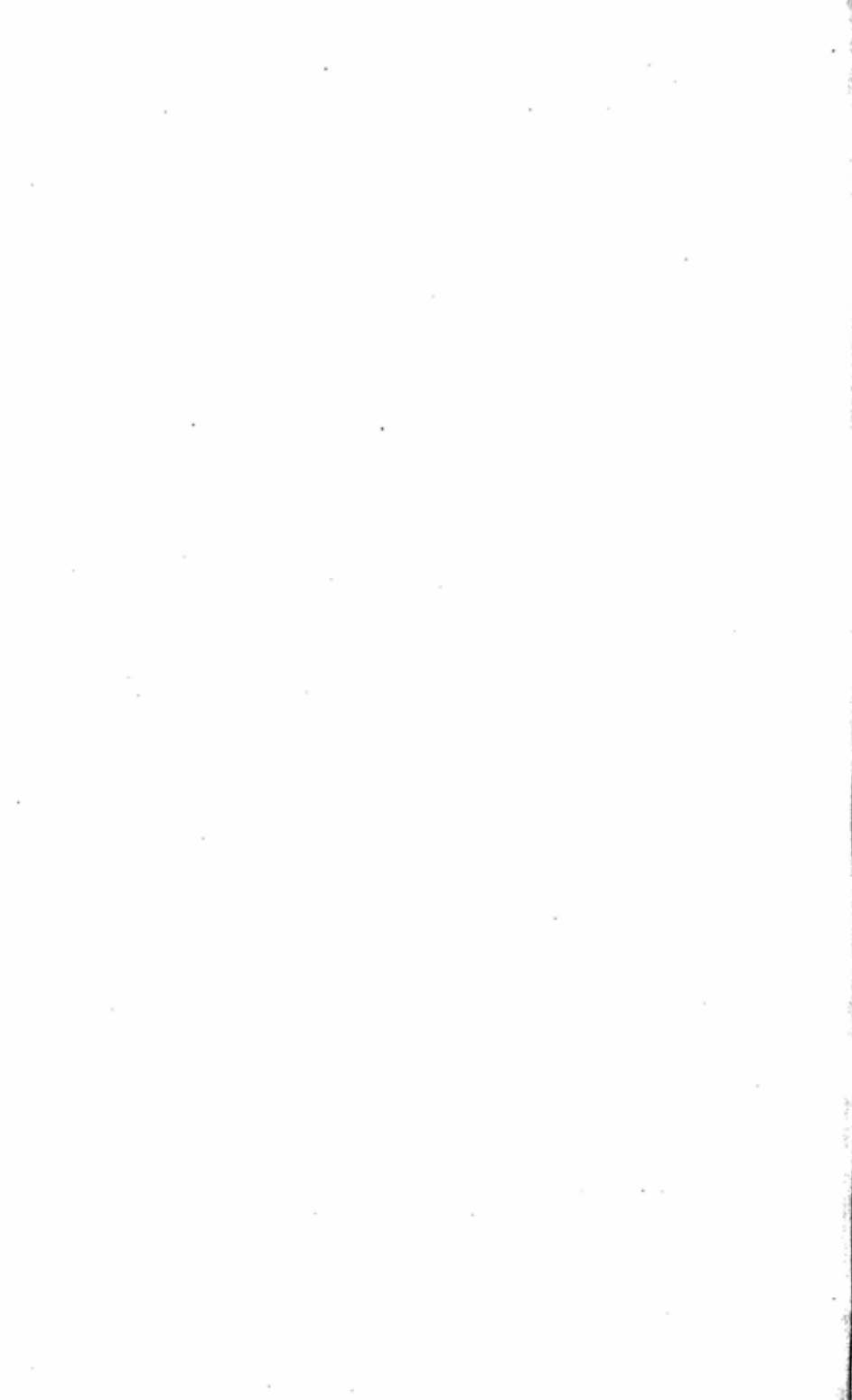
ROMAN RELICS FOUND AT LINCOLN.



Bronze Fibula tinned and enameled, found at Lincoln.



Bronze Tweezers and Picker, found on Canwick Common near Lincoln.
In the possession of Arthur Trollope, Esq.



PROCEEDINGS AT THE ANNUAL MEETING, 1866.

Held in London, July 17 to July 25.

THE Inaugural Meeting of the twenty-first Anniversary of the Institute was opened in the Guildhall of the City of London. The Hall had been very conveniently fitted up for the purpose by the directions of the Court of Common Council, by which court all the requisite facilities for the purposes of the meeting had been most kindly placed at the disposal of the Institute.

At twelve o'clock the Right Hon. the LORD MAYOR (Alderman Phillips, now Sir Benjamin Phillips) accompanied by Mr. Deputy Reed and many leading and influential members of the Corporation, took the chair, and opened the proceedings. He was very happy to have the honour of offering a very hearty welcome to the Archæological Institute in that ancient hall. It was very gratifying to find that the Institute, after travelling through the principal cities of the country during the last twenty-one years, now that it had arrived at its majority, had returned to pay its respectful acknowledgments to the city to which it owed its birth. As the chief magistrate of that city he felt greatly gratified upon that occasion. In the presence of such a company it would be presumptuous for him to occupy their time by further addressing them, and he would therefore simply offer them, in the name of the Corporation and of the general body of citizens, a most cordial and hearty welcome; assuring them that the citizens had a high veneration for the past, and that they desired to see the Institute attain the highest possible development and efficiency.

The noble President of the Institute, the MARQUIS CAMDEN, expressed his thanks to the Lord Mayor for the kind and cordial reception he had given to the Institute, regretting only that in that ancient and noble hall of that ancient city, their Honorary President, His Royal Highness the Prince of Wales, had not been able to stand in the place he then occupied, and return thanks on their behalf.

LORD TALBOT DE MALAHIDE next addressed the meeting. After referring to the many points of beauty and archæological interest in and about the fine hall in which they were assembled, he mentioned many in various parts of the City which would well repay their consideration. In reference to the improvements which were taking place in various parts of the City, he trusted that the chief historic features of the place would be preserved. He had heard it said that we should take a lesson from the capital of France, but he thought we should be sorry for it, for Paris was changing its historic bearing and was fast losing its character as one of the ancient capitals of Europe.

Mr. W. TITE, M.P., wished to add a few words as a citizen of London upon the value of those annual congresses which stirred up a love for antiquities, and drew attention to the desirability of their preservation. In the provinces immeasurable good had thus been done, and he trusted a like benefit would accrue from their present assembly in the metropolis. He believed he could not find a more appropriate place than that Guildhall to show the utility of the study of mediæval architecture, and of the effects of

such gatherings as these. Sir Christopher Wren had hidden the fine old roof of that hall with a plaster ceiling, and it was owing to the feeling which the Institute had been mainly instrumental in disseminating that the design of that fine old roof had been brought to light and was so thoroughly appreciated. London was now a city of offices ;—it had been a city of churches. Most of those present would be taken to see some fine examples of those churches ; in several of which works of conservation, if not of restoration, were being carried on. He wished to specify those of St. Bartholomew the Great, St. Helen's, Bishopsgate, and Austin Friars.

Mr. A. J. B. BERESFORD HOPE, M.P., said, that after having devoted themselves so long to archæological explorations in the provinces, he feared they would find themselves, on making London their field of operations, in the position of the *belle* of the country ball-room suddenly called upon to take the lead of the London season. The Institute had returned to the spot where it had its birth, and that spot was richer in archæological interest than perhaps any other in the kingdom. It had not ventured to take such a step without careful consideration and great preparation. They intended to enjoy a good and full archæological week, and the programme of each day's proceedings would, he believed, satisfy every one. Mr. Hope then detailed the arrangements of each day which, he said, would show that the Council had provided an ample and varied bill of fare.

The LORD BISHOP OF OXFORD next addressed the meeting. He said that if in this great city, the heart of a country, the process of renovation proceeded at too swift a pace to be agreeable to archæologists, the streets of London must be admitted to be in a most satisfactory antiquarian condition, or he would not have been so late in arriving at that meeting. For three quarters of an hour he had been on the road from Waterloo station, the delay being caused by a single cart with six deals which, by a judicious twist at intervals, effectually baffled all the ingenuity of his coachman, and kept a whole line of omnibuses and carriages at bay. Renovation had not in London destroyed all its monuments, nor was it so thorough as in some provincial places. He hoped the result of the present congress would be, by bringing to notice very many relics still preserved in obscure places, to cause the members and visitors of the Institute to regard London not only as the centre of novelties, but as the best preserver of antiquities.

The REV. E. HILL then further explained the intended proceedings of the week, and the arrangements for the excursions.

In acknowledging the cordial vote of thanks which was passed by the meeting, the Lord Mayor remarked that he trusted the citizens of London would not be entirely condemned on account of the luckless cart which had so impeded the access of the Right Reverend Bishop to the meeting. That difficulty showed the respect that was paid to the rights of the humblest individual,—a respect of which he trusted the citizens of London would always be proud. It was a difficulty owing to the jealousy of interfering with the liberty of the subject.

On the termination of the meeting, the President and a large party inspected the crypt under the Guildhall, the documents in the Town Clerk's Office, the City Library and Museum. Mr. Charles Baily, of the architect's office, had made many convenient arrangements for this inspection, and most obligingly pointed out the characteristic features of the architecture to the party. In the Town Clerk's Office, Mr. Woodthorpe had most kindly displayed a fine selection of documents from the City archives.

Among the MSS. were the charter of liberties to the City from William the Conqueror, granted in the first year after the conquest. It is a little slip of parchment, about 7 in. long by 3 in. wide, and expresses in the old English tongue that the citizens of London should keep the liberties they had in Edward's time; charters by almost every other sovereign from that period to Henry VIII.; the "Liber Albus;" the "Liber de Antiquis Legibus," and several other "Libri" of almost equal fame and value, the very sight of which was once most jealously guarded; ancient chronicles and customs, &c.

In the Library and Museum were shown a fine collection of maps and plans of London and the neighbourhood; many Roman and mediæval antiquities found in London; the objects used in the early civic pageants; a large collection of autographs; leaden "signacula" or pilgrims' signs. These had been most obligingly arranged by the Librarian, Mr. W. Overall.

From the Guildhall the party proceeded to the church of St. Bartholomew in Smithfield, now in the course of restoration under the direction of Mr. Slater and Mr. Lewis. Mr. W. TITE, M.P., gave a brief history of the church from its foundation by Rahere, the well-known minstrel and jester of Henry I., and recounted the story of his being led by a dream to build a church and hospital on this spot.

Mr. PARKER pointed out the existing evidences of the early church, and explained how the nave had been destroyed to make the present churchyard, and how the side walls of the lady-chapel still existed in the neighbouring fringe manufactory. The fabric had been lamentably ill used and encroached upon—portions even appropriated for private purposes. Several of the fine architectural features of the church and the remains of the early foundation were the subjects of discussion among the visitors, who expressed a general feeling of approval as to the works in progress.

From St. Bartholomew's the party next went to the church of St. Helen's, Bishopsgate. This was described by Mr. Wadmore, the architect charged with its restoration. It is one of the few City churches which escaped destruction by the Great Fire. The present building is a foundation of the 13th century, and is remarkable for its two parallel naves and its numerous tombs. Among these are the tombs of many City worthies, including those of Sir John Crosby, Sir Thomas Gresham, and the singular Francis Bancroft, whose coffin is not yet screwed down, as he left an annuity to the Mercers' Company to look occasionally at his body. From St. Helen's church, Crosby Hall was visited, where Mr. Williams, the lessee, most courteously received the party, and Mr. J. H. Parker obligingly pointed out the chief characteristics of the building, as the only existing specimen of the houses of the merchant princes of London in the fifteenth century. It affords a noble example of the mansions of the time, the hall being one of the finest that remains, and its original character has been less injured than is usual in the process of restoration.

The evening was reserved for a *Conversazione* at the Deanery of Westminster, where a very large party was most hospitably and cordially entertained by the Very Reverend the Dean and Lady Augusta Stanley. Not only were all the handsome reception rooms thrown open on this occasion, but the quaint old Deanery assumed its mediæval proportions, and embraced the Cloisters, the Jerusalem Chamber, and the College Hall in which the Westminster scholars now have their "commons."

Nicholas Litlington (Abbot from 1362 to 1386) re-built this portion of the Monastery, and the Deanery occupies the site of what was then the Abbot's house.

Litlington was executor of Cardinal Langham, whom he succeeded in the Abbacy of Westminster, and who left a vast sum of money for the fabric of the Monastery. With this money two of the present cloisters were re-built, the conventual buildings of the eastern side of Great Dean's Yard, and the Abbot's refectory, now the College Hall. Litlington's initials are still visible in the cloisters. Much of the roof of this Hall is Elizabethan, together with the music gallery which has been inserted.

In the Deanery are many portraits of deans, chiefly collected by Dean Turton. A portrait of Queen Elizabeth, said to have been presented by her to Dean Goodman, has been found to have been almost re-painted in Sir Godfrey Kneller's time, and to have been presented to the Deanery by Dean Willcocks.

In the course of the evening the party roamed over all the outlying portions of the Deanery, passing through the Jerusalem Chamber, the College Hall and their passages into the Cloisters, and peering into nooks and corners where some old vestige of the early buildings was to be seen, or some quaint or fine example of their architecture to be admired. With most considerate kindness the Rev. Lord John Thynne and other canons and residents had thrown open the doors of their gardens and houses for this purpose, and many curious groined chambers and cellars were lighted up for the inspection of the visitors. In the Jerusalem Chamber the Dean related shortly what was known about the locality, and pointed out its most remarkable features, illustrating his remarks by anecdotes of some of his distinguished predecessors. In his own library he had lately found what had every appearance of being a priest's hiding-place, traditionally said to have been used by Atterbury. In another closet it has been the usual custom, since the Restoration, to place the regalia on the eve of coronations.

During the evening a select body of singers from the Abbey choir, ably conducted by Mr. Turle, sang some choice old madrigals and part-songs in the College Hall.

Besides the various works of art and valuable drawings which were displayed in various rooms, among which were conspicuous the copies of the Bayeux tapestry, showing the earliest representation of the Abbey, a series of cases filled with selections from the muniments, and now for the first time publicly exhibited, were shown in the drawing-room. Among them were numerous finely-written charters to the Abbey from the time of King Edgar to Henry VI., including some whose authenticity is disputed. Conspicuous among these was the charter of the famous Dunstan in a most suspicious handwriting, but with a fine and genuine-looking seal. Among them were the records of the singular proceedings relating to the right to the body of Henry VI., which was claimed by the Abbot of Chertsey as having been rightly buried there; by the Dean of St. George's Chapel, Windsor, as having been moved there from Chertsey in obedience to the royal will, and by the Abbot of Westminster as having been promised to that establishment. The evidence in support of the Westminster claim is the only part of the proceedings known. Judgment was given in favour of the claims of Westminster, and another record of the house gives the actual sum paid for the removal of the body; but this fact requires corroboration. Among them too were several letters

of King Henry III. to his Master of the Works during the rebuilding of the Abbey relating to those works, and a reference to what seemed to be an estimate of the cost of the rebuilding. There were of course many deeds of feofment, &c. relating to "old Westminster," as well as to the Abbey itself. Many of these were of very early date, and had fine seals attached to them. Numerous "stars" of Jews, doubtless deposited for safety in the treasury of the abbey, and some original subscriptions of crosses by monks in the thirteenth century to the vows of the order of St. Benedict were also shown. The large and magnificently illuminated missal of Abbot Litlington was also exhibited. It is a very fine example of the art of the time and in excellent preservation, except where the service of Thomas à Becket is erased according to the proclamations of Henry VIII. and Edward VI.

The plate of the parish of St. Margaret was a great object of attraction in the drawing-room of the deanery. It consists of a loving cup, presented in 1759 to commemorate the successful issue of the suit relating to the fine east window of the church, which was objected to as infringing the statutes against pictures and images; and a remarkable object called "The Overseer's box." One of these functionaries had bought a fourpenny tobacco box of horn at Charlton fair, and from it had replenished his neighbour's pipe. In 1713 he left it to those officials who had established a fraternity. In 1720 an ornamental rim was added by his grateful successors—silver side-cases, embossed borders, engraved plates upon which Hogarth exercised his skill, followed at intervals; till (like a mediæval relic) the original box is almost lost under the heap of ornamental silver in which it is enshrined. It has now four large outer cases, and is much larger than an ordinary hat-box. These cases are composed of separate plates, on which are engraved emblematical and historical subjects, and portraits of distinguished persons. Among them are many most interesting subjects of local interest.

Wednesday, July 18.

A meeting of the Section of Primæval Antiquities took place in the theatre of the Museum of Economic Geology in Jermyn Street, at 10 A.M., where SIR JOHN LUBBOCK presided. The chairman delivered an inaugural address, which is printed in this volume, p. 190.

A meeting of the Section of History also took place in the theatre of the Royal Institution in Albemarle Street, where the Very Rev. the DEAN OF WESTMINSTER delivered an inaugural address. As the substance of this address will be published by the Dean in a volume to be entitled "Historical Memorials of Westminster Abbey," it need only be shortly referred to here. As an illustration of History, specially applicable to an archaeological gathering in the metropolis, the Dean gave that of the Abbey of Westminster, describing the wild condition of the "Isle of Thorns" at the earliest times when any known reference was made to it; when it was a dense thicket inhabited only by wild beasts, and a lurking-place for the outcast or robber. The first origin of Westminster is to be sought in the natural features of its position, which include the origin of London no less. The Thames is the parent of London. The rising ground on which the whole of the ancient city stood attests the reasons for its site. These hills were surrounded and intersected by greater or smaller streams of water flowing from the high ground on the north. Its gravelly soil and a pure spring of water would seem to have attracted the first settlers of Thorney

Island. Dr. Stanley then spoke of the manner in which the first church was built in that "terrible place," as an existing charter of the Abbey describes the locality; how the monastic body settled there grew and prospered; and how the original of the present existing structure was designed and built by Edward the Confessor. Westminster Abbey is, in its origin, the monument not merely of the personal piety, but of the personal character and circumstances of its founder. Edward the Confessor was a curious compound of gentleness and fury, of recklessness and mildness. He was the last of the Saxons. He was also the first of the Normans. His reign is the earliest link which reunites England to the Continent. The idea of a regal abbey on a hitherto unexampled scale may have been suggested by the accounts of the dedication of the Cathedral of Rheims.

After the Dean's address a paper was read by Mr. E. A. FREEMAN upon "King Harold" and the "College of Waltham."

Hitherto the foundation of Waltham has been spoken of as an abbey, and its inhabitants as monks. Waltham and its founder thus got mixed up with the crowd of monastic foundations, the creation in many cases of a real and enlightened piety, but in many cases also of mere superstition or fashion. The great ecclesiastical foundation of Earl Harold was something widely different. Harold did not found an abbey; Waltham did not become a religious house till Henry II., liberal of another man's purse, destroyed Harold's foundation by way of doing honour to the new martyr of Canterbury, and put an abbot and Austin canons in its place.

Harold's foundation, in short, was an enlargement of the original small foundation of Tovi the Proud. Tovi had built a church for the reception of the miraculous crucifix which had been found at Montacute; he made an endowment for two priests, and the Holy Rood of Waltham became an object of popular worship and pilgrimage. Tovi's estate had been granted to Earl Harold, with whom it was a favorite residence. The earl now rebuilt the small church on a larger and more splendid scale, calling in all the resources of architecture as developed in Normandy. He enriched it with precious gifts and relics, and increased the number of clergy to a dean and twelve canons, besides inferior officers. Harold made his foundation an educational establishment, and brought over an eminent German scholar and reformer, Adelard of Lüttich, to be its head. To establish such a foundation in the reign of a king who was almost a monk, was a bold deed. The college at Waltham stands in opposition to Westminster Abbey; and it was probably Harold's preference for the secular clergy that brought upon him the obloquy he undergoes at the hands of ecclesiastical writers. The foundation of the College of Waltham deserves to be dwelt upon as an era in our ecclesiastical history, instead of being slurred over as a monastic foundation of the ordinary kind.

The church was finished and consecrated in the year 1060, and the ceremony was performed in the presence of the king and queen, with most of the chief men of the land.

So this noble foundation became peculiarly identified with its founder, and it was to Waltham that Harold went for prayer and meditation in the great crisis of his life; it was at Waltham that his body found its last resting place; at Waltham his memory still lived fresh and cherished, while elsewhere calumny had fixed itself upon his name.

It is said that a mysterious warning of coming evil was given by the

Holy Rood of Waltham before the great struggle upon the field of Senlac, and two of the canons of the college had followed their founder to that fatal spot. They sought his body among the slain, and his mother offered a great bribe to the Conqueror for leave to remove it. But their search was in vain, till they were aided by Harold's former mistress. The body, thus found, was committed by Duke William's orders to William Mallet, a Norman knight, and by his care buried under a heap of stones upon the coast.

But William afterwards relented, and he allowed the body of his former rival to be removed from the shores of Sussex to his own minster at Waltham. Here he was buried by the high altar; but a later change in the fabric involved a translation of his body. For his tomb we now seek in vain, as we seek in vain for the tombs of most of the noblest heroes of our land. But what the men of his own time could do they did; the simple and pathetic tale of the local historian shows us how the fallen king was lamented by those who had known and loved him, and how his memory lived with those who shared his bounty without having seen his face.

A tomb called by Harold's name was shown in the Abbey of Waltham down to the Dissolution, and fragments of it remained to Fuller's time. That there must have been a good reason for this appropriation, and that the version as to Harold's fate presented by the writer is the more probable one, was given as the result of a careful criticism and comparison of authorities by Mr. Freeman.

In the afternoon an excursion was made (by the Great Eastern Railway) to Waltham Abbey. After a visit to the Cross the party proceeded to the church, where they were received by the incumbent of Waltham, the Rev. J. Francis, who had most courteously made every arrangement for their comfort. Here Mr. Freeman discoursed upon the structure; maintaining that there were more remains of the church built by Harold than Mr. Parker was disposed to admit. Mr. Burges, by whom the restoration of the church had been ably carried out, gave many explanations as to the original condition of the building and his proceedings.

An evening meeting of the Historical Section was held in the Royal Institution, when the Rev. J. R. GREEN read a paper upon "Thomas à Becket."

The writer remarked that in the reign of Stephen a great religious revival was going on, and in the revolution that seated Stephen on the throne, London first assumed that constitutional position it has since retained. After a reference to the condition of England at the death of Henry I., the circumstances of Stephen's arrival from France were noticed, and the apparent hopelessness of his venture till he arrived before London. The great importance of the foreign element among the trading and industrial classes in the City, even anterior to the Conquest, was discussed by Mr. Green. Gilbert Beket, the father of the martyr, was a member of this Norman colony, which greatly influenced opinion in London in favour of Stephen as against his Angevin rival. The religious element, which was struggling against the tyranny of the higher clergy, asserted its importance in the critical condition of affairs, and contributed much to the restoration of peace and freedom. London was proud of its religion;—it was then building its Cathedral, and other noble churches were rising up here and

¹ Printed in the volume entitled "Old London," which has been published by Mr. Murray, under the title London and her Election of Stephen.

there. London had become the definite place of the royal election, and the voice of her citizens was accepted as the representative of the popular assent. The folk-mote was summoned at the east end of St. Paul's, and amid the applause of all, the aldermen appointed Stephen king. And king he was.

During the same evening a concert took place at the South Kensington Museum, which was attended by many visitors to the congress; who in the interval inspected the fine collection of archæological objects deposited there.

Thursday, July 19.

A meeting of the Architectural Section was held at the Royal Institution, at 10 A.M.; Mr. A. J. B. BERESFORD-HOPE, M.P., in the chair. The chairman delivered an introductory address.²

The speaker, after dwelling upon the rich stores of antiquarian treasures which London possesses, adverted to the glorification of the capital in which all writers of the Elizabethan period indulged. No good archæological history of London yet existed, and he trusted the effect of this congress would be to supply that want. The way in which the surrounding villages had been swallowed up was especially worthy of consideration. The difference in that respect between London and continental cities was remarkable,—was it not owing in some degree to an Englishman's love of independence, whose every house was his castle? Partly to that feeling, and perhaps to the desire of a landlord to cover his land with houses before his rival, might be owing the great area of low inadequate houses. A long and lamentable list might be given of the objects of antiquarian interest which had been swept away by this advancing stream, and while many of these demolitions were doubtless called for by the course of modern improvement, many were wanton and barbarous, and sufficient care had not been taken to have the objects themselves accurately drawn and described.

Dr. GUEST followed with a paper on "The Campaign of Aulus Plautius," and the origin of London. Printed in this volume, p. 159.

At eleven o'clock a meeting of the Section of Antiquities was held in the theatre of the Museum of Geology, when Mr. S. BIRCH, keeper of Oriental, British, and Mediæval Antiquities at the British Museum, delivered an introductory address. This will be printed in the next number of the Journal.

Mr. DE SALIS then read a paper on "The Mint of Roman London," which will also be printed in the next number of the Journal.

At one o'clock P.M. there was an adjourned meeting of the Sections of History and Architecture in the Chapter House of Westminster Abbey. This fine ruin was expressly prepared for the reception of the meeting by the considerate attention of Mr. G. G. Scott, with the permission of the Commissioners of H. M. Woods and Works. A sum of money had been voted by Parliament for the restoration of this building, and the clearing out of the old wooden fittings and presses was expedited for this occasion. Divested of these ungainly incumbrances the building revealed all its fine proportions, and the relics of its rich embellishment by sculpture, mural painting, and encaustic pavement; and in this condition the associations of its past history came fresh upon the spectator unsullied by the too new and gay appearance which a restoration so often produces. Every avail-

² Printed in the volume "Old London" previously referred to.

able portion of its large area was filled by the members and visitors of the Institute to hear "The History of Westminster Abbey as a place of Royal Sepulchre," by the Very Reverend the DEAN.¹

The Abbey had been fifteen years in building. Edward the Confessor had spent upon it one-tenth of the property of the kingdom, and it was to be a marvel of its kind. It was the first cruciform church in England, from which all the rest of like shape were copied—an expression of the increasing hold which the idea of the Crucifixion in the tenth century had laid on the imagination of Europe. The end of the life of the Confessor was preceded by two remarkable visions—of the Seven Sleepers, and John the Baptist. In a few days after the solemn dedication of the Abbey, the King and Confessor breathed his last, amid a general feeling of gloomy foreboding. So urgent seemed the pressing danger, that on the very next day took place at once his own funeral and the coronation of his successor. As usual in the funerals of all our earlier sovereigns, he was attired in his royal habiliments: his crown upon his head; a crucifix of gold, with a golden chain round his neck; the pilgrim's ring on his hand.

In the Middle Ages the funeral of the sovereign was the eclipse of the monarchy for the time being. Till the time of Henry VII. the royal corpses lay in state, and were exposed on biers.

The sepulchral character of Westminster Abbey became the frame on which its very structure depended. In its successive adornments and enlargements, the minds of its successive founders sought their permanent expression, because they regarded it as enshrining the supreme act of their lives. The first beginning of the royal burials at Westminster is uncertain. It was the grave of Edward the Confessor which eventually drew the other royal sepulchres round it.

The Dean then adverted to the burials of the Norman kings in various places, and described the canonisation of the Confessor and the building of the shrine in the new and magnificent abbey of Henry III. He then passed in review the circumstances attending the funerals of Henry III. and his relations, of Edward I., Edward II., Edward III., Richard II., and their families. The tomb of Richard II. and his queen closes the circle of the chapel of the Confessor, and the direct line of the descendants of its founder, Henry III.

The Lancastrian house, which begins the new transitional epoch, had no place in this immediate circle. But Henry V. cherished a peculiar veneration for the Abbey,—not only did he give it gifts, but he added to the church some of its most essential features. Dying in France, Paris and Rouen both offered, it is said, immense sums of money to have his body buried there. But his known attachment to Westminster prevailed, and no king's funeral in the Abbey had ever been so grand. Room for his grave was created by a summary process, on which no previous king or abbot had ventured. The extreme eastern end of the Confessor's chapel, hitherto devoted to the sacred relics, was cleared out; and in their place was deposited the body of the most splendid king that England had down to that time produced. His tomb accordingly was regarded almost as that of a saint in paradise. He alone of the kings, hitherto buried in the Abbey, had ordered a separate chantry to be erected, where masses might be for ever offered up.

¹ The substance of this address will appear in the forthcoming volume of "Memorials," previously mentioned, under the title "The Royal Tombs."

Henry VI. was not willing to abandon his hold on the Confessor's shrine. In his time was probably erected the screen which divides the shrine from the high altar, with the legendary scenes from the Confessor's life carved on it. It was well recollected by the old vergers and workmen, how he visited the abbey at all hours of the day and night, to fix the place of his sepulchre. After much deliberation, he decided upon a spot at the back of the altar, saying, "Here methinketh is a convenient place." The space was traced out by the master mason, and the tomb was ordered. But "the great trouble" came on, and nothing was done. Henry perished in the Tower; thence his body was removed to Chertsey for burial; and thence to St. George's Chapel at Windsor. In the reign of Henry VII. it was decided to remove the body to Westminster, and the archives say that 500*l.* (equal to 5000*l.* of our money) was spent on its transference. But the language of the wills both of Henry VII. and Henry VIII. show that it still remains at Windsor.

The chapel which was to contain the elaborate tomb of Henry VII. was begun in the eighteenth year of his reign; and in that work the old generation was at once set aside. Six years afterwards the king was laid within the tomb. His funeral corresponded to the grandeur of his mausoleum. Within three months, the body of the mother of Henry VII. was laid within the royal chapel. She was always "Margaret Richmond," and her outward form of existence belonged to the mediæval past.

Not all the prestige of royalty could save the treasures of the Confessor's chapel at the Reformation. All thought of enlarging or adorning the Abbey was extinguished in the mind of Henry VIII., and he determined that his bones should be laid at Windsor beside his best-loved wife, Jane Seymour. Under the reaction of Queen Mary's time, the link with royalty was carefully renewed. King Edward VI. was laid in the chapel of Henry VII., and the funeral service of the reformed church was for the first time used over his body. No monument was erected to him, and the only memorial to the only Puritan sovereign of England was destroyed by the Puritans. The broken chain of royal sepulchres was thus pieced anew.

Anne of Cleves, Mary, Elizabeth, followed in their time, and each of their funerals has some special and distinctive feature. Then came the line of the Stuarts. In the tombs of the rival queens, Elizabeth and Mary Queen of Scots, the series of royal monuments is brought to an end. They are the last sovereigns in whom the gratitude of a successor or the affection of a nation have combined to insist on such a memorial. But the Abbey, so far from losing its attractions during the Civil Wars, drew unto it not only the lesser magnates of the Commonwealth, but the Protector himself. At the Restoration, all these were summarily ejected, and nothing marks the spot where Oliver Cromwell once lay, beneath the great east window. With the Restoration, the burials of the legitimate princes recommenced, but with a privacy and gloom contrasting with the joyous solemnity of the first entrance.

For about another century the roll of royal burials was continued in almost unbroken succession; ending with several members of the family of George II. With many most interesting details, relating to several of these ceremonials, the Dean concluded his lecture, which had been listened to with the most marked attention, and which was most warmly applauded at its termination.

After a short adjournment for refreshment, the Meeting re-assembled in King Henry the Seventh's Chapel, to hear a lecture by Professor Westmacott, on "The Sculptures in Westminster Abbey."¹

The Professor commenced by remarking that though the Abbey had been made the receptacle of the monuments of the most remarkable historical personages in the annals of England, the interest of the visitor is chiefly drawn to those remains which can be associated with the earlier foundation:—To the Gothic sculpture attention would be directed in the first instance. This would be judged simply as art, and the position it was entitled to in that respect. In that respect, Gothic sculpture must always occupy a very inferior position. But it must be judged as a peculiar and exceptional phase of art *sui generis*, and, with all its anomalies in the treatment of the human figure, there is evidence of unquestionable power and effect. It is matter of surprise that, considering the remains of pure ancient art in southern countries, no better ideas of the beauty and dignity appropriate to holy subjects and persons should have first illustrated the doctrines of Christianity. But all the arts were then in a state of movement, and had no fixed principles.

The sculpture in Westminster Abbey must be regarded:—First, in relation to the architecture, simply as decoration; Secondly, as "subject" sculpture; Thirdly, as "memorial" sculpture. The two latter classes would form the subject of that discourse. The Professor then discussed in detail the merits of the various pieces of sculpture falling under these heads. The screen of Edward the Confessor, executed in the reign of Henry VI., was especially remarked upon, and its artistic defects considered to be balanced by the tone of feeling it displays. The statues in the chapel of Henry VII. also came in for a considerable share of comment.

The monuments, beginning with those of the early abbots in the east cloister, were then passed in review, and their characteristics and artistic treatment considered. The principle exhibited in these works continued to influence monumental design when subsequently such memorials were extended to the noble and distinguished among the laity. The monument of Henry III. was remarkable for the simple *pose* of the statue, and the graceful arrangement of the drapery. In the adjoining statue of Queen Eleanor there is a calm, gentle expression of the face, the hands are designed with the utmost grace, and extraordinary elegance and beauty is displayed in some of the details. Portraiture was evident in that and in other royal monuments. The fine tombs of Edmund Crouchback and others displayed the fanciful and elaborate peculiarities of the Gothic style; but the later monuments were not proofs of progress in the style. In Torregiano's works in the chapel of Henry VII. is a mixture of the classical orders with certain Gothic traditions. This corrupt style preceded the Reformation. An "unfortunate" taste characterised the tombs of Elizabeth and Mary Queen of Scots; allegory was afterwards resorted to, the design was overlaid, and the religious sentiment of the work disturbed. Many examples of such a taste existed in the Abbey; as well as of the huge compositions of the Jacobean period. Of the later monuments, that to Mrs. Nightingale by Roubiliac was the most remarkable. It was full of pathos and touching sentiment, but it offends against propriety and good

¹ This lecture is printed at length in the volume "Old London."

taste. The greater portion of the later statues have a mere portrait character, and ought never to have been placed in the positions they occupy.

Returning to the chapter-house, Mr. G. G. Scott then delivered a discourse upon the architecture of the Abbey. Mr. Scott had hoped that on the occasion of a London Congress such as that now assembled, the same great master of archæological investigation would have elucidated the architectural history of our great royal Abbey, that had brought his labours to bear with such wonderful success upon the cathedrals and other great architectural monuments where the annual meetings of the Institute had been held during the last twenty years. Unfortunately, Professor Willis's health had suffered too much of late to permit him to undertake such a task. Mr. Scott then gave a sketch of the Saxon history of the Abbey, quoting (among others) the description in the life of the Confessor published in a lately edited chronicle. It was clear from these statements that the Abbey was viewed as the first of "Norman," rather than as the last of "Saxon" churches—the church was in general plan not unlike many Norman conventual churches; that it was cruciform, with a lofty central tower as at St. Alban's and Tewkesbury; that it had two western towers, as at Durham, Canterbury, and other Norman churches; and that it had (what was also common) an apsidal eastern end. It would appear that the aisles of the eastern end were in two storeys, both vaulted, as is often seen on the continent, and at Gloucester. The choir proper was under the central tower, as usual; and on the south side was a cloister, with dormitory, refectory, and offices adjoining in due order; while at the east was the Chapter House. Probably some of these buildings were not built in the time of the Confessor; but it is evident they had grown old by the early part of the thirteenth century, and that the nave was not finished till after the Confessor's death.

Happily there are by no means scanty remains of the Confessor's buildings. These are, the substructure of the dormitory, almost entire; portions of the dormitory itself; a wall of the refectory, including its arcading, and some fragments of the monastic offices. To these might be added, the bases of two of the great piers of the choir discovered within the last few weeks.

The rebuilding of the church by Henry III. is mentioned by every historian. The Lady Chapel was built twenty-five years before the rest, and was no part of the king's great scheme. Of the progress of the building of the Abbey nothing is known but from the fragments of the fabric rolls, which have been so well annotated by Professor Willis, and which show that the works progressed rapidly. There can be no doubt that the king intended the building to excel in beauty any other structure of the kind, and in this intention he fully succeeded. The style is in advance of that usual in England at the date, and all its details are extremely beautiful.

Mr. Scott then described the plan of the Abbey, its general construction, proportions, materials, workmanship, and details of the sculpture. He then discussed the position of the cloister, and the extent to which it was built by Henry III. After some remarks upon the question of the central tower, he referred to the other works of Henry III. in connection with the Abbey. A MS. in the British Museum, lately copied for the Dean and Chapter, had enabled him to identify the "Revestry" and St. Faith's

Chapel, with that known as the Chapel of St. Blaize. This MS. was full of information upon the early arrangements and customs of the Abbey.

Mr. Scott then described the Chapter House, and spoke of its design, its decorations, and its proposed restoration. The history of the fabric through the succeeding reigns was then continued, the points of difference distinguished, and the additions and alterations commented upon. Of the works in the Abbey during the reigns of Henry IV. and Henry V., and in the cloisters in the reigns of Edward III. and Richard II., many details existed among the archives. Much was done by means of the munificent bequest of Archbishop Langham, and by the industry and skill of Abbot Litlington, who had the task of executing his will. From time to time the works were continued till the Dissolution, when the towers were still unfinished.

At the conclusion of his discourse, Mr. Scott conducted the visitors to inspect the principal parts of the fabric to which he had made especial reference. The remains of the substructure of the dormitory were first examined. Entering the church from the cloisters a pause was made in the south transept; thence the party passed to the ambulatory of the eastern end, where the beautiful ancient "retabulum" was inspected, and the adjoining monuments were adverted to. The many beautiful and interesting objects in Edward the Confessor's Chapel next engaged the attention of the party. Here Mr. Scott showed the remnants of the bases of the Confessor's church which had been very lately found, and described recent discoveries in relation to the burial of abbots, &c.

After leaving the church Mr. Scott visited with some of the party the remains of the refectory, where the ancient hatches between the kitchen and the refectory had been laid open to view on that very day.

In the evening a meeting of the Historical Section was held in the theatre of the Geological Museum in Jermyn Street. The chair was taken by Lord Talbot de Malahide, and Mr. W. Hepworth Dixon read a paper on the "Historical Associations of the Tower of London."

The Tower of London may be called one of the most poetical monuments in Europe, its aspect being most striking to a traveller entering London from the sea. As a state prison, as a fortress, as a court of justice, as an arsenal, as a military museum, as a strong jewel-box, it fills the mind with picture, poetry, and drama.

Even as to length of days the Tower has no rivals among palaces and prisons. The oldest bit of palace in Europe, that of the west front of the Burg in Vienna, is of the time of Henry III. The Kremlin in Moscow, the Doge's palace in Venice, are of the fourteenth century. The Seraglio in Stamboul was built by Mahommed II., Pope Borgia built the oldest part of the Vatican, the old Louvre was commenced in the reign of our Henry VIII., and at the time of our Restoration Versailles was yet a swamp. Neither can the prisons which have earned any large celebrity in history and drama—with the one exception of St. Angelo in Rome—compare with the Tower of London.

From the reign of Stephen to that of James II., the square white edifice in the centre, known as Julius Cæsar's tower, was a main part of the royal palace of our English kings; and for that large interval of time its story is in some measure that of our English society and of our English court. Here were the royal wardrobe and jewels, the mint, the courts, the queen's gardens and royal banqueting-hall. The great prison was begun by a

prelate, and (as far as we know) the first prisoner was also a prelate. He was Ralph Flambard, Bishop of Durham and Lord Chancellor. For his many crimes he was seized, on the death of Rufus being known, and lodged in the Tower; whence he escaped by making his watchers drunk. A window is shown as that from which he descended by means of a rope.

In King John's time the Tower-warden irritated the people much by overstraining his right to fish in the river. Kidels—weirs fitted with nets—were used, greatly to the injury of the fish and of trade. Richard I. solemnly gave up his right, but the Tower-wardens still greatly vexed the citizens and the fishmongers. The access to the courts in the Tower was also the subject of many discussions between king and people—the old English practice for the courts to be open and unguarded being in jeopardy. The Wakefield Tower, in which was a gateway that had been a puzzle, was connected with the great hall where the Common Pleas was held—which explains the puzzle.

In the reign of Henry III., Richard, King of the Romans, was confined in the Tower by the barons after the battle of Lewes, together with Queen Elinor. Edward II. and Isabella kept a splendid and unhappy court in the Tower. Roger Mortimer was then a prisoner, and during Edward's absence he obtained access to Isabella, and afterwards escaped. The story of their guilty passion and their tragic end is the most singular and most shameful episode in our royal history. During the Wars of the Roses the Tower was the magnificent home, sometimes the miserable jail, of our Yorkist and Lancastrian princes. Among the presents here given by Henry VII. to Elizabeth of York, his queen, is a book in which we have the earliest known view of the Tower. One of the most remarkable prison stories was that of Sir Henry Wyatt and the cat, who came into his dungeon, stayed with him, and bettered his scanty fare by catching pigeons for him. A picture of Sir Henry with his faithful cat is in the Exhibition of Portraits at South Kensington.

The imprisonment of the great Duke of Norfolk and his gifted son, Lord Surrey, were then spoken of by the lecturer, who, reverting to the plan of the Tower, divided it into three parts or groups, and dealt in detail with the points of interest in each.

The first group comprised the outer walls, gates, &c. The famous Water Gate, or Traitor's Gate, was by far the most remarkable of these, and the entrance of many a prisoner of note was illustrated by some episode or other. Opposite to this gate was the Bloody Tower, the entrance to the Tower proper, which formed the second group; and Mr. Dixon put together with great force and clearness the evidence which convinced him that the bones found in the White Tower were the bones of the princes murdered by Richard III., which had been removed from the Bloody Tower. In the Bloody Tower the most notable prisoners were Thomas Cranmer, Edward Courtney, and Sir Walter Raleigh. The latter was confined there twelve years, and it was the scene of his historical labours, of his chemical experiments, and of his political conversations. In the council chamber adjoining was a torture room, where James I. came down to question Guy Faux. The Bell Tower, the Beauchamp Tower, and the other towers of the fortress, were each referred to in detail, together with many of the celebrated and touching events of which they had been the scene.

The third group, or division, was the White Tower. This was the centre of our national life from the accession of Stephen to the flight of

James II. Here were lodged our royal prisoners, and our foreign captives. With a full account of the most engaging of these prisoners, Charles of Orleans, one of the captives of Agincourt, Mr. Dixon concluded his essay.

On the same evening a meeting of the Historical Section was held at the Royal Institution, when Mr. G. Scharf read a paper "On the Historical Paintings at Windsor and Hampton Court."²

Mr. Scharf commenced by giving a short account of the existing remains of early royal portraits in this country down to the period of the formation of the catalogue of the pictures of Henry VIII., included among his household goods, and now in the Public Record Office. A similar inventory, five years later, is in the British Museum, which contains some additional pictures. Mr. Scharf gave extracts relating to the works of art mentioned in this inventory, and identified a considerable portion as at present existing—chiefly at Hampton Court and Windsor. The title of part of the inventory, "Hangings," gave the lecturer the opportunity of speaking of the tapestries in the royal collections. These collections received considerable additions in the reign of James I. Both the sons of that king evinced an early interest in art, and agents were sent abroad for the purchase of pictures. The result is shown in the great catalogue of the royal pictures, &c., at Whitehall Palace, compiled by Vander Doort in 1639. This was carefully analysed by Mr. Scharf, who gave much curious information as to its contents, and referred to their present localities and condition. By the Commonwealth the royal collections were sold and dispersed, but at the Restoration many of the pictures were recovered. The catalogue of the pictures of Charles II. and James II., signed "W. Chiffinch," was the means of identifying many pictures in the earlier collection as returned to royal possession. Mr. Scharf commented at some length on several entries in this catalogue, and continued his account of the collections at Westminster, Kensington, Hampton Court, Greenwich, and Windsor Castle down to the present time.

Friday, July 20.

A meeting of the Architectural Section was held at 10 A.M. at the Royal Institution, Mr. A. J. B. BERESFORD HOPE, M.P., in the chair.

Mr. J. H. Parker gave a discourse upon the Architectural History of Windsor Castle.

The situation of this Castle points it out as a natural position for a fortress in primitive times. All primitive fortresses consist of earth-works, and the more ancient are constructed on the bolder scale. The wide and deep fosses and the high artificial mound at Windsor indicate an early date. Roads were at the bottoms of the fosses, and on the bank between them were buildings, first of wood, afterwards of stone. The outer fosse was much deeper than the other, and subterranean passages connected the two. The outer fosse is recorded to have been of the usual dimensions of a Roman fosse 100 feet wide and 30 deep. In the third century a change took place in Roman practice of fortification, and the works at Windsor would have been so made, had they been of the period of King Arthur, as was believed in the reign of Edward the Third. They are more likely of the time of Caractacus, when the Britons constructed so many fortresses.

² This lecture is printed at length in the volume "Old London," under the title "Royal Picture Galleries."

The Saxons continued to use the fortified places of the Britons, retiring to them for protection. Edward the Confessor is believed to have resided chiefly at Old Windsor, and to have retained the Castle in case of need. The ancient moats and low mounds at Old Windsor are believed to belong to a period before the Roman Conquest, and it is probable the Romans had a camp there. Throughout England we find a Roman camp in the valley a mile or two from a British Castle or Town, where they stationed themselves when they laid siege to it. The manner in which Britain was then defended was similar to that practised by the New Zealanders of our own time, a New Zealand Pah being very similar to a British fortress.

The castles of the Roman barons who came over with William the Conqueror were of earth-works and wood only. The earliest stone keep in England is that of Bishop Gundulph at Malling in Kent, which was built after the Conquest. There is no evidence of William the Conqueror having built Windsor Castle. The passage in Domesday rather proves that there was a castle previously existing on this spot in the manor of Clewer, which had been inhabited by Earl Harold in the time of the Confessor.

William the Conqueror exchanged lands with Westminster Abbey to retain Windsor Castle. William Rufus held his court, and had a prison at Windsor. Henry the First made Windsor his habitual residence. His buildings there would be chiefly of wood, but some of the fragments of stone carving found there *may* be of his time. In Stephen's time Windsor is mentioned in the treaty of Wallingford as a fortress of importance.

The first mention of Windsor Castle on the great exchequer rolls of account is of the reign of Henry the Second, and it relates to the vineyard. The buildings of this reign cost £800, and many fragments of that period have been found. Part of the gateway still exists, and the lower part of the south wall of the Upper Ward. The postern was arched with stone on chalk walls, and has door-ways of this period.

In the reign of Henry III. begins the history of the existing Castle. The Lower Ward was then built of stone, of which many portions yet remain. The fortifications are built on the old walls, which are faced and altered. The lower part of the Clewer Tower is almost unaltered, and shows a prison chamber of the period. The entrance to it (which remains) was from the road at the bottom of the inner ditch; the inner windows were into the same road; the outer are loop-holes only, with a cell for a prisoner in each. Each Tower was a separate dwelling-house. There is frequent mention of a *trébuchet* or catapult, which was probably placed on the Clewer Tower. The details of the Royal Chambers, &c., near the wall, are minutely given in the records. The King's Hall is now the Chapter Library; the other chambers have been destroyed. Of the Chapel part of the North wall is preserved; the Galilee is the passage at the East end behind the altar of St. George's Chapel. The West end of the Chapel has been rebuilt several times, but the measurements continue the same as in the early accounts. The Arcade in the Cloisters was protected by a wooden roof only,—a painting of a king's head of the time of Henry III. is still upon the Cloister wall. The Chapel has been altered at various times, and is now the Royal Tomb-house, restored as a memorial to the late Prince Consort. In the reigns of Edward I. and II. the works in progress were continued, and a Bowe or lunette made.

The reign of Edward III. is one of the most important in the history of Windsor Castle. A large part of the existing Castle was built at that

period, and the accounts have fortunately been preserved, so that we have a great mass of materials for the history of the fabric during this reign. In the first year a survey was made of the Castle, which shows the extent of repairs necessary. In the eighteenth year, the Round Tower was entirely rebuilt from the ground for the purpose of holding the Round Table, and we have every item of the expenditure on that account recorded; including that for repairing the bridges over the fosses lest they should be broken by the carriage of the great Round Table; *i.e.*, the stones for the Tower. There were then seven bridges over the fosses, all of which can be traced; and, of course, so many gates. The Round Tower was completed in about ten months, at an expenditure of about £10,000 of our present valuation. It consisted of a shell of stone with an open court in the centre in which was placed the table, protected by a timber lean-to covered with tiles projecting from the walls. At Carcassone and Amboise similar buildings existed, said to have been built in rivalry to that at Windsor. The work at Windsor was hurried, so that the new order of knights might dine in it on St. George's day following. As altered by Wyatville, the Round Tower is nearly double its original height, a brick wall being built within the stone wall to carry the additional weight.

Edward III. did not build a new chapel at Windsor, but only completed that begun by Henry III., and made additions to it. There are many very curious and valuable notices in the accounts relating to the furniture and decorations of this chapel, which appears to have been of two storeys. The accounts for building the Cloisters are also very full and interesting. Among the accounts are many entries for painting the vaults below the Treasury (now called the Aerary) or Muniment Room, which was probably the porch to the Chapter House then building, and which the knights used as a vestry. Of the Chapter House itself there are many notices, though now all traditions of it are lost. The house for the College of Canons, now the Deanery, was built during the 25th and 26th years of Edward III., but it has been very much altered and added to. The canons' houses were evidently timber buildings, and probably covered with thatch. An entirely new hall and offices were built in the upper bailey where the Royal apartments now are, and the fine series of vaults under these apartments are the remains of William of Wykeham's work. The small tower erroneously called "King John's Tower," is doubtless the "Rose" Tower of these accounts, upon the beautifying of which much expense was bestowed. The new Royal Apartments of Edward the Third were richly decorated with painting, tapestry, and painted glass.

The important works carried on during the reign of Edward III. were not completed at the death of that monarch, and they were continued by his successor. The accounts, however, show that they consisted chiefly of the necessary offices and repairs to existing buildings. The King resided there very often, and indulged much in the sport of hawking. Geoffrey Chaucer was clerk of the works of the chapel in his reign.

For the reigns of Edward IV. and Henry VII. the records of the works at Windsor were considerable, and of these Mr. Parker gave a succinct account, applying the entries among them to the structures themselves. With the reign of Henry VIII., during which little was done at Windsor, the architectural history of Windsor might be said to close.

Professor WILLIS then gave an account of the Architectural History of Eton College.

The Professor prefaced his account with some introductory remarks on the general history of colleges and their growth. The Universities were at first corporations of learned men, the teachers in which instructed by means of lectures, the students being obliged to find lodgings for themselves. Soon, however, generous persons gave funds to assist poor students. A more definite shape was then assumed by these institutions; and lodgings were provided, that the morals and manners of these students might be under superintendence and control. The next step was to purchase houses, endow them, and provide them with statutes. Thus arose the communities termed colleges, residing in buildings called the *Domus* or *Aula*, which at first contained little else than chambers, &c., to lodge and live in. The first of these colleges was Merton College, Oxford, founded in 1264; others followed at intervals up to 1379, when William de Wykeham erected the first college complete in all its details, and so well organized as to serve as a basis for all subsequent erections. His plans included a preparatory school at Winchester, from which the members of his Oxford College were to be selected. This led to the consideration of King's College, Cambridge, and its appendage, Eton.

The Professor gave a touching account of the effect of the misfortunes of Henry VI., in retarding and finally suspending these works, followed by a parallel between his continual devising of plans for the education and elevation of his people and those by the late Prince Consort. In Henry VI.'s "Will" is a complete specification for his colleges, in which he has laid down his plans so clearly, that the lecturer was able to transfer them to paper and exhibit diagrams of the ground-plans to his audience as a basis for comparison with that of the actual buildings existing there. Henry, however, modified his plans considerably. He first founded a collegiate grammar-school at Eton and a small college at Cambridge, dedicated to St. Nicholas, that saint's day having been his birth-day. He soon enlarged his plans, increasing the number of his beneficiaries and connecting, by statutes copied from Wykeham's, Eton School with King's College at Cambridge.

The contemporary building accounts and documents, containing the King's projects and instructions, long mislaid, and believed to have been stolen, were by a fortunate accident discovered in a forgotten recess of the library at Eton, about two months since, and liberally submitted to the Professor's inspection. They contain abundant proofs of the personal interest which the King took in the details of the college buildings, and of the changes and improvements introduced by him as time went on. They show that the works at Eton were of two kinds, carried on simultaneously. First, the enlarging, refitting, and altering of buildings that already stood on the site purchased by the King, including the parish church, of which he obtained the advowson, and its conversion into a collegiate church. These buildings were made to serve for the purposes of the new College, which enabled the school to be brought into active existence from the beginning, without waiting for the erection of the magnificent architectural pile described in his Will and other documents, and which was commenced simultaneously with these temporary operations; but which, even if carried on in prosperous times, would necessarily have occupied many years in completion.

The permanent College was also begun; the first buildings commenced being the great chapel, which now exists, and the hall and kitchens. This

chapel was placed in the old parish church-yard, to the north of the old parish church, and was planned as the chancel of a large collegiate church, to be provided with a nave or body for the parishioners, as described in the King's Will, dated 1448. But, after the signature of this Will, the King enlarged and altered his plans. He sent persons to Sarum and Winton, and other parts, to measure the choirs and naves of churches there, and had improved designs made for the college buildings of Eton.

Among the documents lately discovered were two specifications relating to the chapel, one exactly corresponding to that of the Will, but in which every dimension is struck through with a pen, and an increased dimension written above it. The other specification describes the chapel or church, as it is called, in different phraseology from that of the Will, and more completely. The dimensions of the latter paper are greater than in the corrected document, and they correspond exactly with the chapel as it exists. Minute directions are given for the foundations of the chapel; the foundations for the enlarged dimensions are to be laid outside the walls then in progress, to be constructed with the greatest care, and with "mighty mortar."

The deposition of the King in 1461 put an abrupt stop to the buildings, which had languished during his increasing misfortunes. They were resumed, however, in 1475, but not under favourable conditions. The great chapel had evidently been completed in great haste, as was evidenced by the abrupt depression of the window-heads. The hall too shows similar evidences that its walls and windows were intended to have been carried to a much higher elevation, and that after a sudden interruption it had been hastily put into a condition to receive the roof, which is of very plain construction. The magnificent body of the collegiate church designed by the founder was never even commenced.

The arrangement of the college buildings differs entirely from that described in the Will of the founder in 1448. The Professor concluded from this, and from the mention of a plan or "Portratura" exhibited to the King in the following year "for the finishing of the buildings of the College," that he, when adopting an enlarged design for the chapel, had also determined upon another disposition of the other buildings.

The paper concluded with an examination of the present buildings, and a comparison of them with those mentioned in the will of Henry VI; together with a history of those which had been subsequently added.

Shortly after two o'clock a very large party assembled at the outer (west) gate of the Tower of London, where they were met by Mr. G. T. Clark, who led them through the postern of the Byward Tower to the quay, where he mounted a temporary platform, and gave a short introduction to the history of the Tower, and a general outline of its plan, before conducting them over the fortress.

Returning into the Outer Ward, the party then proceeded to examine St. Thomas's Tower, the ancient Traitor's Gate, and the other towers of the ward; then passing through the Bloody Tower into the inner ward, the Bell, Beauchamp, and other towers, and main features of the building, were inspected, Mr. Clark carefully pointing out the peculiar characteristics of each spot. Owing to the largeness of the party, and the narrowness of many of the passages traversed, a division was sometimes made, and the knowledge of some others of the company was turned to good account in explaining parts of the structure. The entire circuit of the

fortress was thus made, and the party having now been guided into St. John's Chapel in the White Tower, were glad to avail themselves of the excellent supply of seats which Lord de Ros and the other officials had most obligingly supplied for their convenience. Here Mr. Clark gave a full account of the history and architecture of the Tower.³

Mr. Clark began by remarking that the circumstances of our country had not been favourable to the production of military buildings of the first class, and our nobles had not been under conditions to justify the construction of great castle-palaces like those of France. Castles of which the quadrangular Norman keep is the type are confined, or very nearly so, to our own country and to Normandy. By the Normans, this class of fortress was introduced into England; and in their erection the Normans frequently availed themselves of the earthworks of strong places which already existed. The pre-eminence of the Tower of London, even in a purely military and architectural point of view, does not, however, depend alone upon its keep. It is, in its present state, a fine and very complete example of the concentric fortress, not indeed the execution of one period, but nevertheless presenting much harmony of design.

When, having crossed the Thames, the Conqueror marched in person to complete the investment of London, he found that ancient city resting upon the left bank of its river, protected on its landward side by a strong wall, with mural towers and an exterior ditch. It is related that before the Conqueror entered London, he directed a fortress to be built which should command the city. This, of course, was a temporary camp; and, while in that camp, he selected the present site of the Tower as that of his future citadel; displacing, for that purpose, a part of the Roman wall. The Tower is said to stand upon the site of the second Roman bulwark; but this is doubtful, though Roman remains have been found within the precinct.

Nearly in the centre, but now detached and alone, stands the Keep, the oldest and most stable part of the fortress. Around it is the Inner Ward, in plan generally four-sided. Encircling this is the Outer Ward, following the same general plan. And encircling all is the Ditch, which is divided from the river by a narrow strip of land. The ground covered by the Tower rises considerably from the river—a material advantage in repelling an attack from that side.

Cæsar's Tower (as it is called) rises 90 ft. from the floor to the crest of the present battlement; above which rise four turrets, three of which are square and one round. The walls are from 12 to 15 ft. thick, and the internal area is about 91 by 73 ft. The basement is crossed by a wall 10 ft. thick, which rises to the summit, and one of the two chambers so formed in each story, is again subdivided by another wall, so that every floor is divided into three chambers. On the fourth, or upper stage, is the "State floor," on which is the Council room together with the chapel of St. John—the chamber in which Mr. Clark was then discoursing. This, the earliest and simplest, as well as most complete Norman chapel in Britain, must have witnessed the devotions of the Conqueror and his immediate descendants. The church, which was afterwards built, was evidently intended rather for the garrison at large than for the sovereign. The upper gallery was no doubt used for the principal persons, while the household occupied the floor below. The walls were probably painted and hung

³ Printed at length in the volume "Old London," previously referred to.

with tapestry, and the eastern windows contained stained glass, placed there, with other ornaments, by Henry III. This chapel was dismantled in 1550; all crosses, images, and plate of gold being directed to be melted down.

The place and manner of the original entrance to the Keep are unknown. It was probably at the second stage, or first floor level, on the north side. There is no subterranean chamber in the Keep, or throughout the fortress. The arrangements of the interior are well designed to guard against a surprise, but must have been very inconvenient to those residing in it. The absence of ornament, and the general roughness of the work, lead to the conclusion that the Keep was built in haste.

The Inner Ward is inclosed within a curtain wall, having four sides, twelve mural towers, and a gatehouse. Its level is from 15 to 20 ft. above that of the Outer Ward. In the south-east quarter of this ward stood the palace, between the keep and the ward wall. The entry is through the gate-house in the south front, called the Bloody Tower. Portions of the curtain wall exist between some of the towers, which have been the chief prisons in the fortress. In the St. Martin Tower, the crown jewels are kept, and have been since about 1641.

The Outer Ward is a strip of from 20 ft. to 110 ft. in breadth, surrounding the Inner ward, and itself contained within the ditch, of which the wall forms the scarp. Its only regular towers were five on the south-front. Of these the principal is St. Thomas's Tower, better known as Traitor's Gate, and as the Water-gate of the Tower. The arch, 61 ft. in span, and 15½ ft. in rise, which crosses the basin within the outer wall, is a very remarkable piece of construction. On two of the floors in one of the turrets are doors facing openings in the Wakefield Tower, to which there were probably drawbridges. The Byward Tower, at the junction of the south and west ditches, is the great Gate-house of the Outer Ward.

The quay does not appear to have had any permanent parapet wall, being sufficiently commanded by the Outer Ward. It was probably the work of Henry III., by whom the ditch, the great defence of the Tower, was greatly increased in depth and breadth.

The building of the Tower was entrusted by the Conqueror to Gundulf, a monk of Bec, who, in 1077, was consecrated Bishop of Rochester. By him the Keep was doubtless completed, and much progress made with the walls of the enceinte, the palace buildings, and the Wakefield Tower. Works continued to be carried on at intervals; and, in the time of Stephen, the Tower was considered to be impregnable. Much was done to strengthen the Tower during the reign of Richard I. At the accession of Henry III., in 1216, the wall of the enceinte of the Inner Ward from Lanthorn Tower to Wakefield, Bell, and Devereux Towers, was in existence, together with the palace, the church of St. Peter, and other buildings within it. Probably the Inner Ward wall abutted direct upon the river shore. During the reign of Henry III. considerable additions were made to the fortress. The works are said to have been once interrupted by supernatural agency, on account of the displeasure with which they were regarded by the citizens. With the death of Henry, and the earlier years of his son, the history of the Tower, as a specimen of military architecture, may be said to decline, and its history as a state prison, if not to begin, to preponderate.

During the reign of Edward III., the Beauchamp, the Salt, and perhaps

the Bowyer, towers were built. In 1336 a survey of the Tower was made by the king's directions, and the repairs shown to be needed were done in the following year. In that reign it became the chief royal arsenal, and the mint, and record office were there. The strong monarchs employed the Tower as a prison, the weak ones as a fortress. It was the custom for the king to lodge a short time in the Tower previous to his coronation, and proceed thence in state to that ceremony.

By a survey taken in 1532, it appears that the Tower had been allowed to go greatly to decay, as a general repair was shown to be necessary. The buildings of the palace had probably fallen into decay in the reign of Elizabeth, by whom, or by James, the great hall was removed. In the 17th century many changes were made, and the White Tower was much altered by Sir C. Wren.

At the commencement of the present century, the Tower was a great jumble of ancient and later buildings, the towers and walls being almost completely incrueted by the small official dwellings by which the area was closely occupied. More recently, the general improvement in public taste has made its way into the Tower; Mr. Salvin has been appointed its architect, and Lord de Ros its lieutenant.

In the evening, a *Conversazione* by the Royal Institute of British Architects was given at the commodious and elegant rooms of the Institute in Conduit Street, to which all visitors at the Archæological Congress were specially invited, and enjoyed a most hospitable reception. On that occasion, many fine works of art were exhibited, and a special collection relating to the metropolis was most kindly formed by the Council. Among these were:—

Several volumes of prints, maps, and drawings, illustrating the topography of Old London, from the Library of the Corporation of the City of London; a large coloured drawing of the Palace at Whitehall, and other works by Inigo Jones; together with some modern buildings and designs, by Mr. W. Tite, M.P.

Fac-simile of part of the "retabulum," Westminster Abbey; and a series of fifteen drawings of portions of the interior of the Abbey, by Mr. G. G. Scott, R.A.

Photographs of various details, St. Paul's cathedral, by Mr. F. C. Penrose.

Drawings and photograph of the Temple Church, and drawings of the Middle Temple Hall, by Mr. J. P. St. Aubyn.

A collection of drawings, by Capon and others, of the palace at Westminster, and of views in London, by Mr. J. Dunn Gardiner.

Many drawings, designs, &c., by various Members, of buildings by them in London.

Saturday, July 21.

This was the day for the Excursion to Windsor and Eton.

By 11 A.M. the Members and visitors had assembled in large numbers on the Castle Hill, many of them having arrived by early trains.

The appointed rendezvous was King George IVth's Gate, immediately facing the Long Walk. The weather was most propitious, and the beauty of the scene was most charming. The spot was selected as specially suitable, on account of the modern entrance being nearly in the place of one of the great gateways of the Norman period, and as being

close to the exit of one of the postern passages which, by Her Majesty's gracious permission, and the kind and zealous attentions of the officers of the Board of Works, had been opened for the gratification of the visitors. Here Mr. Parker gave a short discourse, recapitulating the main points of his lecture of the previous day, and pointing out the principal features of the Castle, as apparent from the spot on which they then were. The entrance to the postern passage was among the fine shrubs immediately outside the wall, and on the top of the "slope" on that side. The descent had been made as convenient as possible, and very many ladies were among those who entered the quadrangle by that route. It seemed as though the extreme end of the passage had not been struck, but an opening had been made in the crown of the arch covering it. The passage was about 6 ft. high and 4 ft. wide, and was well and evenly cut through the solid chalk. At about the middle were the jambs for a door, with holes for the bar. At the further end—the original entrance to the postern—was another well-constructed arch of the Norman period. This is now under one of the servants' bedrooms. Scrawlings of names, "*graphiti*," in handwriting as late as the reign of Elizabeth, were seen on several parts of the walls. After examining the remains of the Norman gateway, the party crossed the quadrangle to the servants' hall, and thence by the stewards' room to the kitchen cloister. The north terrace was then reached, along which the party passed to the gate by the Wykeham Tower. These portions of the castle were of the time of Edward III. The next point of interest to the party was the Round Tower, where the remains of the ancient timber-work and fittings were seen, and the inner core of the old tower, round which the present structure was erected, was subjected to careful examination.

Owing to the largeness of the party a division of the number was at times found expedient, and Mr. G. T. Clark and Mr. Burt assisted in pointing out the chief features of the portions of the Castle under notice.

Descending the hill from the Round Tower the Chapel of St. George was reached, and here the Honorable and Very Reverend the Dean kindly received the party, conducting them through the Dean's cloister and study and the Wolsey Chapel (where are the beautiful Salviati mosaics in course of construction in this Memorial Chapel to the late lamented Prince Consort) into St. George's Chapel. In the Dean's library had been collected together many interesting drawings and engravings, together with the famous Red Book of the Garter, and some relics connected with the royal burials at Windsor. In the deanery too was shown the famous screen of the Knights of the Garter, upon which the arms of the knights are emblazoned. In the chapel Mr. Parker briefly referred to the leading points in its history, and pointed out its most interesting features.

Emerging by the west door of St. George's Chapel the canons' houses in the curious horse-shoe cloister were examined, and thence the visitors passed on and into the Clewer Tower. This is one of the finest portions of the work of Henry III. existing in the Castle. The lower storey, that used for the prison, is intact; and, as in the instance of the ancient postern, the most convenient facilities had been provided for the comfort and care of the visitors by the kind supervision of the clerk of the works.

Mr. Parker repeated the principal points in the history of the tower; and, in conclusion, expressed in most cordial terms his thanks for the valuable assistance and kind help which had been given to the objects of

the meeting by the Very Rev. the Dean, Mr. Woodward, her Majesty's librarian, and the officers under them.

Mr. Beresford Hope warmly seconded this expression of thanks, and trusted that the Dean and her Majesty's librarian would convey to her Majesty their sense of the kind attention which had been paid to the wishes of the officers of the Institute in the arrangements for the meeting. He then moved their adjournment to the Quadrangle of Eton College, where Professor Willis would meet them at four o'clock. It should be mentioned that the state apartments, library, and armoury were open to the visitors of the meeting during the whole day—a privilege which was warmly appreciated and well turned to account. Many of the more choice treasures of the library were most kindly displayed to view by Mr. Woodward, and the massive and more remarkable plate was also exhibited.

The Dean with most courteous hospitality entertained a large number of the party at lunch, and by special invitation numerous guests were most hospitably received by the Rev. the Provost of Eton, Dr. Goodford. Several of the masters and other officers of the college also welcomed visitors of the meeting to their tables.

Shortly after four o'clock the Rev. Professor Willis, attended by the Rev. the Provost and other distinguished members of the meeting, took post on the steps leading to the College Chapel. Shortly recapitulating the main points of his lecture in town on the previous day, and of the plans by which it was illustrated, he proposed to show the difference between the design given in Henry the Sixth's will and the actual execution of the work as shown by the present state of the buildings. The signs of interruption in the works and of abruptness in their completion were very evident in many places even to the unprofessional eye, especially in the heads of the windows of the chapel, and in the cloister arcade. A perambulation of the college buildings was then made, the party passing from the quadrangle into or through the schools, the hall, the cloisters, into the beautiful garden, and back again into the magnificent chapel. At many points the Professor directed the attention of the visitors to some special circumstances affecting the portion of the structure under notice. The ready and skilfully contrived access from the hall to the master's house was much remarked. On emerging again into the quadrangle a cordial vote of thanks to Professor Willis for the profound knowledge and skill which he had displayed in his treatment of this difficult subject was submitted to the meeting by Dr. Goodford, and carried with acclamation. With a very general expression of their great obligations to the Rev. the Provost, and the authorities generally at Windsor and Eton, the large concourse of visitors took their departure.

On Sunday, July 22nd, the Very Rev. the Dean of Westminster delivered a discourse at the afternoon service in Westminster Abbey upon archæology in its religious aspect, from the text, "See what manner of stones, and what buildings are here." (Mark xiii. 1.)⁴

Monday, July 23rd.

A meeting of the Historical Section was held in the Royal Institution, the Dean of Westminster in the chair.

⁴ Printed in the volume "Old London."

An essay by Mr. E. Foss on the "Legal History of Westminster Hall,"⁵ was first read.

Erected as an appendage to the Palace of Westminster by William Rufus, Westminster Hall has been used for royal ceremonies and festivities, and for the decision of disputes in the presence of the king himself and of the barons and prelates constituting the king's court. But the king's presence came to be a rarity, and was in time, as it is now, a fiction. A clause in Magna Charta remedied the inconvenience of the administration of justice being obliged to follow the court, and the "certain place" indicated for the holding of "common pleas" was Westminster Hall. In the reign of Edward I. the courts certainly met there, and the chancellor sat in a marble chair over against a marble table.

The Hall was also occasionally used as a high court of criminal justice for trials before peers, and of great delinquents impeached by the House of Commons; the last being that of Lord Melville in 1806.

There is evidence that, in the reign of Edward III., stalls for merchandise were allowed within the Hall, and that there were stables under it. After its restoration in the reign of Richard II., higher prices were charged for the accommodation thus afforded. These traders were not removed till the eighteenth century. Their business must have been a great interruption to the legal business of the Hall, although the courts were enclosed to a certain height. For the preparation of the coronation banquets the courts in the Hall were removed, and the shops and stalls boarded over.

Several inundations of the Thames are recorded as having flooded the Hall, giving occasion for the utterance of many legal witticisms; and the sittings of the courts were interrupted by the pestilences which occurred from time to time. But Westminster Hall is soon to be entirely dissociated from the law, and the worshippers will have to resort to another temple of justice.

Mr. CYRIL C. GRAHAM then gave an account of the proceedings of the Palestine Exploration Fund, founded on Captain Wilson's report of the expedition. A large number of photographs and detailed maps of portions of the Holy Land were exhibited, and Mr. Layard, M.P., Colonel Fraser, Mr. Beresford-Hope, Professor Porter, and others addressed the meeting upon the value of the explorations, and the need of continuing the work in hand.

Mr. BURTT then read a paper upon the contents of the Public Record Office.⁵

An archæological meeting in the metropolis would naturally look for an account of the national archives which were kept there. The main divisions of that collection were the "Legal," the "Historical," and the "Miscellaneous" records. The series of "Chancery" records began early in the reign of John, but the writer doubted whether earlier had not existed. Of course the Domesday Book is the great gem of the collection. Then came the great rolls of the Exchequer, called the Pipe rolls, and much was said of their importance and value. Possibly they too had existed from the time of the Conquest. The curious and remarkable boxes and other articles made in early times for the stowage and preservation of documents, and of which some still exist in the department of the Treasury

⁵ Printed at length in the volume "Old London."

of the Exchequer, were mentioned in some detail. The collection of national muniments continued to increase, increasing vastly in bulk as they diminished in interest, during the eight centuries which have passed since the Domesday Book was compiled. Many very special documents in the collection were remarked upon. These special documents came into the collection in the ordinary course of its formation. Some details illustrating the action of the Courts of "Star Chamber," "Requests," and "Wards and Liveries," and the importance of their records were given. The greatest modern addition to the contents of the Office was that of the "State Paper" collection, of which excellent calendars were in course of publication. The building had lately been much added to and improved, and now comprised about eighty rooms, chiefly cubes of seventeen feet.

At about 2 o'clock a large party of visitors, under the guidance of the Rev. E. Hill, assembled at Lambeth Palace. Here they were received by the Rev. W. Stubbs on behalf of His Grace the Archbishop of Canterbury. After examining the Chapel, the Lollard's Tower, and the other chief architectural features of the Palace, Mr. G. Scharf discoursed upon the more remarkable paintings. A portrait of Archbishop Warren was specially referred to as having been very lately retrieved from a condition of extreme neglect. Thence the party proceeded to the Temple. In the church Mr. Parker gave a short discourse, pointing out the chief architectural beauties of the structure, and the judicious works that had been executed outside the walls. The difference of level caused by the accumulated soil was distinctly marked. In the Hall of the Inner Temple, Mr. W. Bernhard Smith called attention to the fine specimens of armour that were exhibited. From the Temple the progress was continued to the fine church of St. Mary Overy, Southwark, where Mr. Freeman discoursed upon its remarkable construction and great beauty, speaking in strong and well merited terms of indignation of the destruction of the nave in 1831, and the erection of the present structure in its stead. The church of St. Giles, Cripplegate, was the termination of the day's perambulation. The rector, the Rev. P. Gilbert, most courteously had every arrangement made for the convenience of the visitors, and showed them the many fine monuments, specimens of the parish records, &c. Mr. Parker referred to the chief points in the architecture of the church, and drew attention to the fine specimens of the Roman wall of the City, which formed the southern boundary of the churchyard. In several places the wall seemed to be in the soundest possible condition.

Tuesday, July 24th.

A meeting of the Section of Primæval Antiquities was held in the theatre of the Geological Museum, at 10 A.M., Sir JOHN LUBBOCK, Bart., in the chair.

Mr. E. DEUTSCH read a paper "On Semitic Palæography and Epigraphy," in which he described the progress of those sciences and discussed the state of our knowledge of them.

This was followed by an essay "On the Flint-flakes found in Devon and Cornwall," by Mr. N. WHITLEY, in which the author combated the usually-received opinion of such flakes being the results of human manufacture, and contended that they were of natural origin. The Chairman was unconvinced by the essayist. Mr. John Evans also objected to the conclusions arrived at by Mr. Whitley; and followed up his remarks by exhibiting

a considerable number of fine examples of flint implements found in the drift at various places, pointing out in a very conclusive chain of reasoning that their shape was the result of human agency. The rounding of the ends of the larger instruments seemed as if they were intended for drilling. Mr. Mackie thought the pointed or pear-shaped form of instrument was probably a weapon used as a pole-axe in the slaughter of large animals.

A meeting of the Section of Antiquities was also held in the Royal Institution, where the Rev. H. Joyce reported at considerable length the results of the operations that had now been carried on for some time in excavating the Roman city of Silchester in Hampshire. These operations were made by the directions, and at the expense, of His Grace the Duke of Wellington. A large collection of beautifully executed and coloured drawings of the principal buildings that had been met with in the course of the excavations, and of some of the rarer and more remarkable objects found, was also exhibited by the lecturer.

At noon a special train on the South Western railway conveyed a large number of visitors to Hampton Court. The great feature in the excursion to this well-known and beautiful palace, was to hear Mr. Scharf's discourse upon the pictures, of which many of the usually-received accounts require correction.

In the Great Hall, hung about with the fine tapestry designed by Bernard van Orley, Mr. SCHARF began his remarks upon the royal collection of pictures, and the changes they had undergone as to location.⁶ Recapitulating some of the heads of his previous lecture, Mr. Scharf addressed himself chiefly to the misnomers which had grown up, and to the individual histories of many of the paintings now in the Palace. Some of the adventures which these had undergone were very remarkable. Nos. 281 and 282 of the catalogue were the juvenile portraits of two Austrian princesses, daughters of the Archduke Charles, whereas they were called those of the princesses Mary and Elizabeth. The series of portraits known as Charles II.'s Beauties was formed by the Duchess of York, and was kept at Windsor and known up to a late period as the "Windsor Beauties." After a review of the characteristics of many of the more important paintings, Mr. Scharf expatiated on the importance of the details of dress and other accessories often represented.

The visitors, on returning from Hampton Court, made a digression for the purpose of inspecting the palace and beautiful grounds of the Bishop of London at Fulham. They were most courteously received by the Bishop and Mrs. Tait, and conducted over the courts, and through the more important apartments of the palace. But little of the original episcopal residence now remains; the library, however, has traces of its 13th century construction, and some of the offices have escaped the many changes and alterations which the palace generally has undergone. An episcopal residence is said to have been built here in the 7th century. The great attractions of the place at the present time are the handsome grounds, the famous hickory and "Judas" trees, among the fine collection of noble trees planted by Bishop Compton, and which then contained many specimens quite new to this country. On the land sides, these grounds are encompassed by a moat or dyke, which may be of Danish construction. The fine series of portraits of the various eminent bishops

⁶ Printed at length in the volume "Old London."

who had occupied the see, were especially remarked upon, and many interesting details furnished by his lordship. With many acknowledgments of the kind courtesy and hospitality of the bishop, the last excursion of the present meeting was brought to a close.

Wednesday, July 25.

The Annual Meeting of Members was held in the Council Chamber, Guildhall, at 10 A.M. The MARQUIS CAMDEN in the chair.

The proceedings commenced by reading the Annual Report, which congratulated the Institute on completing its majority in so healthy a state, the Committee pointing with satisfaction to the formation of a Section of Primæval Antiquities as an evidence of the enlarged field of enquiry to which the Members had devoted their attention.

The past twelve months have been productive of many interesting discoveries, especially at Caerleon and Silchester. At Salisbury an excellent museum had been formed; and at Exeter a building for a similar purpose was in course of construction. The Committee congratulated the Members on the recognition of the claims of British Antiquities by the authorities of the Museum, and the appointment of their accomplished friend, Mr. Franks, as the first Keeper of that Section; also, upon the vote of the House of Commons for the repair of the Chapter House, Westminster; and concluded with an expression of deep regret at the threatened destruction of the establishment at Monte Cassino by the Italian Government.

The Report having been unanimously adopted, that of the Auditors, comprising the balance-sheet for the past year, was also read, and approved.

Announcement was then made of the proposed changes in the Central Committee; when the following names were selected to go out in the customary rotation:—The Lord Talbot de Malahide, Vice-President; the Hon. Robert Curzon; Professor T. L. Donaldson; the Rev. Gregory Rhodes; Geo. Scharf, Esq.; J. Yates, Esq.; and A. J. Beresford-Hope, Esq.

The following gentlemen were recommended to supply the vacancies:—A. J. Beresford-Hope, Esq., as Vice-President; W. D. Jeremy, Esq.; the Earl of Dunraven; Lieut.-Col. A. H. Lane-Fox; J. G. Nichols, Esq.; Sir E. Lechmere, Bart., M.P.; and G. T. Clark, Esq.

As Auditors:—J. Stephens, Esq.; and W. W. King, Esq.

On the motion of Mr. Laing, these arrangements were carried unanimously.

Communications were then made respecting the next place of meeting, and invitations from Hereford and Hull were read. After some discussion, Mr. Beresford-Hope moved that Kingston-upon-Hull be the next place of meeting. This was seconded by Mr. Parker, and carried; it being announced that his Grace the Archbishop of York would be the President of the Meeting; Mr. Freeman remarking that there were two fine Cathedrals yet to visit,—Hereford and Exeter, and both had neighbourhoods rich in archæological objects.

A paper was read "On the Seals of Mediæval London," by G. W. DE GRAY BIRCH. About 200 casts of seals (made by Mr. Ready) from originals in the Public Record Office, Duchy of Lancaster, British Museum, and the archives of the Cathedrals of St. Paul and Canterbury, were exhibited.

The writer gave a general introduction to the use of seals from the earliest times, with examples of their art, and modes of affixing or impressing them: that known as "*en placard*" being the most ancient, prevailing to the 11th century. Many references were given to the most curious or remarkable examples of seals and sealing—especially to those of St. Paul's, London, and Westminster.

The meeting of Members having terminated, a general concluding meeting was then held, when the following votes of thanks were passed most cordially:—

Moved by Mr. A. J. Beresford-Hope, seconded by the Rev. E. Hill,—

To the Mayor and Corporation of the City of London, for the use of the Guildhall, the Council-chamber, and other facilities for the meeting, and for the convenient arrangements made for holding it.

By Sir John P. Boileau, seconded by the Rev. C. W. Bingham,—

To the Contributors of papers and addresses to the meeting; to which was appended a recommendation that a sub-committee be formed for the publication of the principal memoirs.

By Mr. J. H. Parker, seconded by Mr. Burt,—

To the Bishop of London, the Dean of Westminster, the President and Council of the Royal Institute of Architects; the Dean of Windsor, and the Provost of Eton, for the great kindness and hospitality with which the Institute had been welcomed.

This vote was warmly responded to by the Dean of Westminster.

By the Rev. R. P. Coates, seconded by Mr. Laing,—

To the Constable of the Tower of London and Lord de Ros, the Commissioners of Her Majesty's Woods, and Works, the Dean of Windsor, the Provost of Eton, the Incumbents of Waltham and other churches, and the proprietors of other places visited, for the facilities and attention shown to the Institute when inspecting the places under their direction.

By the Rev. J. Allen, seconded by Mr. Nightingale,—

To the Marquis Camden, for his great courtesy, kindness, and attention during the meeting.

The noble Marquis returned thanks for the warmth with which this acknowledgment had been conveyed. He expressed the satisfaction which, in common with so many of his friends, he had experienced from the proceedings of the meeting. The assembly then dispersed.

In the afternoon a considerable party visited the Christy collection of antiquities at 103, Victoria Street, Westminster, to which Mr. A. W. Franks had issued invitations, with the kind permission of the Trustees of the British Museum. This fine collection—especially rich in the memorials of the pre-historic period collected over a very wide area, and in the curious appliances and productions of savage life—had only been lately arranged by Mr. Franks, who most hospitably received the visitors on the occasion.

The Central Committee have great pleasure in acknowledging the following donations in aid of the London Meeting, and of the general purposes of the Institute:—The Marquis Camden, 5*l.*; Sir John P. Boileau, Bart., 5*l.*; Felix Slade, Esq., 10*l.*; C. T. Greaves, Esq., 5*l.* 5*s.*; Mrs. Kerr, 5*l.* 5*s.*; Dr. Guest, 5*l.* 5*s.*; O. Morgan, Esq., M.P., 5*l.*; J. Henderson, Esq., 5*l.*; A. W. Franks, Esq., 5*l.*; A. J. B. Beresford-Hope, Esq., M.P., 5*l.*; H. Vaughan, Esq., 5*l.*; A. Way, Esq., 3*l.*; Mrs. A. Way, 2*l.*; E. Smirke, Esq., 2*l.* 2*s.*; Professor Westmacott, 1*l.* 1*s.*; Dr. Kershaw, 10*s.* 6*d.*



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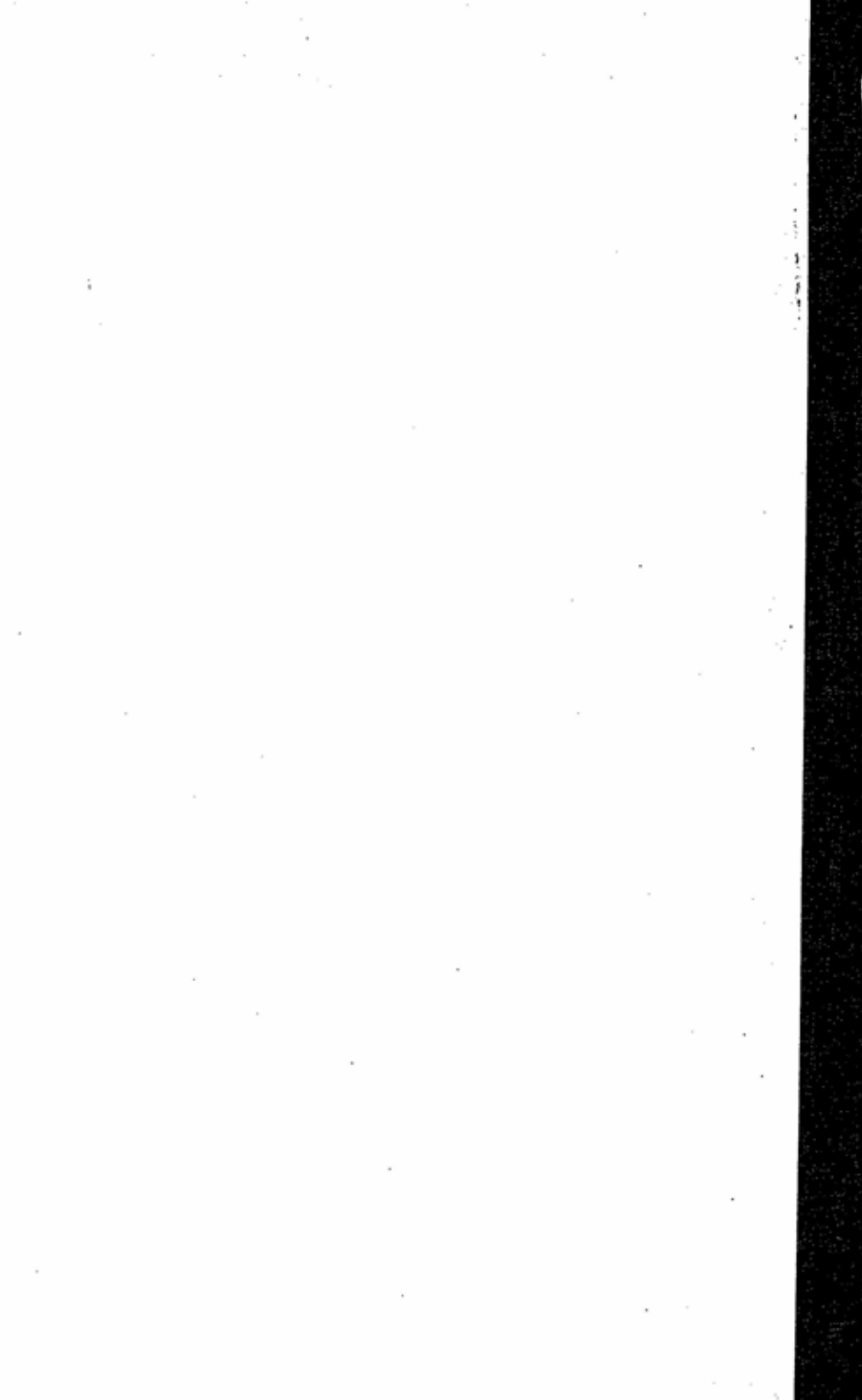
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