

REPORT AND COMMUNICATIONS.

REPORT

PRESENTED TO THE

Cambridge Antiquarian Society,

AT ITS THIRTY-EIGHTH ANNUAL GENERAL MEETING,

MAY 27, 1878,

WITH AN ABSTRACT OF THE PROCEEDINGS OF THE SOCIETY

1877—1878.

ALSO

Communications

MADE TO THE SOCIETY.

No. XX.

BEING No. 2 OF THE FOURTH VOLUME.

CAMBRIDGE :

PRINTED FOR THE CAMBRIDGE ANTIQUARIAN SOCIETY.

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GEORGE BELL AND SONS, LONDON.

1878.

Price Three Shillings.

CAMBRIDGE ANTIQUARIAN SOCIETY.
COUNCIL.

May 27, 1878.

President.

CHARLES CARDALE BABINGTON, Esq., M.A., F.R.S., St John's College, *Professor of Botany.*

Treasurer.

WILLIAM MILNER FAWCETT, Esq., M.A., Jesus College.

Secretary.

Rev. SAMUEL SAVAGE LEWIS, M.A., Corpus Christi College.

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Rev. HENRY RICHARDS LUARD, D.D., Trinity College, *University Registrar.*

Rev. JOHN EYTON BICKERSTETH MAYOR, M.A., St John's College, *Professor of Latin.*

Rev. WALTER WILLIAM SKEAT, M.A., Christ's College, *Bosworth Professor of Anglo-Saxon.*

Rev. THOMAS BROCKLEBANK, M.A., King's College.

FREDERICK CHARLES WACE, Esq., M.A., St John's College.

PUBLICATIONS
OF THE
CAMBRIDGE ANTIQUARIAN SOCIETY.

REPORTS.

Reports I—X (1841—1850). Ten numbers. 1841—1850. 8vo.

PUBLICATIONS. QUARTO SERIES.

- I. A Catalogue of the original library of St Catharine's Hall, 1475. Ed. by Professor CORRIE, B.D. 1840. 1s. 6d.
- II. *Abbreviata Cronica, 1377—1469.* Ed. by J. J. SMITH, M.A. 1840. *With a facsimile.* 2s. 6d.
- III. An account of the Consecration of Abp. Parker. Ed. by J. GOODWIN, B.D. 1841. *With a facsimile.* 3s. 6d.

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1877—1878.



Cambridge :

PRINTED BY C. J. CLAY, M.A. AT THE UNIVERSITY PRESS.

DEIGHTON, BELL & CO.; MACMILLAN & CO.

G. BELL AND SONS, YORK STREET, COVENT GARDEN, LONDON.

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REPORT

PRESENTED TO THE CAMBRIDGE ANTIQUARIAN SOCIETY
AT ITS THIRTY-EIGHTH ANNUAL GENERAL MEETING,
MAY 27, 1878.

DURING the past year sixteen names have been added to our roll, which now contains eighty members.

The Museum and Library have been enriched by several presents, as mentioned in detail below.

The Society has had to deplore the loss of two distinguished and zealous Members, Mr J. H. LAW, M.A., and the Rev. G. WILLIAMS, B.D., both of King's College. Mr Law had shown his interest in this Society by frequent attendance at our Meetings since his election in 1872. Mr Williams' connexion with the Society was of twenty-eight years' duration, and from 1857 until he left Cambridge for the parish of Ringwood in 1868 he was an active Member of our Council. Two valuable papers bearing upon the history of his College have been printed in the first volume of our Communications, the former on William Millington, the first Provost (read May 3, 1858), the latter containing Manumissions of Serfs, extracted from the records of King's College (read February 21, 1859). To the Cambridge Architectural Society (now incorporated with our own) he was also a frequent contributor; for the Roxburghe Club he edited "The Itineraries of W. Wey to Jerusalem in 1458" (4to. 1858); and the Correspondence of Bishop Bekyn-ton (2 vols. 8vo. 1872), for the Master of the Rolls' series.

But he will be more especially remembered for his great work on *Jerusalem, The Holy City* (2 vols. 8vo. London, 2nd edition, 1849), and for the enthusiastic perseverance with which he promoted the movement for the union of the Anglican with the Eastern Church.

Mr SANDARS' *List of Books printed on Vellum*, and Mr HAILSTONE'S *Supplement to his History of Bottisham*, are just ready for issue; Mr CLARK'S edition of *Josselin's Historiola Collegii Corporis Christi* is far advanced towards publication; Mr SEARLE'S *List of Pamphlets concerning the University of Cambridge* is in the press.

A memorial has been drawn up by the Council and sent to the University Commissioners, urging them to make provision for the proper storing and exhibition of the various collections of this Society.

SUMMARY OF ACCOUNTS FOR YEAR ENDING MAY 27, 1878.

RECEIPTS.		EXPENDITURE.	
£	s. d.	£	s. d.
Arrears before 1877	17 17 0	University Press	52 16 6
Subscriptions 1877	11 11 0	Autotype Company	10 19 3
" 1878	28 7 0	Stearn (Photographer)	5 14 0
Life Members	21 0 0	Postage and Expenses	0 5 6
Sale of Publications, Macmillan & Co.	8 10 3	Balance in Treasurer's hands, May, 1878	165 11 3
Balance in Treasurer's hands May, 1877	148 1 3		
	<u>£235 6 6</u>		<u>£235 6 6</u>

Examined and found correct,

CHARLES C. BABINGTON, }
 FREDERICK CHARLES WACE, } *Auditors.*

May 27, 1878.

CAMBRIDGE ANTIQUARIAN SOCIETY.
COUNCIL.

May 27, 1878.

President.

CHARLES CARDALE BABINGTON, Esq., M.A., F.R.S., St John's College, *Professor of Botany.*

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Rev. THOMAS BROCKLEBANK, M.A., King's College.

FREDERICK CHARLES WACE, Esq., M.A., St John's College.

LIST OF PRESENTS

DURING THE YEAR ENDING

MAY 27, 1878.

ANTIQUITIES.

From Mr S. G. Perceval :

A black Romano-British vase ($6\frac{1}{2}$ in. high by 1 ft. 10 in. in circumference), found by coprolite diggers on Coldham Common, near Cambridge, about 1860.

From Mr A. J. Jukes-Browne :

Nine small flint implements (described and figured in Communications, Vol. IV. No. VIII.), found at Helwan, near Cairo.

BOOKS.

From the Society of Antiquaries of London :

Proceedings of the Society. 2nd Series, Vol. VII. Nos. 2 and 3. 8vo. London, 1877.

From the Sussex Archæological Society :

Sussex Archæological Collections. Vols. XXI.—XXVII. and General Index to Vols. I.—XXV. 8vo. Lewes, 1869—77.

From the Associated Architectural Societies of Lincoln, York, &c. :

Reports and Papers for 1876. 8vo. Lincoln (1877).

From the Historic Society of Lancashire and Cheshire :

Transactions of the Society. Vol. XXIX. 8vo. Liverpool, 1877.

From the Powys-Land Club :

Montgomeryshire Collections. Vol. x. Part 2, and Vol. xi. Part 1. 8vo. London, 1877—78.

From the Royal Historical and Archæological Association of Ireland :

Journal of the Society. 4th Series, Vol. iv. Nos. 30, 31, 32. 8vo. Dublin, 1877—78.

From the Académie Impériale des Sciences, St Pétersbourg :

Rapport sur l'Activité de la Commission Archéologique en 1872, 1873, 1874. 4to. St Petersburg, 1875—77.

From the Smithsonian Institution :

Annual Report of the Board of Regents for 1876. 8vo. Washington, 1877.

From G. Buckler, Esq. :

Colchester Castle a Roman Building. Sections I and II, 8vo. Colchester, 1876, 1877.

AN ABSTRACT OF THE PROCEEDINGS
AT THE MEETINGS OF THE SOCIETY

DURING THE YEAR ENDING

MAY 27, 1878.

Nov. 12, 1877. Professor C. C. Babington, President, in the chair.

The following new Members were elected :

George Mackenzie Bacon, Esq., M.A., Trinity College.

Rev. William Fiddian Moulton, M.A.

A Paper by Mr Jukes-Browne, F.G.S., was read, in which he gave a detailed account of Flint Implements found at Helwan near Cairo. (See Communications, Vol. IV., No. VIII.)

Professor Hughes exhibited an antique intaglio sard in a silver setting of the same date, engraved with the figure of a laureated athlete seated on a raised platform, and holding a palm-branch in his extended left hand—the work probably of some Gallic or British artist in the third century A.D. It is the property of Capt. Mesham of Pontryffydd, and was found by his keeper in the earth thrown out by a rabbit, in a British camp at Penygaer, on a kind of promontory running out between the Vale of Clwyd and the tributary stream called the Chwiler in Flintshire.

The Rev. Canon Scarth exhibited four antique gems, on which Mr Lewis read the following remarks :

“Of the intagli now exhibited, two, viz. the red jasper mounted in a gold ring and the unset red jasper, were found in 1874—the other two, unset carnelians, about ten years earlier; all four are the fruit of excavations at Charterhouse, on the southern slope of Mendip (near the Roman road from Uphill on the Severn to Sarum and Southampton), where lead-mining and -smelting have been lately revived on the spot where Romans had worked for a considerable period.

Two pigs of lead—one weighing 2 cwt., the other 1 cwt. 1 qr. 3 lbs.—both bearing the words IMP-VESPASIAN-AVG, enable us to fix the period of activity to between the years 70 and 80 A.D.

No. I.



No. I. is a red jasper bearing a helmeted female head, representing *Minerva* or the goddess *Roma*: the Corinthian vizored helmet is thrown

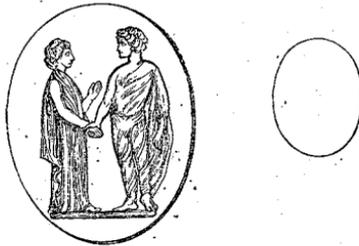
back so as to leave the face bare; the pose is identical with that of Pallas on the silver coins of Lysimachus and of Roma on the bronze coinage of Nero and Domitian: the serpent which often ornaments her shield is here seen rising from the aegis on her chest.

No. II.



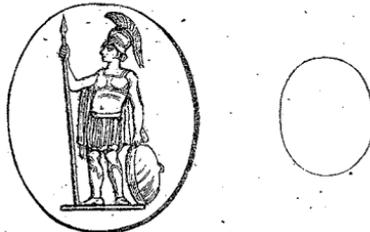
No. II. is an unset red jasper engraved with a figure of *Eros* leaning forward as he endeavours to land a fish so heavy that his rod bends almost to breaking with the weight. One of the most graceful representations of the restless Son of Aphrodite: the work may well be of the Augustan age.

No. III.



Nos. III. and IV. are unset red carnelians, the former bearing what is probably the betrothal of a youth and maid, who stand upright and join

No. IV.



hands; the latter a *Mars* wearing an Athenian helmet and in full armour, with his right hand upraised and grasping a lance, and his left touching the top of his round shield which rests on the ground."

Mr Lewis exhibited and commented on a silver five-franc piece (probably designed and struck by Wurden, a Belgian artist).



Obv. (legend)

MACMAHON I SEPTENNAT

Head of Marshal Macmahon (Duke of Magenta) to left: beneath, in small characters, NAPOLEON F;

Rev.

REPUBLIQUE FRANÇAISE.

Imperially crowned shield quarterly; in first and fourth azure the imperial eagle; in second and third France modern (three fleur de lys): on an escutcheon of pretence gules a cap of Liberty: above, the crown, surmounted by a cardinal's hat and celestial rays issuing from the name LOYOLA.

Behind the shield in saltire a sword in bend, hilt downwards, cannon-sponge in bend sinister, croziers, and two banners bearing the words LOURDES and SALETTE respectively. Beneath, two SACRÉ COEUR medals suspended by a ribbon. 1874.

In base dexter a star: in base sinister Gallic cock crowing: ESSAI.

On the edge, DIEU PUNIT LA FRANCE.

Two bronze coins—a sou and a two-sous piece—designed in satire on the Prisoner of Sedan, and issued in the winter of 1870—71, were also exhibited by way of illustration from the same cabinet.

Mr Naylor gave an account of very interesting frescoes, which have been recently discovered during the restoration of Chesterton Church in this county.

Mr Spencer G. Perceval, M.A. (Trinity Hall), presented a black Romano-British vase (6½ inches high by 1 ft. 10 inches in circumference), which had been found by coprolite-diggers on Coldham Common about 1860.

Nov. 26, 1877. Professor C. C. Babington, President, in the chair.

The following new Members were elected:

Rev. James Beck, M.A., Corpus Christi College.

Edward Hailstone, Esq. (Anglesey Abbey).

John Drummond Robertson, Esq., Trinity College.
William Henry St John Hope, Esq., Peterhouse.

Professor Hughes made the following communications :

I. Not long ago I received a letter through our Secretary, asking whether certain stone weapons were still to be seen in the Woodwardian Museum, as they were recorded in Dr Woodward's catalogues, and enquiries had been made to him about them.

I thought it would interest the Society to have the specimens laid before them with the notes upon them made by Dr Woodward, which indicate Maryland, Virginia, Barbados, Canton, and other distant localities of discovery. The collection was placed with the belemnites, but Dr Woodward clearly distinguished the two groups. There are no palæolithic forms; but the two-arrow heads (Nos. 13 and 14) from Ireland are interesting, as so many similar forms have recently been procured from Lough Neagh, and elsewhere in that country.

II. On the *Lleithvaen*.

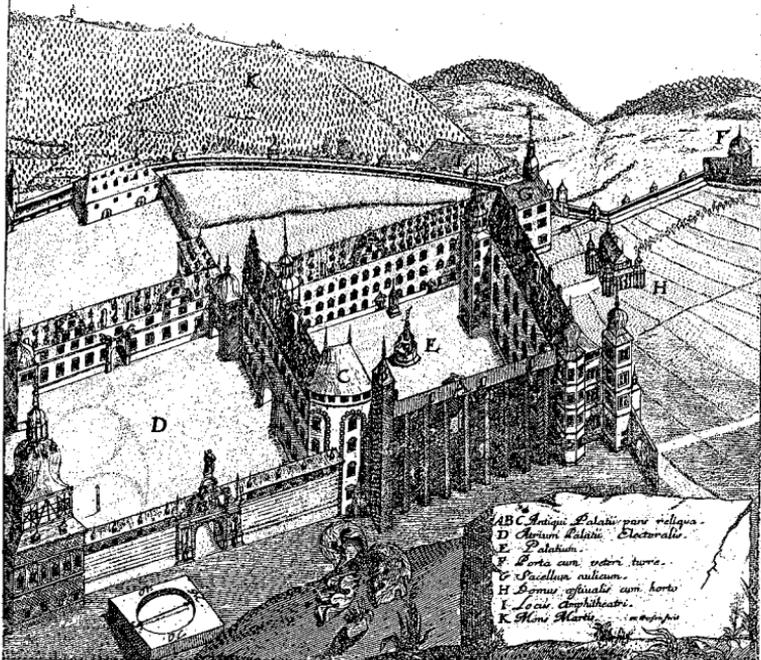
In these days when almost every paper contains some allusion to Hydrophobia, it may be of interest to bring before the Society an ancient piece of stone, which is said to be a certain cure for that dreaded disease, and which has been in use in Wales for centuries. One of the fragments belonged to my grandfather, who used it for the bite of a mad cat; through an uncle it has recently come into my possession. The original is supposed to have fallen from the sky, or moon, as it used to be said. A fragment was brought from Rome by a member of the family of Trawscoed or Mabws, where it got to Troedyraur, and a fragment came eventually into possession of my grandfather. A small quantity scraped off with a knife is taken in milk, the dose being about as much as could be put on a thumb nail, or small coin the size of a sixpence. The other specimen was given to my father by an old woman, who had treasured it up for a long time; I have myself taken some of it, when bitten many years ago by a mad dog, and I have once given a dose to a man who had been bitten.

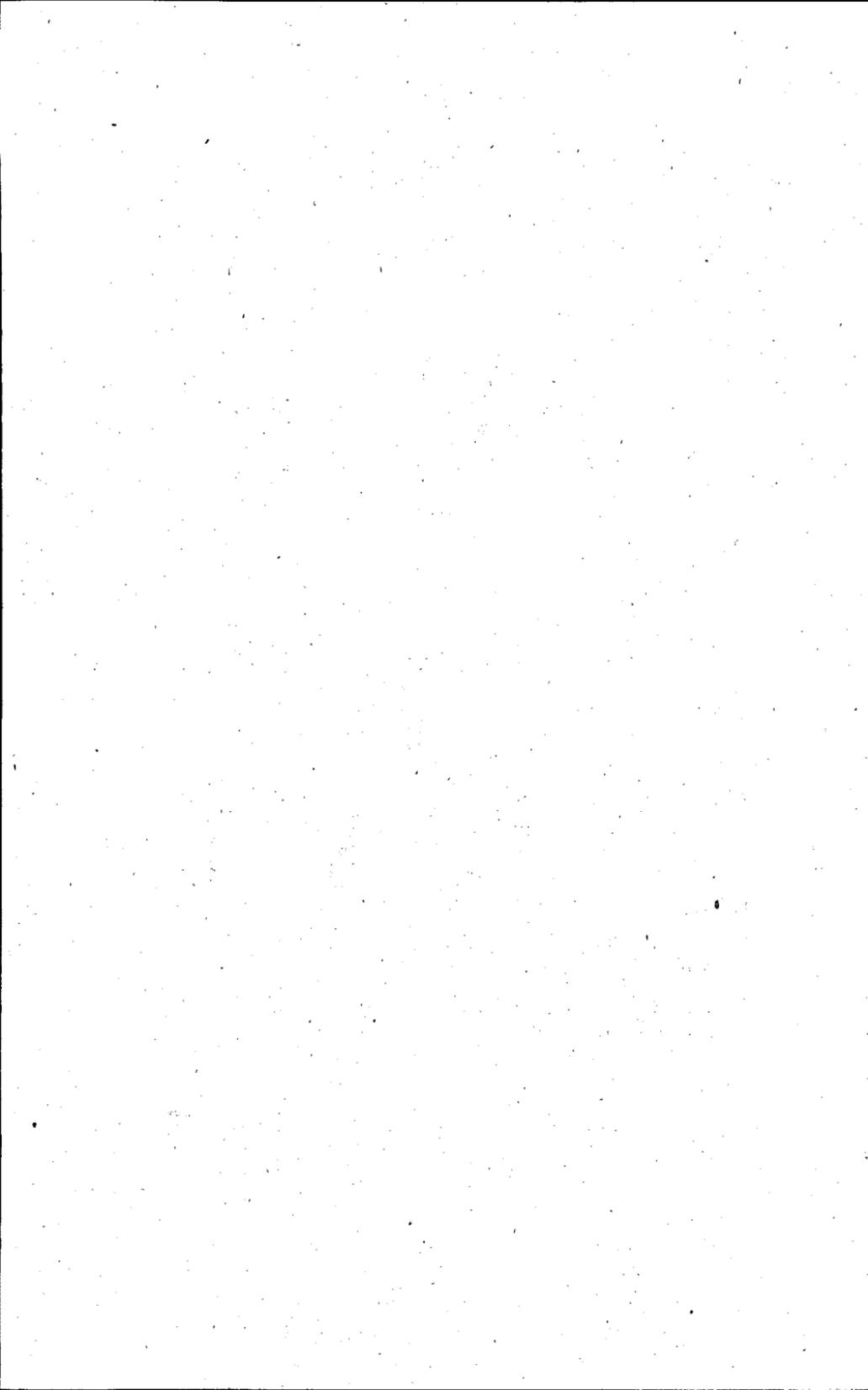
The grass that grows in the churchyard of Llanedren, a very out-of-the-way place in Pembrokeshire, is said also to be a cure for hydrophobia.

III. On a *Carreg-lab*.

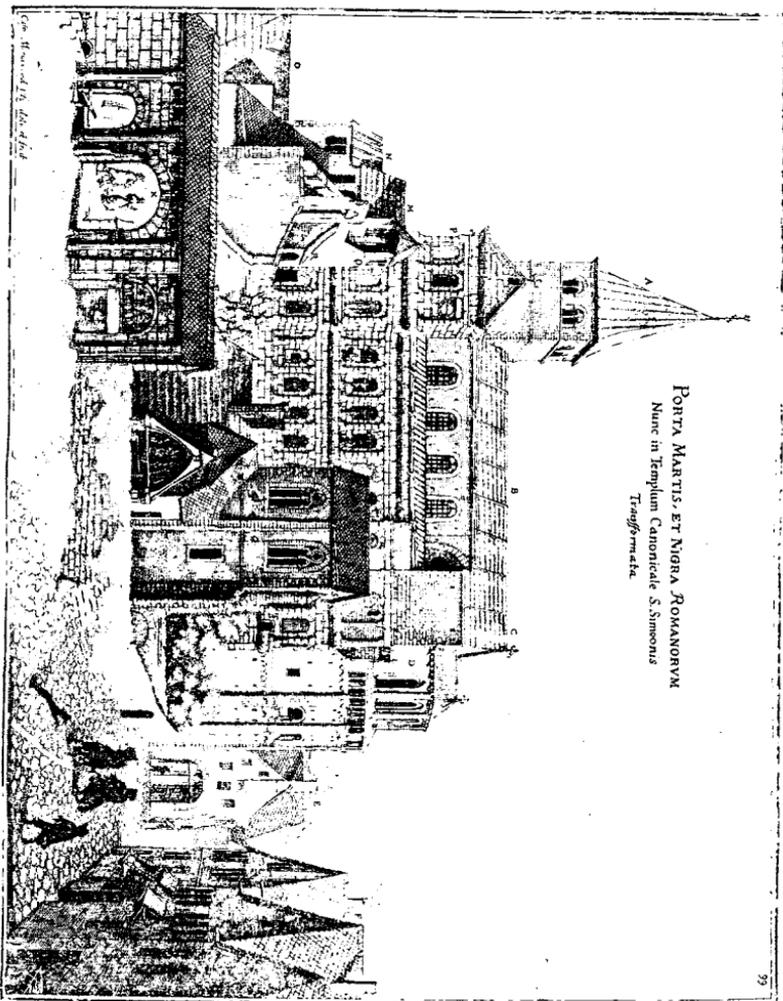
Although the specimen itself has an interest from its antiquity, as I traced it far back into the last century through the tradition of two generations, it is as an example of the use of stone at the present day for what may almost be called domestic purposes, and for the resulting form which it would be difficult to explain were it to go out of use for a generation, that I think it worth while to call the attention of antiquaries to it.

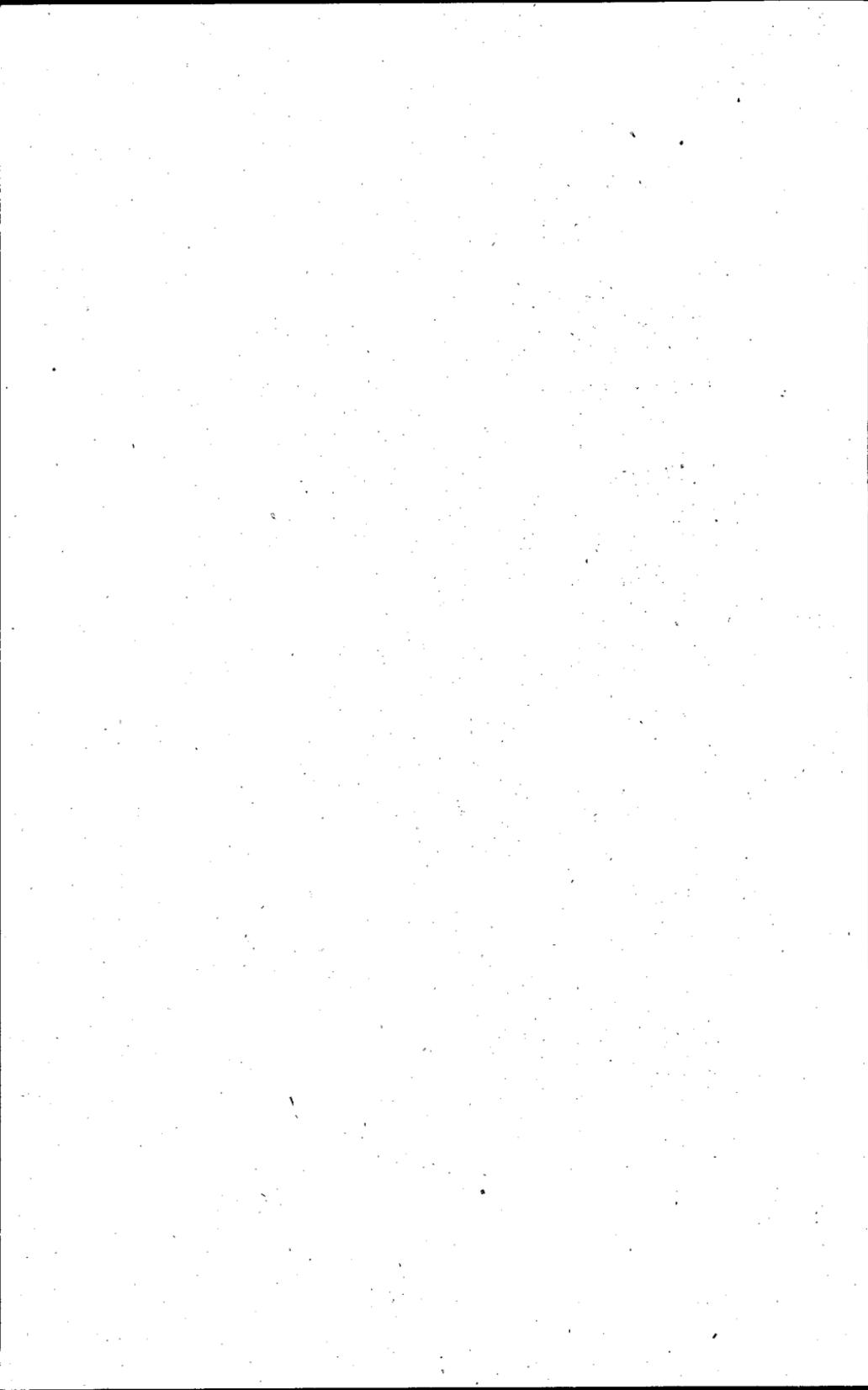
*PALATIUM ELECTORALE
 ARCHIEPISCOPORVM TREVIR.
 Antiquum Nouum*

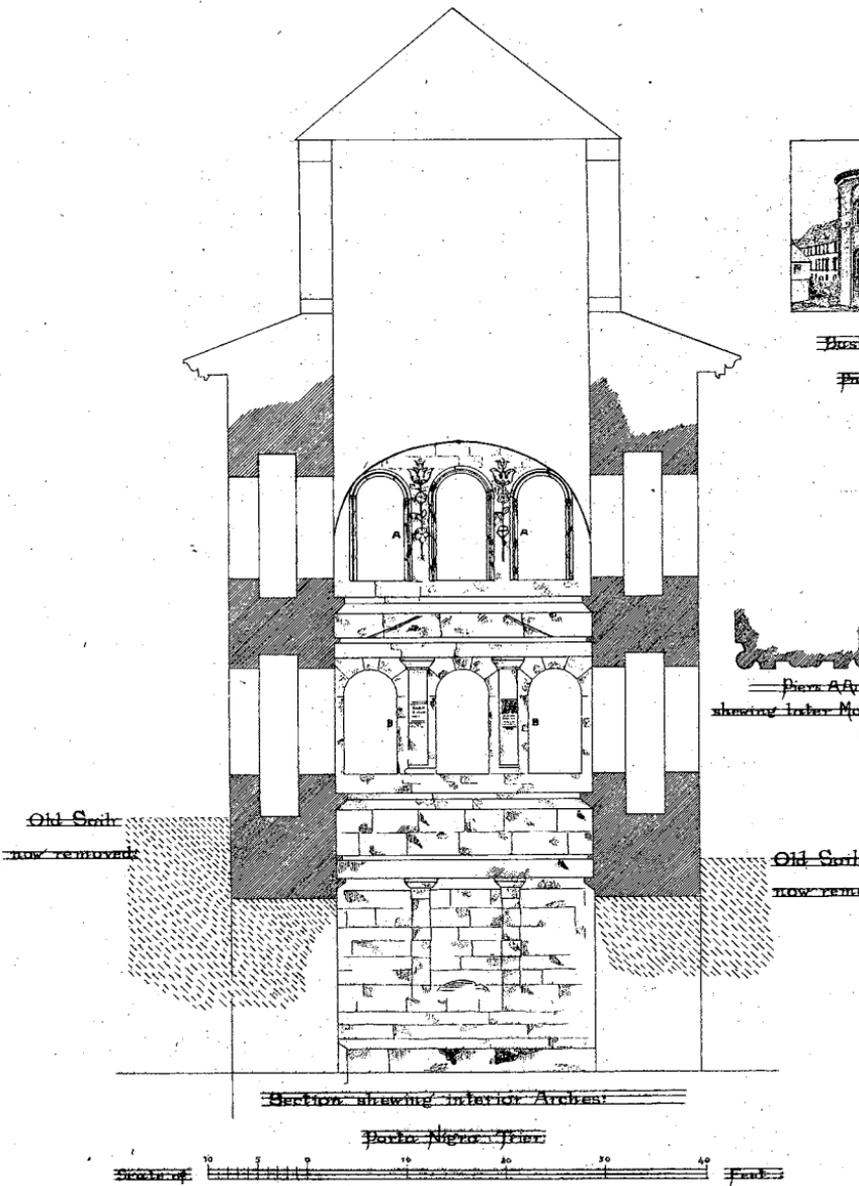




PORTA MARTIS, ET NIGRA ROMANORVM
Mure in Templum Canoniale S. Simeonis
Transformata





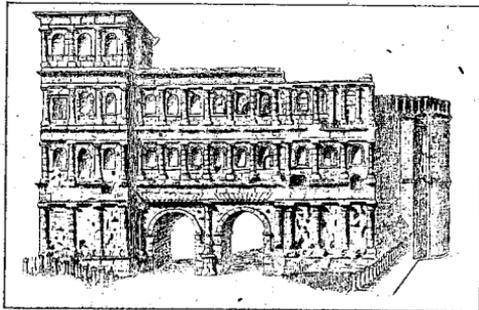


Bus
B...

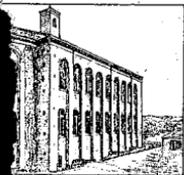


Piers A & B
showing interior M...

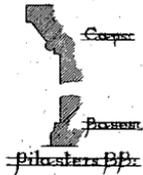




Porta Nigra, Trier.
Present Condition.



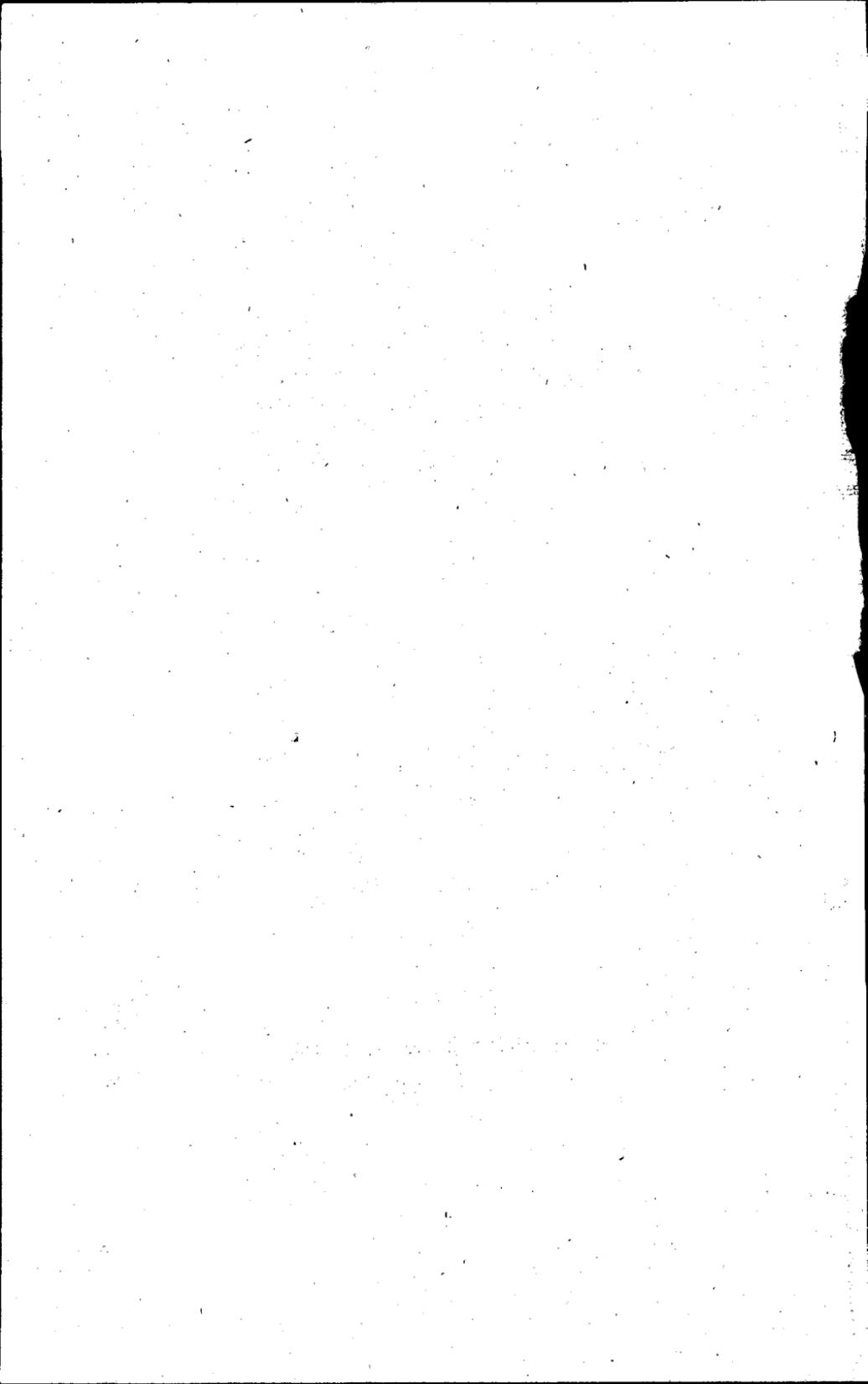
of Trier
Condition



Positive, Original Work ————
Do Modern Work - - - - -
Positive, Portion now
existing ————
Do Portion now
destroyed - - - - -

Length 220 ft.
Width 88 ft.
Height 100 ft.

Diagram showing Alterations
to Positive Trier



The stone is a shore-rolled fragment of one of the greenstone dykes, which traverse the eastern part of Anglesea. Its hardness and toughness rendered it suitable for hammering leather on, and so it was used for half a century by the old shoemaker from whom I procured it; he said that it had been used by the man from whom he got it for some 30 or 40 years previously—how much older it was, he could not say. Though a piece of leather was interposed between the hammer and the stone, it has been hollowed out into a shallow basin by the repeated blows; while a natural hole in the side has determined where they should place the pincers, and the small well-worn indent caused by them may be seen beside it.

The name raises a question of some philological interest. The old shoemaker of Anglesea said it was called *carreg-lab* from *Uab* a blow, because the leather was beaten on it. In England, where a similar stone is commonly used it is called *lap-stone*, and the reason assigned is, because it is held on the *lap* when used.

Mr Skeat adduced the Old English verbs to *lam* and to *lap*, meaning to hit, strike; and quoted the line

“I heard the water lapping on the crag.”

Tennyson, *Morte d'Arthur*.

Mr W. M. Fawcett gave a short description of the *Basilica and Porta Nigra* at Trier. He explained by drawings from Brower's *Antiquities of Trier* (see illustrations annexed) the extent of really old work which remained in the Basilica at the end of the seventeenth century, and by photographs the fearful extent to which restoration had been carried. He shewed that a large portion of the fine old Archbishopal Palace has been pulled down to make room for a nineteenth century copy of Roman work with a modern roof, the result of which is far from satisfactory.

In explaining the Porta Nigra he quoted from Mr E. A. Freeman's article on Trier in the *British Quarterly Review* (July, 1875), and related the strange changes that the gateway has been subjected to.

In Archbishop Poppo's time the lower part was entirely filled up, and it was turned from a gateway into two churches, one of which occupied the first floor, and was approached by a grand flight of steps, and the other was above it, and was crowned with a clearstory with a tower and spire at one end, and an apse at the other. Thus it remained until in the 17th century it fell into the hands of the Jesuits, and under their care the upper church had the simple rude Roman arches carefully moulded and carved with Italian work of that date.

Almost at the same time that the old Basilica which had never before been anything but a secular building was so ruthlessly turned into a church, the civil power seized the Porta Nigra, and converted it into a ruin. The tower and spire and clearstories were all taken down at the early part of this century, and more lately the flight of steps has been taken

away, and the soil excavated to the original level when the building was erected.

Mr Fawcett also laid on the table two photographs of Mainz Cathedral, shewing the change that has been made in the western dome. He also shewed a photograph of a curious slab to Hildegarde the second wife of Charlemagne, who died in 794, and this slab now has the date both in *Latin* words and *Arabic* numerals. He mentioned that in Jesus College the coffin-lid to Rosa Bertha has also '1261' in Arabic numerals; but these figures he always considered to be of much later date.

March 4, 1878. Professor C. C. Babington, President, in the chair.

Dr Pearson exhibited a photograph of the dilapidated Roman monument at *Turbia*, on the mountain above Monaco, on the road from Nice to Mentone, and anciently known as the Trophy of Augustus. According to Pliny (*N. H.* III. 20), the inscription stated that it was erected in honour of Augustus, when Pontifex Maximus, in the xivth year of his Imperial, and the xvith of his Tribunitian authority, to commemorate the subjugation of the Alpine tribes. The former of these eras is not an easy one to reckon from¹, but the latter is allowed to commence with the year 23 B.C. and brings us to B.C. 7 as the date of the inscription, at which time Augustus was already Pontifex Maximus, having assumed that office in the year 12, on the death of Lepidus the ex-triumvir.

It seems likely however that it was *designed* earlier. Passing over the fact that the nearest important conquest achieved under Augustus in the vicinity was that of the Salassi in 25 B.C.; it is probable that we have a reference to its contemplated erection in the lines of Virgil, describing the conflict of Cæsar and Pompey :

Aggeribus socer Alpinis atque arce Monæci
Descendens, gener adversis instructus Eois.

Æn. vi. 830, 1.

¹ According to M. Cohen, *Monnaies de l'Empire*, p. 40, the years in which Augustus assumed the Imperial dignity succeeded each other at quite irregular intervals: the first one specified on a coin being the vith, about 725 A. U. C. (No. 50, in M. Cohen's list). The two dates, *viz.* the Imperial and the Tribunitian, appear together on coins but seldom: we have IMP. IX. TR. PO. V. on three described by this writer: *viz.* Nos. 34, 37, 40. I find IMP. XIII. in one No. 155, but without TR. PO. In the inscription on the arch at Susa, we have TR. PO. XV. IMP. XIII. I have never seen this monument, which is almost exactly coeval with that described in this paper, but a full account of it will be found in the volume of the *Corpus Inscriptt. Lat.* recently issued, Vol. v. 2, p. 815. The letters of the first line are $5\frac{1}{2}$, those of the rest $3\frac{1}{2}$ inches high: and the dimensions of those on the Arch at Turbia may very well have been nearly the same.

It is well known that the poem was commenced while Augustus was absent in Gaul and Spain, B.C. 27—25; that the sixth book contains a reference to the death of Marcellus, B.C. 23, and must have been finished by the year 19, the date of the poet's death. Mr Conington, in his note on the passage, says on the word *Monæcus*: "There is a difficulty in this specification of the place; as this is not otherwise known to have been the way by which Cæsar entered Italy. The most reasonable supposition seems to be that Virgil wrote as a poet, not as a historian." It seems more natural to say that he wrote as both; and that he wished to make a flattering reference to the monument lately decreed to be erected in honour of the Emperor on the mountain road above Monæcus. If careful attention be given to the words of Dio Cassius (LIII. 26), it will probably be admitted that the triumphal arch often taken to have been decreed in the year 25 B.C. in honour of Vinicius, a successful commander of the day, was really in honour of Augustus¹. Such an interpretation is most agreeable to the principles of the Imperial *régime*, and gives us a date at which the monument may well have been commenced; it will then have been completed after Augustus' second visit to Gaul in 16—13 B.C., and the successes of Tiberius and Drusus in the Rhaetian Alps. If it is thought that the present relics, now exhibiting only a mass of masonry thirty or forty feet high, cannot well be the remains of an arch, it is not unlikely on the other hand that the design may have been changed in the interval; and the recent example of the long period of years spent in completing the statue of the late Duke of Wellington shews us that a period of eighteen years is not too long to allow for the interval between the first contemplation and the completion of the work. On the other hand I am not aware of any remains existing in the Alps, or elsewhere, to which the words of Dio can well be understood to refer; unless it be to the Arch at Susa; and this is improbable, partly because there is no reference at all in the context to Cottius, the Alpine chief, under whose auspices it was erected: and partly because the operations of Vinicius are said by Velleius Paterculus to have been undertaken against the Germans, by Dio, some Celtic tribes, but there is nothing to connect them with the peculiar circumstances under which the prince just mentioned became the favoured ally of the Empire. It is true there remains the Arch at Aosta (*Augusta Prætoria*) unaccounted for, but its date seems uncertain.

It is said by M. Millin², a French archæologist, that Marshal Villars, the celebrated adversary of Marlborough, partially destroyed the monument during his military operations in those parts, for fear of its affording advantages to an enemy attempting the passage of the mountains at that point. Mr E. H. Bunbury, in a good article on *Monæcus* in the

¹ This is Mr Lynam's view: *Roman Empire*, i. 18.

² *Voyage en Savoie*, ii. 136.

Dictionary of Geography, names Vauban instead as the culprit. It seems more probable that the responsibility must rest with Marshal Catinat, who was the French general on that frontier in the war terminated by the peace of Ryswick, and took the citadel of Nice by siege in 1691. It is true that Villars died at Turin in 1734, after a campaign in Lombardy; and Vauban was present at, though he did not direct, the unsuccessful siege of Turin in 1706; but it does not seem from their biographies that they were ever employed near Turbia.

Mr Marshall, of Ely, was introduced to the Society, and laid before the meeting the original Court-Rolls of the Manor of Littleport from 1317 to 1327, of which he read a full description. (See Communications, Vol. IV., No. IX.)

March 18, 1878, Professor C. C. Babington, President, in the chair.

The following new Members were elected:

Charles Walter Moule, Esq., M.A., Corpus Christi College.
 Rev. Arthur Willink, M.A., Emmanuel College.
 William Loudon Mollison, Esq., B.A., Clare College.
 Joseph Alfred Bradney, Esq., Trinity College.
 Charles Henry Clarke, Esq., Sidney Sussex College.
 William Wareing Faulder, Esq., Downing College.
 Thomas Henry Dignes La Touche, Esq., St. John's College.

Mr Marshall, of Ely, exhibited an account of the old Chapel of Sidney Sussex College, with a ground plan and elevation, written by James Essex, the well-known Cambridge architect of the last century, in 1776, when he was employed to build the new Chapel. Mr J. W. Clark shewed that it was a rough copy of the more detailed description which exists among Essex's MSS. given to the British Museum by Samuel Kerrich, D.D., Fellow of Corpus Christi College.

Mr T. H. Naylor exhibited and described several antiquities, mostly found at Chesterton, including a very rare *quinarius* of Cunobeline—obv. Horseman; rev. CVNOBELINI (figured by Evans in his *Ancient British Coins*, Pl. x. No. 1); a Chesterton farthing, and a small silver crucifix, found at Barnwell.

Mr J. W. Clark exhibited (by favour of the owner, Mrs Mellish) a very curious and interesting chained Psalter and Horæ, which was written for one John Harpur, of Russhale, in Staffordshire, in the middle of the fifteenth century, and which had been in possession of his descendants ever since. The body of the book, which is a large folio volume¹, contains the usual Sarum Kalendar, Horæ B.V.M., Litany, and Vigils of the Dead,

¹ Mentioned in Shaw's *History of Staffordshire*, vol. ii. pp. 67, 68.

followed by a complete Psalter, with the usual canticles and another Litany. At the end of each Nocturn of the Mattins Psalms are to be said some "preces et orationes" with an anthem "secundum magistrum Richardum Kaster" sometime Vicar of St Stephen's church, Norwich, in the year 1413. The first collect begins "Respice quesumus domine super hanc famulam tuam..." as if the book were written to be used in the oratory of a lady, perhaps that of Alianore, the wife, or Elizabeth the mother-in-law, of John Harpur. The Kalendar contains, besides some family obits entered in common writing, an entry by the original scribe of the consecration of St Wulstan's church, Russhale, on St Wulstan's day (Jan. 19), 1440; and on the last page of the Kalendar-quire, facing the commencement of the *Horae B. V. M.*, the scribe has written, in lines of blue, crimson, black, and red, three 8-line stanzas, each having the same rhymes, about the book itself and John Harpur, for whom it was written. They begin thus:

"This present book legible in scripture
 Here in this place thus tacched with a cheyn
 Purposed of entent for to endure
 And here perpetuelli styлле to remeyne..."

The border round the opposite page contains at the foot a shield, argent, a lion rampant within a border engrailed sable; which Edmondson gives as the arms of Harper.

But by far the chief interest of the book lies in the preliminary quire, prefixed by the scribe to what is properly a service book. This contains, in the first place, ten 8-line stanzas entitled "A dietario for the body" (beginning "For helthe of body couere for colde thin heed," very common in MS., and printed by Caxton, and many times since); and then fifteen 7-line stanzas by Lydgate on the Kings of England from William the Conquerour to Henry VI.; followed by three 7-line moral stanzas (beginning "Whanne fredam of princes hem doth forsake"). These are at once followed by an account of the family of Russhale from the Conquest to the time of Henry VI., when the book was written. It begins thus: "In suche tyme as William sumtyme duc of Normandie come into Engelonde with his Roial enarme out of his Duchie of Normandie and so by his Chyualrie and iust tytyle and by bataile put out kynge Harald that tyme kynge of Engelonde and conqueride the Royalme of Engelonde, by the whiche cause he is called William conquerour. Of whos lynage succeeded the kyngis of Engelonde unto this day. In these dayes as wel bifore the seyde conquest and in tyme of the conquest and aftir ther dwellide a Squyer at Russhale that was lord of the same lordshipe the whiche was callid Neel of Russhale in latinis uerbis Nigellus de Russhale whos auncestre and progenitour com into this lande with the saxon Conquerour that broghte with him the langage of Englysshe and so lynially by succession was enheritid of the sayd lordshipe from the comynge in of the saxons

til william Conquerour com in to Engelonde..." The story ends (with the ninth column of writing): "And in kynge Henries dayes the syxthe. Alianore doghtir and heyr to the seyd William of Russhale at the age of .xv. zeer was weddid to John Harpur And withinne two zeer aftir deyde the seyd William of Russhale. And withinne a zeer after the seyd William: deyde his wyf Elizabet on whos 'soules god haue mercy." The book and the land connected with it passed through daughters into the Leigh family, and the story is continued from where the original breaks off, by various hands from time to time, ranging through the reigns of Elizabeth, James I. and Charles I. The old boards were re-covered in the seventeenth century, but the original chain still retains its place, with its long links as in most of the specimens of chained libraries still suffered to exist. For two hundred years no entries have been made, except one account of Edward Leigh from Wood's *Athenæ Oxonienses*; and the book has ever since been preserved as a family treasure.

It should be mentioned that, on a vacant space following the "Dietary for the body" noticed above, there is, in an early though not the original hand, a copy of Chaucer's "Fle fro the pres," with the title "Le bon counsell de Chawcer." Also, on a vacant page at the end of the Kalendar, there is a fifteenth century copy of Chaucer's Balade of Gentillesse ("The firste stokke..."), followed by a number of proverbs (some in rhyme), of which the following may be taken as specimens:

"The begynnyng of al wysdam ys
To drede goddes ryghtwsnes."

"Who that wole be holy helpul and ryche
Go betyme to hys bed and ryse erlyche."

"Yowthe may age ouer renne, bote not ouerrede."

Mr Lewis exhibited by favour of the Rev. T. T. Sale, rector of Anstey (Herts), a conical glass vase, $3\frac{1}{4}$ inches high, containing human blood, which was found in Anstey churchyard during the repairs of the chancel in 1871.

Mr Robertson, of Trinity College, read a memoir on ancient coining implements, suggested by a pair of coin-dies, belonging to the Secretary of the Society, which were exhibited at the same time (See Communications, Vol. IV., No. X.)

May 13, 1878, Professor C. C. Babington, President, in the chair.

The following new Members were elected:

William Marshall, Esq., of Ely.

Charles Eustace Grant, Esq., M.A., King's College.

Mr Magnússon read a paper on a Norwegian *clog-almanack* which had been brought to this country from Norway as early as 1826 or 1829, by the Rev. Richard Carter Smith, M.A. (See Communications, Vol. IV., No. XI.)

May 27, 1878, Professor C. C. Babington, President, in the chair.

The following new Member was elected :

Reginald Dutton, Esq., Trinity College.

Professor C. C. Babington was re-elected president, Mr Fawcett treasurer, and Rev. S. S. Lewis secretary for the next year. The following new Members of Council were elected: the Rev. Dr Luard, Rev. Prof. Mayor, Rev. Prof. Skeat, Rev. T. Brocklebank, F. C. Wace, Esq. The President and Mr Wace were appointed auditors. (See the summary of Accounts, p. iv.)

The Annual Report of the Council was presented. (See p. iii.)

Prof. Hughes exhibited a polished greenstone implement, which he had himself dug out of the surface soil in the gravel-pit close to the road below the cave of Le Moustier in Dordogne. He called attention to the circumstance that, although flint was abundant and thousands of worked flints of the palaeolithic age were found in the cave above and scattered about, this neolithic weapon was made of a rock which did not occur anywhere in that district.

He exhibited a flint also of the Le Moustier type, which he had found in the cave of La Madelaine, some bronze celts forming part of a hoard found near Tours, and a bronze coin of Probus (276—282 A.D.) with the inscription IMP. C. M. AVR. PROBVS. P. F. AVG., *rev.* SOLI. INVICTO and the device of Phoebus driving a quadriga, found near the Observatory, Cambridge, at the beginning of this month.

Mr A. F. Griffith, of Christ's College, was introduced to the Society, and made a communication on a flint implement found in the gravel-pit at Barnwell, near Cambridge. (See Communications, Vol. IV., No. XII.)

A communication was read from Mr E. Hailstone upon a gold ring, which had been found at Montpensier in Auvergne in 1866. (See Communications, Vol. IV., No. XIII.)

LAWS.

I. THAT the Society be for the encouragement of the study of History, Architecture, and Antiquities; and that such Society be called "THE CAMBRIDGE ANTIQUARIAN SOCIETY."

II. That the object of the Society be to collect and to print information relative to the above-mentioned subjects.

III. That the subscription of each Member of the Society be *One Guinea* annually; such subscription be due on the first day of January in each year: on the payment of which he shall become entitled to all the Publications of the Society, during the current year.

IV. That any person who is desirous of becoming a Member of the Society, be proposed by two Members at any of the ordinary Meetings of the Society, and ballotted for at the next Meeting: but all Noblemen, Bishops, and Heads of Colleges, shall be ballotted for at the Meeting at which they are proposed.

V. That the management of the affairs of the Society be vested in a Council, consisting of a President, (who shall not be eligible for that office for more than two successive years,) a Treasurer, a Secretary, and not more than twelve nor less than seven other Members, to be elected from amongst the Members of the Society who are graduates of the University. Each Member of the Council shall have due notice of the Meetings of that body, at which not less than five shall constitute a quorum.

VI. That the President, Treasurer, and Secretary, and at least three ordinary Members of the Council shall be elected annually by ballot, at a General Meeting to be held in the month of May; the three senior ordinary Members of the Council to retire annually.

VII. That no Member be entitled to vote at any General Meeting whose subscription is in arrear.

VIII. That, in the absence of the President, the Council at their Meetings shall elect a Chairman, such Chairman having a casting-vote in case of equality of numbers, and retaining also his right to vote upon all questions submitted to the Council.

IX. That the accounts of the receipts and expenditure of the Society be audited annually by two auditors, to be elected at the Annual General Meeting; and that an abstract of such accounts be printed for the use of the Members.

X. That the object of the usual Meetings of the Society be, to read communications, acknowledge presents, and transact miscellaneous business.

XI. That the Meetings of the Society take place once at least during each term: and that the place of meeting and all other arrangements, not specified in the Laws, be left to the discretion of the Council.

XII. That any member be allowed to compound for his future subscriptions by one payment of *Ten Guineas*.

XIII. That Members of the Society be allowed to propose Honorary Members, provided that no person so proposed be either resident within the County of Cambridge, or a member of the University.

XIV. That Honorary Members be proposed by at least two Members of the Society, at any of the usual Meetings of the Society, and balloted for at the next Meeting.

XV. That nothing shall be published by the Society, which has not been previously approved by the Council nor without the author's name being appended to it.

XVI. That no alteration be made in these Laws, except at the Annual General Meeting or at a special General Meeting called for that purpose, of which at least one week's notice shall be given to all the Members; and that one month's notice of any proposed alteration be communicated, in writing, to the Secretary, in order that he may make the same known to all the Members of the Society.

It is requested that all Communications intended for the Society, and the names of Candidates for admission, be forwarded to the Secretary, or to the Treasurer, 1, Silver Street, Cambridge.

Subscriptions received by the Treasurer, or by his Bankers, Messrs Mortlock and Co., Cambridge; or at the Bank of Messrs Smith, Payne, and Smith, London, "To the Cambridge Antiquarian Society's account with Messrs Mortlock and Co., Cambridge."

SOCIETIES IN UNION

FOR THE INTERCHANGE OF PUBLICATIONS, &c.

1. The Society of Antiquaries of London. C. K. WATSON, M.A., *Secretary*, Burlington House.
2. The Suffolk Institute of Archæology. S. J. HARRISON, *Hon. Secretary*, Bury St Edmund's.
3. The Sussex Archæological Society. J. COOPER, F.S.A., *Librarian*, Lewes.
4. The Exeter Diocesan Architectural Society. P. B. HAYWARD, *Curator*, Cathedral Yard, Exeter.
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12. The Royal University of Christiania. The Baron HOLST, *Director of the Foreign Literary Exchange of Norway*.
13. The Commission Impériale Archéologique of Russia. Comte Serge STROGANOFF, *President*, St Petersburg.
14. The Peabody Museum, Cambridge, Massachusetts, U.S.A. F. W. PUTNAM, *Curator*.
15. The Smithsonian Institution, Washington, U.S.A. SPENCER F. BAIRD, *Secretary*.

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BEING

PAPERS PRESENTED AT THE MEETINGS

OF THE

Cambridge Antiquarian Society.

No. XX.

BEING No. 2 OF THE FOURTH VOLUME.

1877—78.

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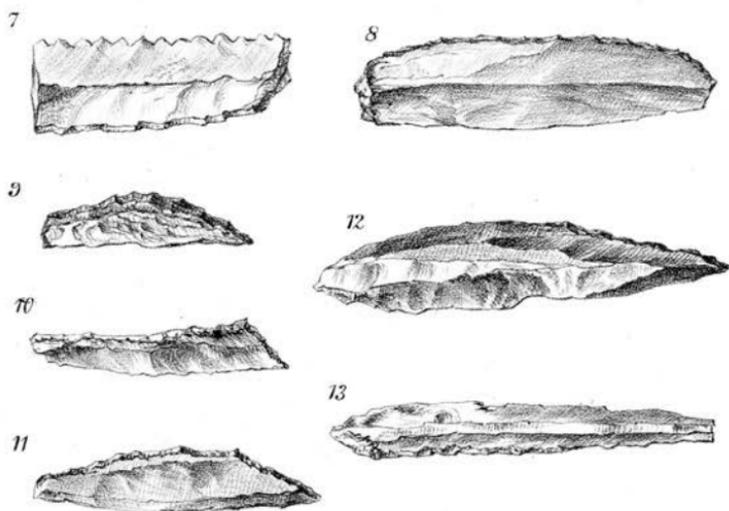
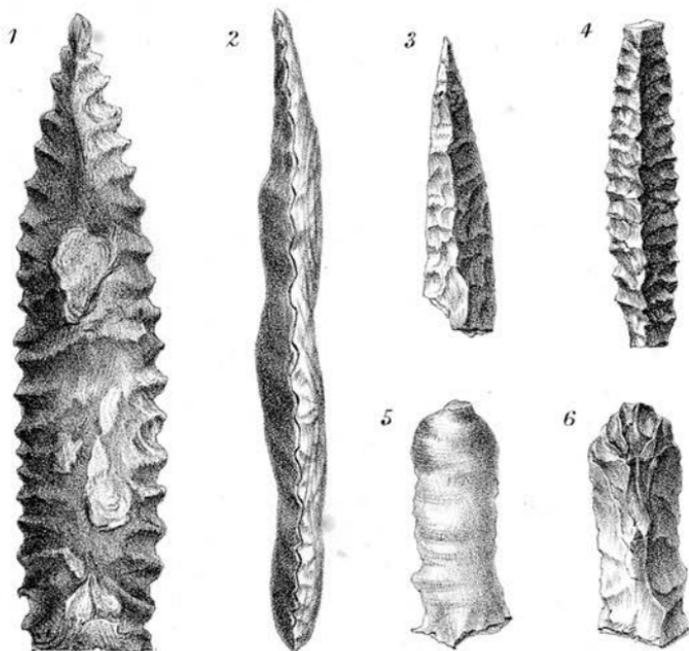
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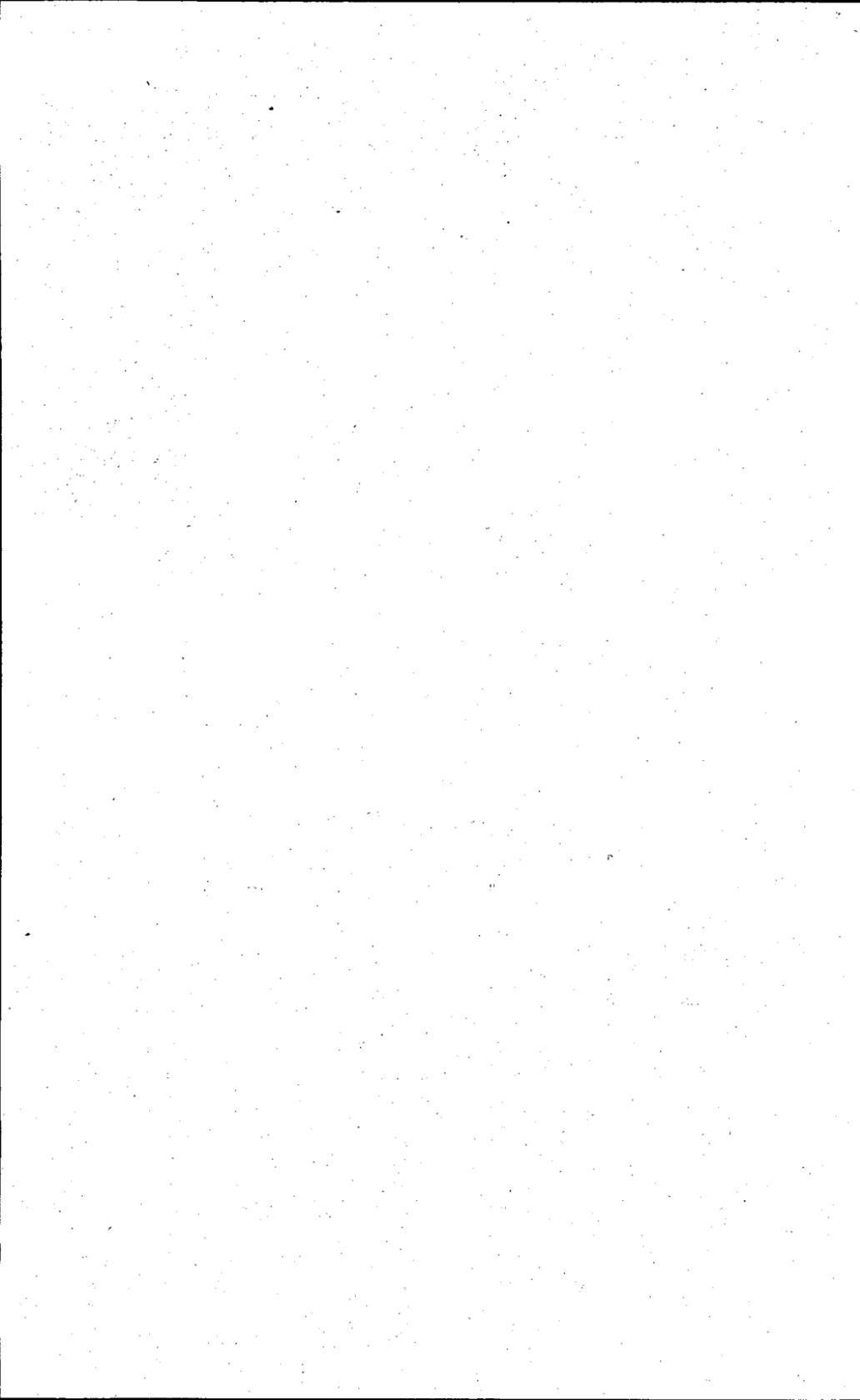
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1878

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VIII. ON THE FLINT IMPLEMENTS FOUND AT HELWAN
NEAR CAIRO, by A. J. JUKES BROWNE, Esq.,
B.A., F.G.S. Communicated by PROF. HUGHES.

[November 12, 1877.]

VERY little has hitherto been written regarding the occurrence of flint implements in Egypt; notice has been taken of some found in the neighbourhood of Thebes by MM. Arcelin and Lenormant, and the existence of those at Helwan was first made known in 1872.

They were discovered by Dr W. Reil, the director of the sanatory establishment at that place, who notified the fact of their occurrence to the Ethnological Society of Berlin, and placed a collection of them in the Boulak Museum at Cairo. In a pamphlet, printed in 1874, Dr Reil describes the neighbourhood of Helwan, and mentions the flint flakes "which occur on the surface of the sand near the springs;" but he has not published any detailed account of them. I propose, therefore, to offer a few remarks upon those I was able to collect during a residence of six weeks at Helwan in the spring of this year, noting their character and mode of occurrence, and prefacing my observations by some description of the physical geography of the district in which they are found.

A reference to any good map of Egypt will show that the valley of the Nile terminates at Cairo; the barren limestone hills, between which the river has hitherto pursued its course,

open out suddenly at this point, and trend away to the eastward and westward, giving place to the wide-spreading fertile plain of the Delta.

The mountains which bound the eastern side of the valley are known by the name of the Arabian chain; they commence with the Mokattam hills, just above the citadel of Cairo, which present a bold cliff-like front running for some distance to the southward; a wide lateral valley then interrupts the line, which however is carried on by the Toura and Helwan ranges. These cliffs are separated from the cultivated alluvial plain by an intervening strip of barren sandy desert, some three or four miles wide, forming an irregular terrace, which has a general slope from the base of the hills to the water-line of "high Nile."

The elevation of this desert plain varies considerably, but appears to be greatest near Helwan, where the surface is estimated at being from 100 to 120 feet above the average level of the river. A shallow valley, called the Wady Karafich, may be taken as the northern limit of this higher portion of the plain, which is traversed by another, somewhat deeper, about three miles to the southward; within the space thus indicated some 11 or 12 thermal springs rise up to the surface, and the new village of Helwan is built at a spot where several of these occur near together, and drain into a third intermediate depression called the "valley of the Palm-trees."

These shallow waddies are the continuations of deep valleys or ravines which descend from the hills, and breaking through the cliff line above mentioned, open out on to the lower level. The form and sculpturing of these rugged valleys bear evidence that the action of rain is anything but unknown in Egypt; the surface indeed being entirely unprotected by any kind of vegetation, and the soluble limestone rock being thus exposed to the action of the atmosphere, every little rain-shower takes effect in loosening the beds and washing down the sand. More or less rain falls every winter, and occasionally, once perhaps in

two or three years, heavy rains occur, and torrents of water sweep down the valleys, carrying away the loosened blocks, and spreading the *débris* over the plain below. An examination of this plain shows that it is, to a great extent, formed by the accumulation of such transported materials; the thickness of these varies considerably at different places, but they are everywhere found to rest upon a platform of solid rock, which projects outwards from the foot of the cliffs. Quarries have long been worked in this underlying limestone scar both at Toura and Helwan, and the inequalities of its surface are seen to bear an evident relation to the present valley system, ridges of the rock sometimes rising to the surface between the waddies. Thus it seems evident that the Arabian chain has been cut back to its present position by the continued action of rain and running water operating upon the cliff-line originally produced by the current of the Nile, and that the *débris*-covered scar may be taken as a measure of this recession. It is difficult to ascertain the actual extent to which the plateau is underlaid by this rocky scar, as the transported materials have probably been pushed out beyond its limit, so as to encroach upon the alluvial deposit of the plain.

The nature of the materials composing the plateau varies from layers of fine mud to beds of coarse angular *débris*; thus, in Wady Karafich, the following succession was noted in descending order:

	Feet.
4. Surface <i>débris</i> of sand and stones infiltrated with various salts	4
3. Dark grey clay, with calcareous concretions	3
2. Bed of sand, with basement layer composed of large flint pebbles, and fragments of silicified wood	1
1. Yellow false-bedded sands, with large lenticular ironstone concretions	8
Total	16

In the railway cutting beds of sand and clay are to be seen banked up against the ridge of limestone which rises up out of this valley. The wells and excavations at Helwan itself shewed a considerable depth of pure sand infiltrated with sulphur and other mineral matters.

The surface of the plateau is generally composed of loose sand or sand and stones, but in the neighbourhood of the springs these are often compacted together by the saline deposits from the thermal waters which here permeate the soil; and it is on these surfaces, which are generally worn into irregular ridges and hollows, that the flint flakes and tools are principally to be found.

They do not occur below the surface, except where they have been covered up by subsequent sand-drifts; this has often taken place in the immediate vicinity of the springs, where the blowing sand is arrested by the general dampness and growth of herbage, and the ground is always more or less raised in consequence.

In excavations in these sand-drifts flint implements have been met with at various depths, but none have ever been found in the beds of mud and sand which have been brought down by the streams, and are exposed in the cuttings and diggings by the side of the railway.

The normal position of the implements is therefore on the surface of the plain; but it is to be noticed that they chiefly occur on slopes overlooking the greater depressions, where the hardened ground may have existed as a surface for many hundreds, or perhaps thousands, of years; and there are at least five of these spots where the flakes and implements occur in such abundance as to suggest the idea that these are the actual localities where the work was carried on, the very manufactories, in fact, where the tools of the period were made. The probability of this is increased by the fact, that the form of the flakes and the nature of the instruments differ considerably at

each of the five places referred to. Thus, two lance-heads were found at the first of these localities and none anywhere else, saws also were especially abundant, and flakes were few. The fifth locality was characterised by the presence of long knife-like implements, while flakes were very abundant, rough, and comparatively large; at the intermediate places flakes were numerous but very small, and curious little short knives or scrapers were abundant at the third locality. The following is a list of the forms found, shewing their relative abundance.

	Loc. 1.	Loc. 2.	Loc. 3.	Loc. 4.	Loc. 5.
Lance-heads	two	.....	.....	.....	.....
Arrow-heads	one	.....	.....	one	.....
Triangular tool	one	.....	.....	.....	.....
Saws	many	few	one	.....	.....
Long scrapers	.....	one	.....	.....	many
Thick scrapers	.....	two	several	.....	.....
Short knives	.....	few	many	.....	.....
Worked flakes	.....	many	many	many	few
Large flakes	.....	.....	.....	few	many
Small flakes	few	many	many	many	few

It will be seen from the above table that no heavy weapons have been found at Helwan, and yet we cannot suppose that the manufacturers of such well-made saws, knives, and lance-heads, were entirely without such tools as hammers, adzes, &c. The circumstance is strange, but Mr Skertchly informs me, that parallel cases occur near Brandon in Suffolk, assemblages of small flakes and scrapers occurring at certain spots as if manufactured there, while there is an entire absence of celts and the larger kinds of instruments. He also states that there is a great resemblance in shape between the Egyptian and the small Suffolk implements. The former I will now proceed to describe.

The two lance-heads are good specimens of flint work, the whole surface being worked over, and the sides chipped out into

serrated edges; they are about three inches long, and the base is simply squared and thinned off for insertion in the handle. One of them is represented on the plate, figs. 1, 2; the other appears to have been left unfinished, or else some faultiness in the flint itself prevented the workman from fully developing the serrations on one side, which is only reduced to a wavy edge. At the same locality I picked up a portion of a curious pointed instrument; made apparently from a flake whose section was almost an equilateral triangle; one side of this has been left flat, while the other two have been worked up by a series of neat, even, and precise strokes, which only a skilled workman could produce; the point has unfortunately been broken off, see fig. 4.

The best arrow-head was found about half a mile south of the Hotel, and is a beautiful piece of workmanship; its length is about $2\frac{1}{2}$ inches, and its breadth near the base about half an inch, so that it is of an elongately lanceolate form; the "tag-end" exhibits two small nicks for the purpose of binding it on to the shaft in the same way as some of the American arrow-heads were secured. The point of this specimen was broken off, but I found the upper half of another at the first locality; the latter is shown in fig. 3.

The saws are, perhaps, the most curious and interesting of the Helwan implements; these vary from two to four inches in length, and seem to have been fashioned in the following manner,—a good long flake of even width was taken, the bulb of percussion struck off, so that it might be of equal width throughout, and the ends squared and neatly sloped off. One side or edge was then nicked out into a series of teeth, wide or narrow according to pleasure, and even in some cases cut into a graduating series from large to small teeth. The instrument was then probably set in a wooden holder, like that figured by Sir John Lubbock in his *Prehistoric Times* (p. 126).

In many instances the teeth are much polished, and more

or less broken, as if by dint of hard service, while, in some of them, both sides are worked into serrations, one edge being more broken than the other, as if it had been used up and the other side had been chipped out, in order to refit the instrument for service. That shown in fig. 7 is a broken specimen, but the saw edge is well developed.

At the third locality, which was situate near a spring, on the slope of a knoll overlooking the cultivated plain, and about a mile and a half from the old village of Helwan, very small knife-like instruments occurred in special abundance; these vary in length from one to nearly two inches, but the greater number are about an inch and a quarter long. A few of them are almost semilunar in shape, and similar to those used as knives and skin-scrapers by the Esquimaux (see Sir J. Lubbock's *Prehistoric Times*, pl. I. fig. 3); in the rest, one end is left blunt, and the other brought sharply down to a point, which is generally very sharp. See figs. 9, 10, 11. These bear a greater resemblance to the flakes from Kent's Cavern, figured and described at p. 456—7 of Dr Evans' *Stone Implements of Great Britain*. They are all made on the same pattern, and one side is always blunted or worked up to form a back by numerous slightly oblique or nearly vertical chippings.

It is however a question whether this blunted edge is the result of wear or of intentional working in the first instance. Dr Evans thinks that such flakes were used as scrapers, and were set in wooden handles which protected the sharp edge, while the other side was gradually ground down by wear; others, looking to the sharp edge and pointed end, believe that they were intended for some kind of cutting work. This question I have discussed elsewhere¹, but it is interesting to note that there are three ways in which such an edge may be produced; (1) by pressing a hard piece of bone or stone against

¹ *Journ. Anthropol. Inst.*, Vol. VII. p. 396.

the flint and working it so as to break off small pieces from the edge; (2) by scraping the flake along some hard substance, and this may have been done either for the express purpose of forming a back to the flake, or for the purpose of cleaning the substance scraped; (3) by chipping or knapping the flake with a thin hammer in the way practised by gun-flint makers at the present day. This is done by placing the flint on a metal stake, so that the edge to be operated upon projects slightly beyond it, the hammer is then moved sharply up and down against the flint, causing numerous little particles to fly off from its under side, and thus producing a straight under-cut edge. Which of these methods was adopted by the Helwan manufacturers it is difficult to say, but on the whole it is more likely to have been one of the first two.

Several implements of another type also occurred, somewhat larger, from $1\frac{1}{2}$ to 2 inches long, and much thicker, see fig. 8; these are rounded off at both ends and worked along the back, and in one case the cutting edge was straightened and sharpened in the manner just described.

Flakes were to be found at many places, the longest occurring at the fifth locality, about two miles south of Helwan, where they were scattered about in great profusion, together with many of the cores from which they were struck. Some of the longest and thinnest shewed the same minute chipping along a portion of one side, as if they might have been used for scrapers in the manner suggested by Dr Evans; see fig. 13. They are simply flakes rounded off at the bulb-end, and vary greatly in shape and length, instead of being all reduced to the same general type like the tools shown in figures 9, 10 and 11.

Elsewhere the flakes were mostly small, but many of them are neatly worked round at the bulb-end by means of numerous short flaking strokes, and are thus converted into scrapers or "smoothers," for the round even surface of this bulb might have

been used for the purpose of smoothing down any substance that had been roughened by scraping; see figs. 5 and 6, which show the back and front of one of these trimmed flakes.

Thus almost all the flakes seem to have been utilized, and those that could not be converted into saws or knives were chipped up and evidently used in some way or other, while some of them are of such convenient shape, that they might almost be used as knives, or arrow-heads, without further working. One of these is shown at fig. 12.

In approaching the difficult problem of estimating the probable age of the flakes and implements above described, I may remark *in limine* that their occurrence on the surface does not preclude us from assigning them to a very remote date, as it would in most parts of this country, because the surface in Egypt has probably remained unchanged for a very long period of time.

Some flint weapons have recently been discovered in tombs of Ptolemaic age, but such cases seem to be rare, and those I saw in the Boulak Museum are different in type and more modern-looking than the Helwan flints. Others have been found on the soil in the neighbourhood of Thebes, and these are of a more antique and palæolithic appearance¹. Judging, therefore, merely from their general characters and style of workmanship, I should think the Helwan implements might be considered as of intermediate age between the two assemblages above indicated.

M. Mariette Bey thus speaks of them in his Guide to the Boulak Museum: "The flints having been collected on the surface of the soil, there is no evidence to prove the date of their manufacture. They may have used flint as tips for their lances and arrows, or as knives for the incision of mummies, even at the most flourishing epoch of Egyptian civilization.... Thus the

¹ Sir J. Lubbock, in *Journ. Anthropol. Inst.*, Vol. iv. p. 215.

implements may date from Pharaonic times, they may be of Greek age, and it is not even impossible that some of them may be as late as the Arabian era." I could not find, however, that the present race of Arabs knew anything about them; and the abundance of knife-like implements is somewhat in favour of the suggestion that they may have been used for the incision of mummies.

The Helwan sulphur springs have been favourite places of resort from a very remote period, and Sir Gardner Wilkinson seems to think they may have been known to the Ancient Egyptians. The locality is only four or five miles from the ruins of Thebes, and we know that the Egyptians used instruments of flint for many purposes. They practised the rite of circumcision, for which flint knives were employed at a very early date¹. Arrows with flint tips of a peculiar form, but quite different to those found at Helwan, have been discovered in the tombs². Broad-bladed knives also exist in many collections of Egyptian antiquities, which are supposed to have been used for the purpose of making the first incision in embalming the dead, according to the account given by Herodotus. Two of these knives are represented in Wilkinson's *Ancient Egyptians*³, and the smaller of these bears great resemblance to the little knife-like instruments described above.

It is possible therefore that these flints belong to a period when the inhabitants of the Nile Valley had attained to an advanced stage of civilization, but metal being still a rare commodity in the country at so early a date, they may have carried the art of flint manufacture to the greater degree of perfection. It should however be stated that Sir J. Lubbock and others believe the Theban implements to be prehistoric even as regards Egyptian History.

¹ Exodus iv. 25, and Joshua v. 2.

² See Evans' *Stone Implements of Great Britain*, p. 329.

³ *Popular Account of the Ancient Egyptians*, Vol. II. p. 164.

The discovery of flint implements is the more interesting in a land like Egypt, whose annals extend backwards over so long a period, of years; and it is to be hoped that further investigations will be pursued at Helwan and elsewhere, and that evidence will be forthcoming which will enable us to fix more accurately the time when these flint manufactories were carried on.

EXPLANATION OF PLATE.

Figs. 1 and 2. Lance-head found by Mr George Walpole at the Wady Karafich, near Helwan, and now in the Museum of the Royal Irish Academy.

Fig. 3. Part of an arrow-head from the Wady Karafich, now placed in the Christy collection.

Fig. 4. Arrow-head (?) from the same locality, now in the Christy collection.

Figs. 5 and 6. Broken flake trimmed at the bulb-end, found near the Hotel at Helwan.

Fig. 7. A small saw from the Wady Karafich.

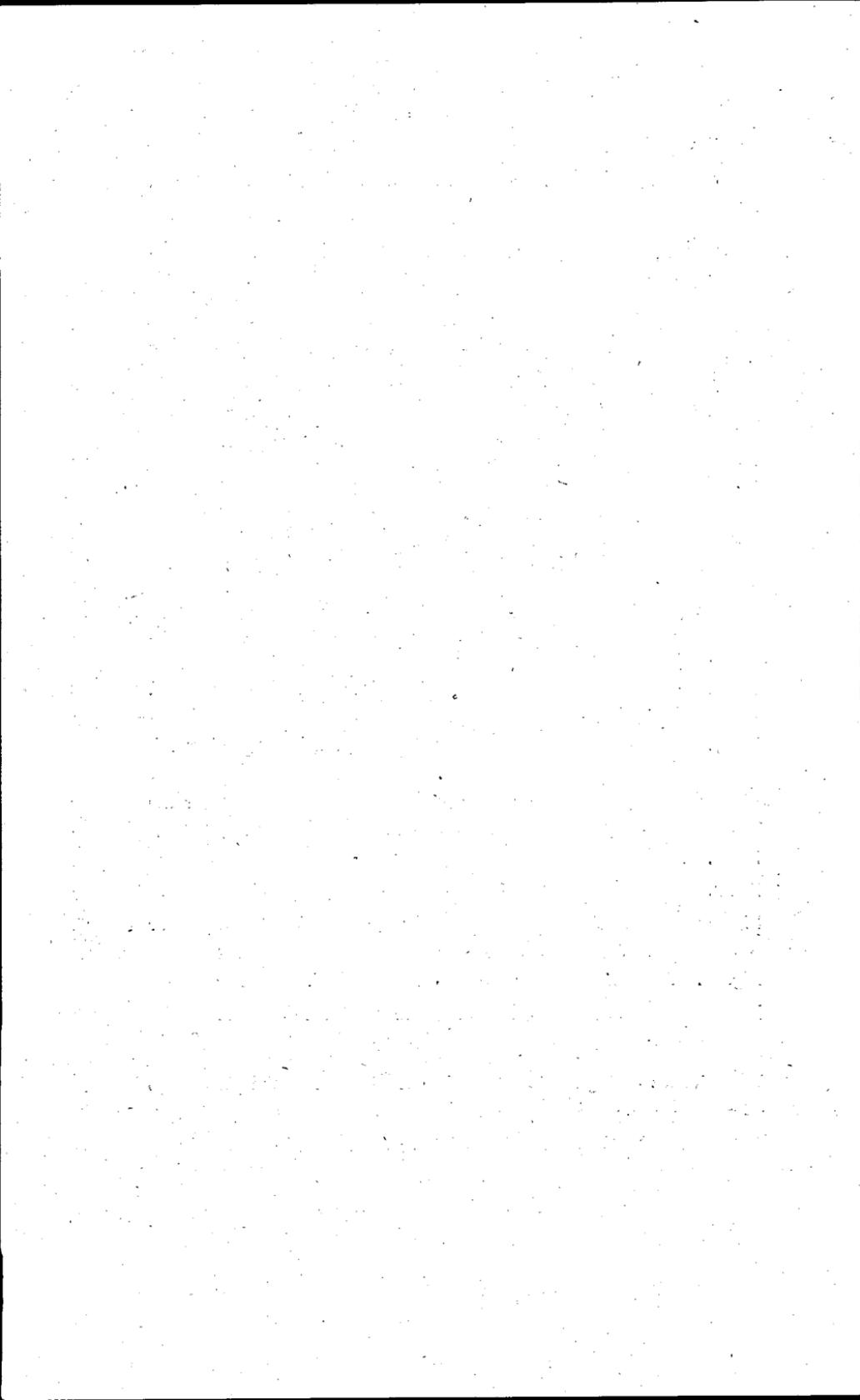
Fig. 8. One of the larger knives from locality No. 3.

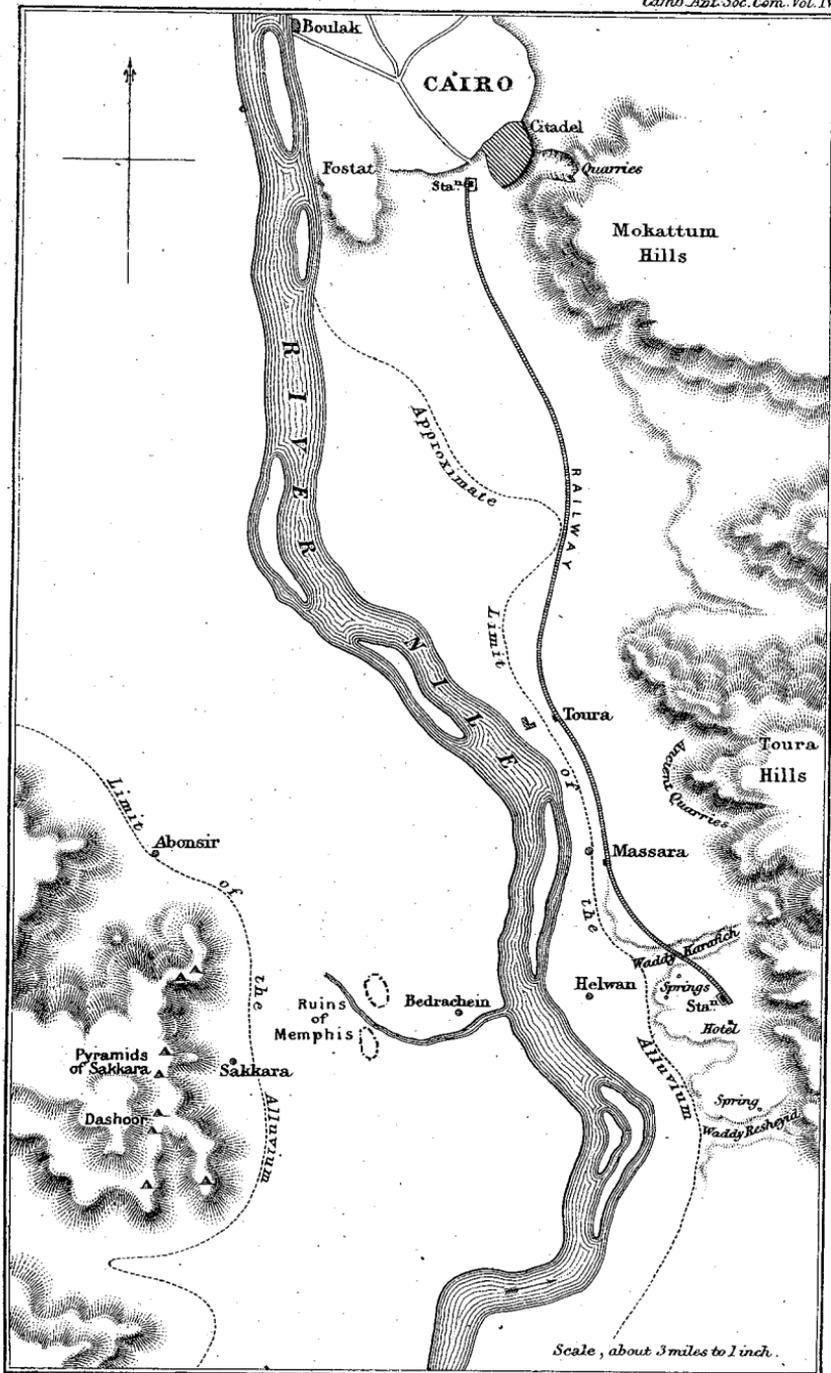
Figs. 9, 10, 11. Varieties of the smaller sharp-pointed scrapers or knives, from locality No. 3, Helwan.

Fig. 12. A flake only slightly chipped near one end.

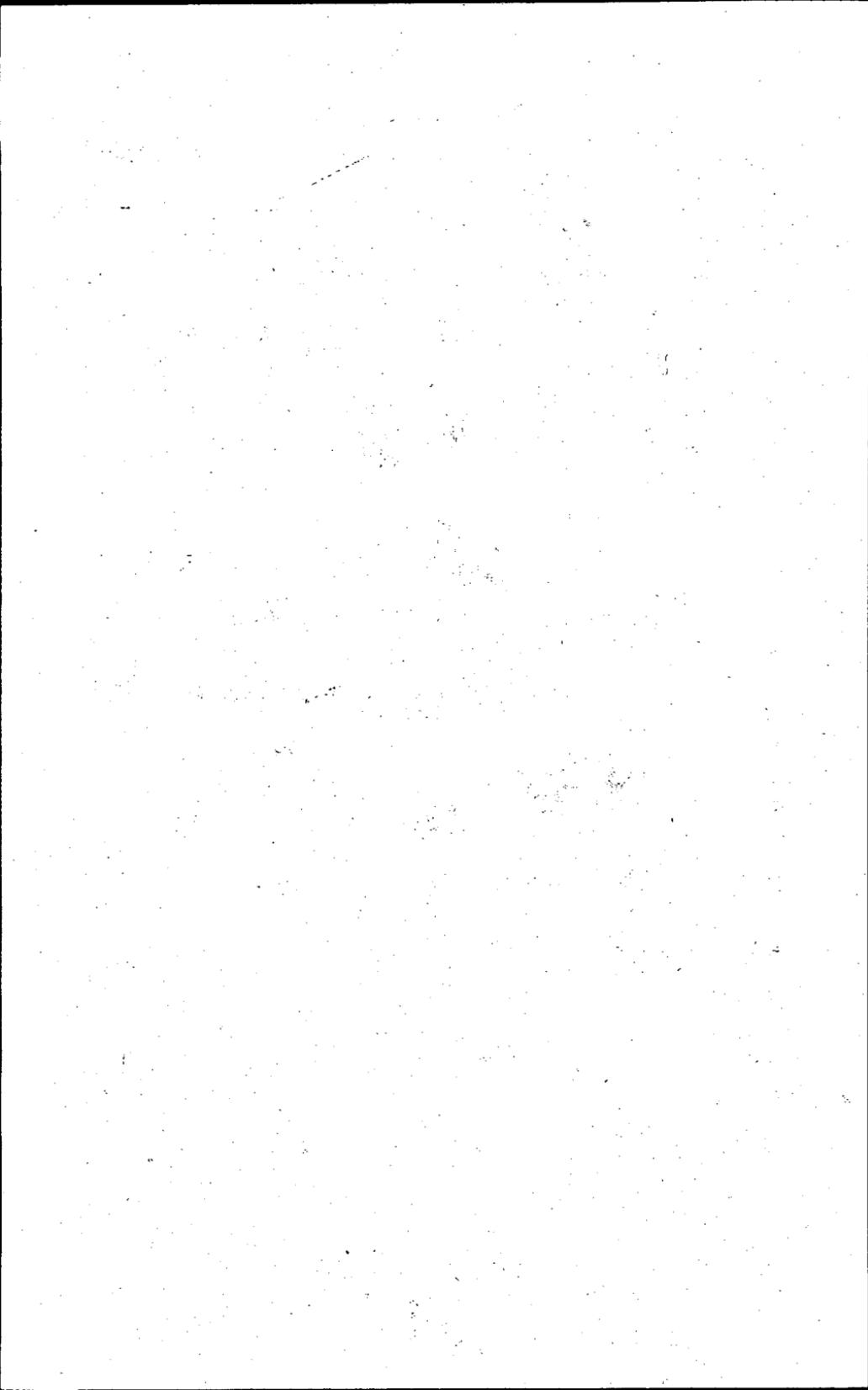
Fig. 13. One of the long narrow flakes from the Wady Reshayid, south of Helwan.

The originals of Figs. 5 to 13 are in the Museum of the Cambridge Antiquarian Society.





Scale, about 3 miles to 1 inch.



IX. ON SOME ANCIENT COURT ROLLS OF THE MANOR
OF LITTLEPORT IN THE ISLE OF ELY IN THE COUNTY
OF CAMBRIDGE. Communicated by W. MARSHALL,
Esq.

[March 4, 1878.]

History of the Finding. A few months ago these ancient Court Rolls were brought to me by Joseph Martin, Esq., of Littleport, as having been found in a carpenter's shop just as they are produced, except that they were secured by a piece of common tape, and were daubed on the outside by a broad patch of pitch, apparently to stick the rolled sheets together. When one considers that the material of which these Rolls are composed is parchment (an animal substance), and the risks of their destruction either by moisture, mildew, mice, fire and housewives, to say nothing of the being tossed about one knows not for how long, it is nothing less than a marvel, almost amounting to a miracle, that they should have survived and been brought down safely through the 593 years which have elapsed since the oldest of them was written.

Description of the Documents. The documents turned out on examination to be a continuous series of the Court Rolls of the Manor of Littleport, from the 10th Ed. II. (1316—7) to the

1st Edw. III. (1327). They are contained in 26 membranes or skins of parchment about 10 inches wide by 20 inches long, and are closely and clearly written on both sides. Twenty-five of the membranes contain the records of 59 courts, 10 of which are Courts Leet. The outer membrane, which forms a backing to the rest, is a Court Roll of the same manor, but from its more archaic character obviously of older date. It is headed "Littleport. Cur. ibidem tenta die martis in vigil. s̄ci Jacobi Apost. anno Pont. H. xxvijj." There is no King's reign mentioned, as in all the later rolls, but as the only Pontificate (of Ely) which about this period extended to 28 years was that of Hugh de Balsham¹, who occupied the See from 1257 to 1286 (29 years),

¹ "It was this Bishop," says Bentham, in his *History and Antiquities of the Cathedral Church of Ely*, "that settled the distinction of Jurisdiction between the Chancellor of the University of Cambridge and the Archdeacon of Ely in 1276. In the year 1280, from his affection to Learning, and respecting the state of the Poor Scholars in the University of Cambridge, who were much put to it for conveniency of lodging, from the high rents exacted by the Townsmen; he obtained a Licence from King Edward I. for founding a College of Students or Scholars there secundum Regulam Scolarium Oxon. qui de Merton cognominantur; intending at first as it should seem to have converted the Hospital of St John in Cambridge, where some scholars under the patronage of the Bishops of Ely then resided, into a College; but afterwards seeing occasion to alter his design he removed these scholars to two Hostles near St Peter's Church without Trumpington Gate; and by an Instrument dated March 31, 1284, ordained that they should for ever be stiled The Scholars of the Bishops of Ely; and put them into immediate and perpetual possession of those two Hostles, and of St Peter's Church before mentioned, with the tythe of the two Mills thereto belonging; all which the Brethren of the Hospital before used to have; and to which ordinance of the Bishop they submitted. By his last Will he left to his Scholars many books in Divinity and other Sciences; and 300 marks for erecting new Buildings; with which sum they purchased a piece of ground on the South Side of the said Church where they built a very fine Hall. This was the first endowed College in Cambridge. The University, in grateful respect to his memory, by an Instrument dated at Cambridge 7 Kal. Jun. A.D. 1291, and sealed with the University Seal, obliged themselves annually to celebrate a solemn commemoration of his Obit."

there can be no doubt whatever that the date of this Roll is 1285 (15 Edw. I.), or exactly 60 years older than the first skin of the regular series.

The first Roll is thus entitled: "Littleport Cur. ibidem die veneris prox. post festum Sci Tiburtii Martyris Anno 12 R. E. fil. r. E. decimo et pont. J. de Hotho primo." The 10 Ed. II. and the 1st of John de Hotham Bishop of Ely represent the year 1316—7, and the Bishops of Ely were at this date Lords of the Manor of Littleport, and so continued till 10th June 1600 (42 Eliz.) when divers ancient Manors and Estates, including the Manor of Littleport, were conveyed to the Queen her heirs and successors in exchange for other estates (Bentham, p. 196). The Earl of Hardwicke is now Lord of the Manor of Littleport.

The Courts were all held on Saints' Days, some of them, such as the one just mentioned, on the day of Tiburtius the Martyr, whose name does not appear in our reformed Calendar.

Having described the documents, the contributor of this paper feels that in making his communication to a learned body like the Cambridge Antiquarian Society, he may very likely dwell on points which to such a body are perfectly familiar, and may possess no antiquarian interest at all. If he should do so he must ask the meeting to make allowance for a person who is no professed antiquary, and who regards the documents in question merely as a layman and a lawyer. There may be, and probably are, hundreds of similar documents scattered throughout the country, equally ancient and equally interesting, and whatever is found in these Littleport Rolls may be nothing more than what may be found in many others. To the author of this paper the documents appeared interesting in this way. Littleport is a great parish of 17000 acres, 16000 of which are pure fen land, and here are documents which (inasmuch as at the COURTS BARON all the *Civil* business of the Manor was transacted, at the COURTS LEET many of the ordinary *Criminal* offences were dealt with and punished) cannot

fail to throw light upon the habits, usages, and social condition of the inhabitants of the fens upwards of 500 years ago, and at a time, be it remembered, before the oldest of the present Colleges of Cambridge was founded.

Amongst the matters of interest which we should expect to find in such a document would be the names of places, some remaining, many lost; the surnames of persons, some of which may still linger in the locality; the kind of living, the kind of dress, the employments of the people, their quarrels and offences, their physical condition, their social habits, the state of the fens as to drainage, the productions of the fens, the mode of user, and the kind of tenure which prevailed in those remote days.

It cannot be expected that these subjects can be exhaustively treated in a communication of this kind, when it is considered how voluminous the materials are and how brief the space allowed within which to condense what one may desire to say. The very most that can be done is to touch lightly on some of these points, leaving to other persons, with more leisure and more aptitude for the work, the task of submitting the documents to a more minute and searching investigation.

As to names of places in Littleport. There are "Mychel-snote," le Smale-snote, "Loftstede," "Conygreaves," "le Sour-lond," "Esthale," "Wrogewilgh," "Farnhoue," and many others which have been lost, an allusion to the "altam viam prope Pontem," shewing there was a bridge, "Portlow" which is plainly the origin of the "Portley" Hill of the present date, and the very frequent occurrence of such words as "Hulmo," and "Cruftum," which are retained in the Holmes and the Crofts of modern Littleport. "La Plaine" is also mentioned.

The names of surrounding Towns scattered through the manuscript. There are Ixninge, Dereham, Elm, Tyd, Laken-

heath, Feltwelle, Drayton, Chetisham, Helegeye (Hilgay), Hokewold, Modeneye (Modney), Milton, Ringstede, Weeting, Cambridge, Witcham, Downham, Foxton, Erheth (Earith), Ramsey, Rampton, Narburgh, Denever (Denver), Wereham, Wyggenhall, Stretham, Braham, Chatteris, Wimblington, Wilburton, Wille (Welle), Wroxham, and others. The name of "Prickwillow," a place near Ely at the junction of the Ouse and Lark, the origin of which has always been a puzzle, occurs twice, and is in both cases spelt "Pricwylgh." The second syllable is plainly the same as the modern spelling.

Surnames of Persons. Akerman, Akre, Albin, Anke, Atte Green and Atte Presthous, Bencosin (very common), Bolay, Bolle (Bull), Bindebeere, Brokenhorn (very common and runs through all the period covered by the Rolls), Bolewere (Bulwer), Bantelig (Bentley), Breton (Brittain), Bonere, Brennewater, Belde, Brett, Cosin, Capellanus, Clericus (Clark), Chareter (Carter), Fawkes, Fox, Gaybon, Godlomb, Godlob, Godlok (? Cutlack), Godchild (Goodchild), Godescarce! Hakeney, Huxtere, and Huckster, Ilger (Hilger), Kiggel, Lardener, Lovrig, Lovechild, Loveday, la Lunge (Long), le Lodere, le Vacher, le Bercher (Barker, Bearcock), le Vek (Bishop), le Peckere, le Tresorer, le Swon (Swan), Makehayt, Mountfort, Martin! (the name of the gentleman on whose premises the Rolls were found), Manumestér, Mortimer, Pinchbeck, Piscator (Fisher), Pitcock (Pidcock), Poccock, Peche (Peachy), Prest, Rushpilere, Schayl (Sayle), Sekir (Secker and Sucker), Swetegrom, Sarle (Searle), Sweyn, Tharne, Tepito, sometimes spelt Thepito, also Chepito¹, Wodcok, besides many others.

¹ This is a very common name of a very prominent person who appears all through the Rolls. Has it any connection with the modern surnames of Dobito and Dobede? In a Record of 2 Car. II., an Action of Trespass of the 21 Ed. III. is referred to as "inter Katharinam Buck querentem et Wilhelmum Trveto et alios de Littleport defendentes." Or it may be Tiptoft or Tiptoe.

Christian names. It would appear that in these remote times the Christian names of women were in considerable variety and somewhat grandisonant, even in the heart of the Fens. The following occur amongst others: Agnes, Alicia, Anniffis, Amicia, Blyda or Blytha, Cecilia, Christina, Christiana, Cassandra, Constanca, Dametta, Elisabeth, Elisota, Emma, Eva, Helena, Isabella, Juliana, Mabilla, Margaretta, Muriel, Sarra (Sarah). Reginald is not an uncommon name amongst the men.

The kind of Living. As to this, bread and beer seem to have been the staple of existence (curiously no mention is made of cheese or milk), and in the assizes of bread and beer the utmost vigilance was exercised by the Court Leet, both with regard to the price, the measure, and the quality of these two prime articles of sustenance. The "Tastatores Cerevisiae" who were appointed and sworn in, seem to have had plenty to do, as we find the names of defaulting Tapsters (they were always females) called "Gannokers" all through the Rolls continually being recorded, from which has been chiefly gathered the list of very fine female Christian names already referred to. With regard to the assize of bread there is a statute of uncertain date called "Statutum Panis et Servisie," but it is generally reputed to have been of the 18th Ed. II. The present Rolls go a long way to confirm this date, because in the Rolls of the 18th, 19th, and 20th Ed. II., we find that the statute was strictly followed, and the verdict of the Jury is entered in great detail.

Not only is the price of corn given for each year, but we are enabled to see what great fluctuations of price occurred between one year and the next. The following shews the price of corn (wheat) for the three years, 18th, 19th, and 20th Ed. II., as divided into three sorts: melior, mediocris, and debilior.

	PRICE PER QUARTER,		
	18 Edw. II. 1324.	19 Edw. II. 1325.	20 Edw. II. 1326.
Melior	7s.	5s. 0d.	3s. 8d.
Mediocris	6s.	4s. 8d.	3s. 4d.
Debilior	5s.	4s. 6d.	3s. 2d.

Here we see that the price of the best wheat had fallen in one year over 28 per cent., with a further fall of 25 per cent. in the next year, or a total fall of $47\frac{1}{2}$ per cent. in two years. What would happen to this country if the price of the staff of life fluctuated now as it did then? It is curious to see the vigilance exercised over the Pistores, Braciatores, and Gannokers, and from the number of them fined for defect in weight and measure we come to see that in those simple primitive times there were rogues in grain and rogues in drink just as there are now.

The bread also seemed to be divided like the corn into 3 qualities called respectively Wastell, Simenel and de Coket.

It is quite clear that all the cereals now in cultivation, wheat, barley, oats and rye, were in cultivation then; also beans and pease, the latter being mentioned in connection with the words "del Daylkin," or Daywin, whatever those words may mean.

Articles of Apparel. Amongst these, we meet with such phrases as "unam tapetam et unam tunicam," "tunicam de albo," "supertunicam," roket, curtepy, 1 huth, 1 hosten, 1 collob. and 1 par de Stacchys!

Amongst Tools and Articles in Use, we find 1 wimble, 1 axum, 1 segl (sail), lucernæ, andirons, batella, remigium, unum vetus rete, and unam ollam æneam.

The Employments of the people may be inferred from some of the surnames, as Brewster, Carter or Chareter, Chapman, Fisher, Piscator, Peche, Hucstere, le Meyr, Rushpilere (Rush-peeler), Shepherd, le Souter, le Threshere, &c.

The Disputes amongst the people. Besides the numerous suits for very small debts, we find actions brought and damages recovered for what appear now to be very venial offences, such as breaking an "Evesbord," taking an oar out of a boat, detaining a "Horslep" (or Hordlep) selling a thousand of inferior lesch (the word always used for "Sedge"), described as "debilior quam ipsa emit ad dampnum xvij^d."; breaking a contract for the sale of 1000 eels sold for 10^s., damages claimed, 12^d.; for a trespass with oxen in the lord's barley ("in ordeo domini apud le WYNYERD cum bobus,") and another in the vicarage with geese. To shew the value of money, it is no uncommon thing to find an action brought for one shilling and fourpence halfpenny farthing, "unum solidum, quatuor denarios, obolum quadrans," which makes the magnitude of one of the sums sued for so much the more remarkable by contrast. John Tepito and Constance his wife, who was the wife of Osbert Godlob and the executrix of his will, acknowledged to owe to Thomas Thame, capellanus, xxiii^s., and iv^d. for the *balance* (de residuo) of one anniversary which had been celebrated for the soul of the said Osbert, payable at Easter. It will be noted that this comparatively large sum of 24s. 4d. is only the balance due to the said Thomas. What might have been the whole amount of the charge made for the repose of Osbert's soul nowhere appears.

The Offences committed. These are very numerous and of the most varied description. Drawing fishponds (gurgites) and taking away fish, cutting and carrying away sedge (lesch) out of the fens, cutting "lesch" out of the proper season (ante le Hokeday contra ordinationem), breaking the lesch, selling it against the proclamation, selling it out of the manor, cutting

ears of corn, taking "tres garbas avenæ domini ad equos suos," collecting ova botorum, the eggs of the bittern (or "butter bump," now vanished from the fens), and exporting them extra mariscum; taking a man's oars out of his boat; trespass of hens (glènes gallenas), and damaging 1 bus. fri (frumenti) pr. xx^d, i bus. ord. pr. xii^d, and 2 bus. fab. xx^d; placing dung in a lane so that no one could pass that way, fishing at night with nets (in alienis piscariis); killing somebody's hen; breaking the lord's fold, not cultivating the lord's land and leaving it incultam ob inopiam et caristiam, for which, under the circumstances, gersuma condonatur. Neglecting to do suit to the lord's mill, keeping and using a handmill (molendinum manuale) at home, defaming the corn of the lord, per quod alii emptores reliquerant emere; capturing a leveret (lepusculum) in garena domini; hunting a hare in the lord's field, doing damage in the lord's vineyard (vinarium); taking a man's baskets and putting them into the water, quare cepit corbellos suos et eos posuit in aquâ suâ. Selling oats and beer by false measure, spoiling corn for malting, letting a dog bite an animal of the lord; the brothers of the Hospital of St John of Jerusalem having two dogs (canes existentes) in garenâ domini unde oritur suspicio. Breach of warranty of eleven ewes (11 oves matres quas advocat esse sanas), but which expirassent cum putredine. Then we have people suspected of petty larceny, taking esticks (sticks¹) of eel, forestalling, regrating, pound-breach, non-repairing a causeway; digging clay in the King's highway, not coming to work soon enough in the morning, adeo mane sicut pares suos, ad carandum bladum domini. Not coming to cut the lord's corn, sicut facere debet; defaming the character of Mabil, the wife of Richard Manitele, unde eadem Mabilla deteriorata fuit in charactero ad dampnum of said Richard and Mabil of 40s. It appears moreover that Adam Abbot was punished for percussing Mabil le

¹ A stik of eels is 25.—*Stat. de Ponderibus et Mensuris.*

Smekere ad damp. 3^d, but he was also fined for breaking ramos fraxini in cemeterio Ecclæ in contemptu scæ ecclæ. Then John Fox himself broke open Mabel Bencosin's box which was locked, fregit cistam quod erat sub serrâ, and John Piscato stood by while it was done, and John Fox was fined 6*d*. Then we have John Montfort for committing the offence of Hamsoken (that is, invading the home of John Fox) et ipsum insult, eum cum cultello. Several women are presented for Lehrwite (fornication), but only when committed cum quodam *extraneo*. There is also the case of Wm. de Gys, presented as vagabundus de nocte et perturbator Pacis domini Regis et nescitur unde venit. John le Huxtere is also presented as vagabundus de nocte et suspectus mali penes eum. There is also Johanna, the daughter of Galfrid Whytering, presented as a leper, est leprosa. This long list does not by any means exhaust the catalogue of offences dealt with, but enough have been brought forward to shew that human nature then was pretty much the same as human nature is now. There are, however, three more small offences recorded which ought not to be passed over. One is a presentment of Richd. Manitele and Wm. de Helegye for defaming the lord's Court, by falsely and maliciously averring that no one could obtain justice in it; the second is a presentment that Wm. Tepito is fined 2*d*., quare impedit per *garulationem*, so that the capital pledges could not hear the particulars of the various presentments, and the third is that Constantia Brice, one of the tapsters, was fined for not permitting the tastatores cerevisiæ, *tastare*.

The use made of the Fens. It would appear by the allusions in these Rolls that the vegetable produce of the Fens consisted almost exclusively of sedge (lesch) which was probably a name used generically and covered all the *Canices* abounding in the fens, as well as the special sedge of Burwell

Fen (*Cladium mariscus*) to which the University of Cambridge was formerly so much indebted as a means of lighting their fires. Probably the word also covered reeds and rushes, as neither of these words occur. The word "Lesch" has now become obsolete in the Fens; but the French name for the plants of the genus *Carex* is "Laiche." The word "leyt" occurs a few times, and obviously meant a coarse sweet grass, what we still call "leed" [*Poa (glyceria) aquatica*], which was made into fodder for cattle, and which was of sufficient importance as a fen plant to receive special notice from Camden. Turf was cut in large quantities under strict regulations. There were evidently large pools of water in the fens called in the Rolls "gurgites" and "stagna," producing abundance of fish, especially eels, which were valued at 10s. to the thousand, and rent was often paid in eels. John Albin owed the Vicar of Littleport 1000 eels for tithe. There were also abundance of wild fowl, and their eggs. The small portion constituting the high land of Littleport (consisting of not more than 900 acres) was evidently well cultivated, with all the cereals and pulse still grown by farmers, and we find reference to ground game in the lord's warren, and the dogs of the Brothers of St John of Jerusalem together with a vineyard belonging to the lord.

Drainage. Very little is to be found which can throw any light on the Drainage. With crops of lesch, leyt, and rush, the people of Littleport needed none. The only reference to this subject which I have noted is where Wm. Hamond and John Spynnerel had obstructed a water course "cursum aque" at Ewerestring ad dampnum dñi Epi et nocumentum tenentum suorum, and they were fined 4*d.* to the Lord and ordered to repair and amend and cease to do further injury.

Roads. Tota villata de Lyttleport was presented for not repairing a causeway, and several individuals were also presented and fined for a like cause.

Government of the Village. There was the steward of the manor, the tasters of beer, an officer to collect the lord's rent, a collector of eels, a master of the harvesting, a person to see the bylaws were kept, an officer to buy and sell for the lord, a lord's miller over the lord's mill (unless it was let), an officer to report trespassers in marsh and warren, and there was what would now be called a fen reeve, who in the Rolls is called *Prepositus*, or *Provost*. There were views of frankpledge. If any one went out of the village he was reported, if any one came in he had to find his way into a decenna, where nine other persons would have to be responsible for him. If a tenant wanted to marry he had to obtain a *licentia maritandi* and pay to the lord a half mark for the privilege to do fealty. In addition to all these was the vicar of the parish whose name in the 20 Ed. II. was Wm. Russell.

There are also in the Rolls several allusions to tenure. Lands are called *Terræ de Wara*, and *Terræ de Bondage*, and some curious presentments appear as to the status of the new settlers called "undersetlers" in the village, and as to their rights in the fens, but to refer to these matters at large would extend this paper to too great a length.

In conclusion it is hardly necessary to say that the Rolls are in abbreviated Latin, very clearly written, the ink of good colour, and easily to be read by those whose eyes are accustomed to the character and this particular kind of research, of whom the author of this paper is not one. The only exception to the Latin is a rescript or mandate from the Bishop, written in Norman-French, dated from his manor of Somersham, and addressed to "Michel de Cantebrugg Seneshal de notre Isle d' Ely," requiring the Court Rolls to be searched on behalf of a lady, one Agnes Ange, who made claim to dower in some land at Littleport.

X. ON COINING AND THE IMPLEMENTS OF COINING.
Communicated by J. D. ROBERTSON, Esq., Trinity
College.

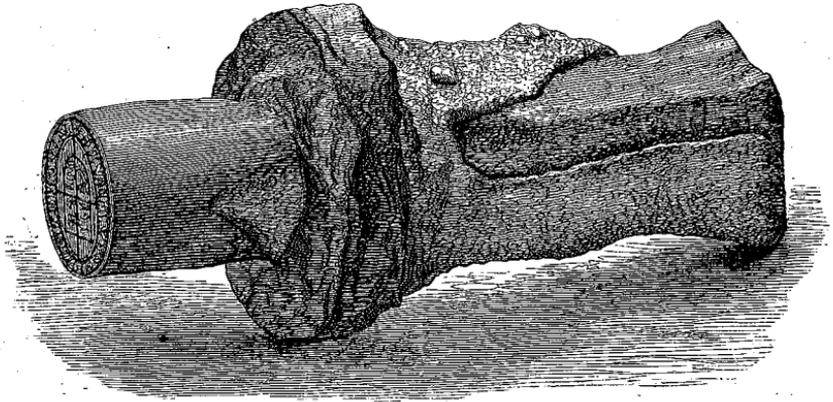
[March 18, 1878.]

THE subject of the present paper was suggested by a very interesting pair of coin-dies in the possession of the Secretary of the Society, of which Mr Lewis asked me to furnish a description, a task which I have the more willingly undertaken, as I feel that the existence of relics of so much antiquarian and numismatic interest should not remain unrecorded.

Before proceeding, however, to describe the dies in question, I think it may not be uninteresting to make some prefatory remarks on coining and coining implements in general.

Until the introduction of the screw-press in the middle of the sixteenth century—probably suggested by the invention of the printing press—the process of coining in mediæval times had undergone little or no alteration from the method employed by the ancients. This process is very simple, and may be described in a few words. The lower die, called the *pile* or *standard*, was firmly fixed in a large block of wood, similar to a butcher's block. On this die the obverse of the coin to be struck was always engraved, because being the more important from its bearing the prince's title, and usually his portrait, it was essential that it should be perfectly steady in

the striking. Upon this die was then placed the *flan*¹, or blank piece of metal, which was to receive the impression, previously



cut to the proper weight, thickness and size, and carefully made smooth and bright by a process called *blenching*. This was effected by "heating the flans, shaking them in a copper sieve, and afterwards throwing them into boiling water mixed with common salt and the ashes of the burnt lees of wine, in which they were boiled till quite bright, and then again thrown on the copper sieve and dried with rubbers²." The moneyer, holding in his left hand the upper die, or *trussell* (derived from the Ital. *torso*, *torsolo*), on which the reverse of the coin was engraved, then applied it to the flan, and gave it several good blows with a hammer, which he held in his right.

The antiquity of these implements for coining money is demonstrated by their appearing as mint marks on some denarii of the family Roscia³. It has been generally supposed

¹ The word "flan," which in old French is spelt *flaon*, is derived from *flatum*. The verb *flare* is regularly employed for casting metal in a mould, and the blanks were prepared in this way in Roman times. The mint-masters were officially designated III VIRI. A. A. F. F., i. e. Triumviri auro, argento, æri, *flando*, feriundo.

² Cochran-Patrick, *Records of the Coinage of Scotland*, Vol. I. p. xlix.

³ Figured in Morellius' *Thesaurus*, Vol. I., sub ROSCIA, Nos. 19 and 20.

that they are also represented on a coin of T. Carisius, but such is not in reality the case. I have been favoured with some very interesting remarks on this subject, by Mr C. W. King, Senior Fellow of Trinity College, which while bearing upon the matter in hand, are further valuable as correcting a popular mistake, and I cannot therefore do better than quote them here at length.

THE "MONETA" OF T. CARISIUS.

The science of Numismatics, like all others, has its "vulgar errors," the origin of which goes too far back to be traced, and which are accepted by successive generations of collectors without distrust or examination. Of these errors one of the most implicitly believed, and at the same time the most unfounded, is that the coiner's tools, "instruments de monnayage," used in the Roman mint, are exhibited upon a coin of T. Carisius, one of Augustus' mint-masters. These objects are clearly defined upon the coin; they are a hammer, tongs, anvil, and hemispherical cap wreathed with myrtle. The two last, according to the received explanation, are the dies of the obverse and reverse; the tongs served for placing the *heated* "blank" between the dies¹, and the hammer for striking them together.



It is strange that no one should have observed that one of the objects in the centre is unmistakably an anvil, and being so, the hemisphere placed upon it must from its relative pro-

¹ This is a gratuitous theory to explain the presence of the tongs. Its author never reflected that a few applications of red-hot blanks would speedily destroy the fusible bronze of which the dies were composed.

portion be much too large for any coin-die, its magnitude being further put out of doubt by the myrtle branch wreathed about it—to say nothing of its form, so unsuited for the purpose of a die. But the hallucination appears to have arisen from the too exclusive attention paid to the type of the obverse, which, by its representing Juno “Moneta,” made the first writers on medals jump to the conclusion that the reverse must needs represent the implements dedicated to her service. But if a more careful attention had been paid to the actual forms of the objects making up the reverse, it would have become apparent that they are the attributes of Vulcan, or perhaps of his sons, the Cabiri, considering the high veneration in which the Samothracian Mysteries were held in republican Rome. His proper distinction, the conical cap wreathed with myrtle (to imply that grace, equally with force, belong to the great artificer), is a sufficient declaration of the meaning of the group, added as it is to the hammer, tongs, and anvil. Of the correctness of this explanation any one may satisfy himself by a single glance at the very common denarius minted by L. Aurelius Cotta. The obverse shews the head of Vulcan in the self-same conical cap, and with the same great blacksmith’s tongs upon his shoulder. And still more to the purpose is a copper piece of the same mint-master, with heads of the Cabiri, his patron-gods, on each side; the one bearded, similarly capped, carries the same large tongs upon his shoulder; his brother, without a beard, has a star above his cap.

If anything more were necessary for proving the absurdity of discovering a pair of dies in Vulcan’s cap and anvil, it can be furnished by a most decisive argument. Amongst the immense variety of implements, figured for mint-marks on the denarii of the family Roscia, may be found the actual tools employed in striking the piece. These are the *die*, slightly conical, on the one side; and the *hammer* with heavy head and wide-spread “feather,” on the other. It is a curious fact that Louis

le Debonair—a prince who in many other ways has left tokens of his knowledge and love of art, amidst the dense barbarism of his times—has taken the hint from the Augustan moneyer, and made a tasteful reverse to a denier out of a pair of dies, and two hammers; an elegant design, but rudely executed by the artless engraver. The legend METALLVM shews it to belong to the mint of Melle, a town of much importance under the Carlovingian kings.



It will thus be seen that the engraver of the Carlovingian die was acquainted with much the same description of coining-iron as the Roman die-sinker,—that the representation of the tools used by the Roman coiner was perfectly intelligible to the moneyer of Louis le Debonair. It is at least evident that the form of these implements had undergone but little change. This conical shape of die seems to have been not uncommon in early times. In the *Revue Archéologique* for May, 1867, four Gaulish dies are described, two of which are stated to be conical. Both of these are very small, measuring each about $1\frac{1}{4}$ in. in height. One of them was for a denier of Togirix. Of the other two, one was of the shape of a mushroom, with a concave face and the edge turned over. The fourth is of different construction, consisting of a disc of iron, about $1\frac{3}{4}$ in. in diameter, into which the actual die, of bronze, is fitted. This seems closely to resemble the pile of a pair of dies for a denarius of the Gens Cornelia, which are in the British Museum. In this case too the obverse die is imbedded in a cylinder of iron $3\frac{3}{4}$ in. in diameter. Round the top of the cylinder, and made out of the same piece of iron, runs a collar ($\frac{11}{16}$ in. in height, and about $\frac{1}{2}$ in. thick,) for two-thirds of the circumference, the open space being left to facilitate the insertion and removal of the flan. The reverse die is fixed into

a trussell, 9 in. in length, the end of which is constructed to fit exactly into the collar of the pile, the handle being finished off into an octangular form for convenience of grasping it. This simple but ingenious contrivance enabled the coiner without further trouble to ensure the two dies exactly coinciding, while at the same time the trussell was prevented from jumping aside after receiving a blow, thus obviating all danger of the coin being double-struck. In later times under William the Conqueror, a moveable collar was adopted, according to Mr Hawkins, for the same purpose, the result being that the coins "are uniformly round, of the same size, and a pile of them is as perfectly cylindrical as one composed of coins of the present day¹." If we come to later times, there are a set of dies, 187 in number, extending over a period from Edward III. to Henry VII., which were discovered a good many years ago in one of the vaults of the Record Office. They were in the usual proportion of very nearly two trussells to one pile, the former die having the chief part of the work; some, in fact, were split from the force of the blows. These dies have been described by Mr Field in Akerman's *Numismatic Chronicle* (Vol. VII. p. 20) accompanied by a good plate. The piles usually differ from that belonging to Mr Lewis, in their terminating in a spike, or tang, for the purpose of fixing them into the block of wood. Besides these I do not know of any mediæval dies of this country except a trussell for a single long-cross sterling of Alexander III. of Scotland, figured by Mr Cochran-Patrick in his *Records of the Coinage of Scotland*. It is $3\frac{3}{4}$ in. long, nearly cylindrical, but somewhat smaller towards the die.

Some piles were made tapering off into a wedge, instead of having a tang, to fix them into the block, and from this peculiar shape the officers, who had charge of them, doubtless derived

¹ This supposition is, however, no doubt erroneous. The uniform roundness of the coins would not depend upon a collar, but it points to the use of some early form of flan-cutter.

their name of "Custodes Cuneorum." The office of these "Clerks of the Irons" was one of great responsibility. It was their duty to receive every evening all the dies which had been delivered to the coiners in the morning, and to place them securely under lock and key. So strict were these regulations, that under James V. of Scotland, in 1519, the keys having been lost, an order of the Lords of the Council was given authorising the Treasurer to have the locks taken off, in order to deliver the irons to the Earl of Arran, who had obtained a commission to coin; but this was only to be done in the presence of the Privy Seal, Lord Erskine, and the Captain of Edinburgh Castle, although the Treasurer was himself to be responsible for the safe keeping of the irons all the while they were in use by the Earl of Arran¹. Equal precautions were taken when the dies were worn out, or a new coinage was to be introduced, to prevent the abduction of any of the dies or puncheons. In 1451 we find it ordered "that the prouision be maid for the grauouris of yrnis, and now incontinent (*forthwith*) traist sworne men pas furth and resaif al the yrnis of the kingis strikaris bath of gold and siluir togidder with the letteris of grauing fra the grauouris; and befor the king and his consal thai be distroyit. Ande the new yrnis that sal be maide sal be graiuin within the cunye place²." In the English Mint faulty dies were to be delivered to the Clerk of the Irons, and to be defaced in presence of the Warden, Master and Comptroller, and not otherwise. Many other instances could be quoted to shew how great was the care taken to prevent forgery, but the foregoing will be sufficient to account for the rarity of implements, which were in such common use.

I now proceed to explain the manner in which the dies themselves were prepared. This process has been fully described by Benvenuto Cellini in his *Oreficeria* (chap. vii.), writ-

¹ Cochran-Patrick, *Records of the Coinage of Scotland*, Vol. I. p. 62.

² Cochran-Patrick, *Records, etc.*, Vol. I. p. 20 (c. 13).

ten only a few years later than the date of the dies before us, and from it my remarks on this portion of the subject are in the main taken. Cellini lived from 1500 to 1571.

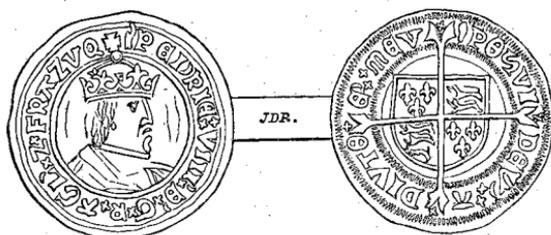
The first thing requisite for engraving a die, was to prepare a set of small *puncheons* or *matrices* (the "letteris of grauing" of the proclamation cited above), on which all the separate parts of the coin required were engraved. The head of the prince was usually made in two parts, groups of figures or other objects being distributed over as many matrices as the die-sinker deemed necessary. The letters of the legend, the mint-marks, ornamentations, bordering, and all other minor details were engraved separately, each on its own puncheon. The puncheons were made of the finest steel and were prepared for engraving in the following manner. After being filed to the right shape the head was covered with a thick coat of a luting, made out of a mixture of clay, pounded glass, soot, bole armenian earth, and a little horse-dung, reduced to the consistency of dough with human urine, and it was then placed into a fire, hot enough to anneal it perfectly, and was there left by itself to cool, care however being taken to ensure the fire keeping up its temperature all through "a whole winter's night." When removed from the fire, the head was rubbed perfectly smooth on a stone, and was then ready to receive the engraving. The pile and trussell were made of the best iron, with heads of pure steel, about a finger's-breadth in thickness, fastened upon them, of the size of the coin required. These heads were prepared for engraving by exactly the same process as that just described for the puncheons, and this being done, the positions which the portrait, letters, bordering, etc., were to occupy were carefully marked out upon it with a pair of compasses. The "iron" was then firmly fixed into a very heavy block of lead, and was ready to receive the impressions of the different matrices. First the more important portions—the portrait, figures or arms—would be put together; then the

letters, bordering, counter-marks, and small details would be inserted till all was complete. The weight of the hammer used for striking these impressions was in proportion to the size of each puncheon; the larger ones, used for the portrait and the like, requiring a hammer of about three pounds weight. This operation was one which needed much practice and skill, for the greatest care had to be taken to lift up the puncheon from the die directly the blow was administered, for its rebounding ever so little would leave a mark on the die, and consequently blemish the work. When the engraving was completed, the die was filed all round the edge right up to the bordering, at the same time being bevelled off considerably, to prevent the edge turning up and the die becoming spoilt. It had now to be tempered, and in doing so, care had to be taken to subject it to no more heat than was just sufficient to temper it, while it was especially important that it should throw off a *fine* scale, for otherwise the work would be spoilt. This done, some of this fine iron-scale, unmixed with any other substance, was put upon a board, and the die was well rubbed upon it, to give it a polish, in order that the coin might leave the die perfectly smooth and bright, the uneven parts and hollows being treated with the same substance, thoroughly worked into them with a piece of cork. With this last finish the dies were ready to hand over to the coiner. Cellini mentions, as a proof of the expedition with which dies could be prepared by this mode of procedure, that he was able to stamp *thirty* dies, that is, piles and trussells, in one day, whereas, if he had prepared each die separately with graving tools—stiplers, gravers, chisels—he could not have finished two in the same time.

I now come to the description of the dies before us. The pile is 3 in. long, the trussell $4\frac{1}{2}$ in.¹ In each case the steel head is fixed into a circle of iron, about $2\frac{1}{4}$ in. in diameter, and

¹ The trussell is figured on p. 110, drawn to scale, about seven-ninths of the original size.

$\frac{3}{4}$ in. thick. On the other side of this circle, the iron does not taper off, but, like the die-head, starts abruptly from it. This strange construction in the case of the trussell was perhaps merely intended to afford a rest to the hand; but its application to the pile appears unnecessary, unless its object be to support a moveable collar round the die-heads, which, if made sufficiently strong, would firmly hold the two dies in position almost independently of manual force. The length of the heads of both pile and trussell, which are $\frac{7}{8}$ in. and $1\frac{1}{4}$ in. long respectively (a length which would hardly be required, unless for some such purpose as this), seems to bear out this view, which is further corroborated by the same cylindrical form of both heads. This shape none of the other dies I have enumerated seem to possess, but it could be accounted for by this supposition.



Drawing of the Dies from sealing-wax impressions.

The coin to be struck with these dies, was a groat of Henry VIII.'s second coinage, the last coinage which was struck in silver of the old standard, till restored again by Elizabeth. The obverse die or pile bears the king's head and bust to his left, crowned, and reads:

PÆDRICꝰ VIIIꝰ Rꝰ X VIꝰ X Rꝰ X REX ANGLIE X FRꝰZVQ.

On the trussell are the Royal Arms in a shield divided into quarters by a cross fourchée, which extends to the edge and has a small cross in each fork. In the second quarter of the shield there are only two lions passant guardant. It has the usual legend:

ROZVI DEVS X RDIVTOEꝰ X MÆV.

I cannot be certain what the mint mark is, but it seems to be one unknown in this coinage, and not to be the same on both sides.

The workmanship of the pile is exceedingly rude. The portrait is barbarous and in very low relief¹; the crown, the lettering, and the king's dress are clumsy and coarse; the inner circle instead of being neatly engrailed is composed merely of a thick line; finally, the legend, as will have been seen above, is most remarkably blundered. It forms in fact a contrast in every respect to the extremely neat execution and excellent portrait of the actual pieces of this issue, and would almost have been a disgrace to Henry in the worst days of his debasement of the coinage.

The trussell is of much better execution, and is evidently the work of quite another hand. The lettering and engrailing are very fairly engraved, and the legend has nothing in it to object to, except that the S in *Posui* is placed on its side. The Arms are not as neat as we usually find them on actual coins, but their most remarkable feature is the omission of one of the lions of the English arms in the second quarter. From the general appearance of the work and also from its size, I should be inclined to think that this die was intended for the reverse of Henry's first groat. It will be remembered that, according to Cellini, the die was to be made to the size of the coin required, and was to be filed away right up to the bordering. This latter injunction has been pretty carefully followed by the sinker of this trussell, and if he has also intended to observe the former, he has certainly made a die for striking larger coins than those of Henry's second coinage which have come down to us, but which would be quite suitable for producing the reverse of his first groat. On the other hand the thin thread-like circle round the shield, and the small crosses in the forks of the cross are a common characteristic of the second coinage.

¹ This is not very accurately indicated in the wood-cut.

In view of these discrepancies in style between the two dies, the question naturally arises whether they were intended to be used as a pair. For three reasons I think they were: first, because they are as nearly as possible of the same circumference; second, because they agree with one another in make and general appearance; third, because it is evident from the peculiar coat of gravel and shell with which each is encrusted that both have been lying in some river whose bed has been the means of *saving* them from corrosion. This strange property is, I believe, possessed by the bed of the Thames, and this would so far confirm the belief that they were found in the river at Gravesend. The first reason is however the one which to my mind carries most conviction with it. It will be observed that the pile, so far from being filed to the size of the required coin, has a large and useless margin all round. This is just what one would expect to find, if the dies were to be used as a pair, because the trussell being, as I have said, larger than is necessary for the coin indicated by the pile, the two could only be made to match, and the smallness of the latter be compensated for, by leaving such a margin as actually exists. I do not by this mean that I think the dies were sunk in the first instance as a pair to one another; the very incongruities of execution, style and size, which I have endeavoured to point out, would lead one to reject such a notion, but it appears to me very possible that the pile may have been made by some unskilled workman, to suit the trussell already in his possession. The whole of this question is however intimately connected with the most important consideration with respect to these dies, viz. whether they were genuine implements of the Mint, or whether they must be regarded as the tools of a forger.

In describing them I tried to call attention, more particularly in the case of the pile, to the great dissimilarity they show to the groat they are intended to represent, at least to every

specimen of that very common coin, which has come under my notice. If, again, we can fairly conclude that they were used as a pair, this consideration would by itself be sufficient to preclude the supposition of their ever having been employed in a mint so well conducted as was the Tower Mint at this time. I can give no reason of any sort for supposing this pile to have been anything but a forger's tool, though I have hinted at the bare possibility of the trussell having found its way by some dishonest means from the Mint into a false coiner's workshop, there to have a fellow adapted to it. This is however extremely unlikely when we consider how stringent were the regulations employed to secure the safety of the perfect dies, and to ensure the destruction of imperfect ones, such as this is.

On the whole, it seems probable that this trussell may have formed part of the stock-in-trade of a gang of forgers, obtained possibly from some more skilled member of the confraternity than they could count among their ranks, a prize too great to be discarded, and yet one to which they were unable to do justice, in preparing a pile to match it.

It is a matter of notoriety that forgery was very rife under this king and his successors, as the proclamations on the subject show; the debasement of the coinage which began in 1543, offering to false coiners an opportunity of carrying on their trade with less chance of detection, which they were not likely to throw away. It may at first sight seem unreasonable to affirm that a debased coinage would be a stimulus to forgery, but this seemingly paradoxical assertion is, as Mr John Evans has pointed out¹, easily explained when we consider how difficult it is to distinguish between different degrees of baseness, while a still further safeguard against detection is afforded by the legal tender itself being necessarily more or less rude and ill-struck, owing to the natural hardness of the base metal to be coined.

¹ *Numis. Chron.* 1864.

I cannot pretend to say whether these dies, imitating a fine silver coinage, were intended to produce false money while that coinage was in circulation, or whether they were employed during the subsequent debasement on the supposition that people would eagerly accept what they imagined to belong to the memory of better days. However this may be, it seems very probable that these dies were of foreign origin. Early in Edward VI.'s reign a proclamation was issued against forgery, particular notice being taken of the quantities of false coin imported from beyond the seas. That Paris was one of the places which contributed to this trade is sufficiently proved by the discovery some 20 years ago of a pair of dies for a groat of Henry VIII. in the Seine.

This fact is mentioned by Mr Evans in a paper contributed to the "Numismatic Chronicle" in 1864. He does not mention what groat they were intended for, but this perhaps may afford a clue to the real history of the dies under discussion. He goes on however to describe a forged groat of one of the debased coinages, with the falling collar, which only differed from the genuine piece in reading FERNANDVS in place of HENRIC: VIII., and in having the lions passant in the wrong direction. It appeared to be of yellow brass, slightly silvered over. Mr Evans remarks on the cleverness of using FERNANDVS, the letters of which generally resemble HENRICVS. For my own part I fail to see any resemblance in it either to HENRIC (or HENRIC) VIII., for I am not aware that his name ever appears uncontracted. Three other groats and a half-groat of the same sort were found with it, and a false groat of the same type was found at Fulbourn, I believe, some years ago, proving that they had found their way as far as Cambridge-shire. Much more ingenious is the name PÆDRIC, used on the pile before us, which in the first letter alone materially differs from HENRIC. The D (if D it be) is artfully composed of an I and a semicircle, which might almost as easily be

taken for an R, while the final & has only the cross-stroke to distinguish it from C. The remainder of the legend has nothing peculiar about it, except the extraordinary blunder of FRVZVQ instead of FRVRQ& in the king's style. This I can only account for by supposing that the French forger—and this I think helps to bear out the foreign origin of the dies—was too patriotic to acknowledge himself, even on a false coin, the subject of his national foe, and that rather than consent to such dishonour he has placed an unintelligible word upon his coining-iron, in place of one of the usual designations of "la belle France." A similar display of national feeling occurs on another Anglo-French forgery, which Mr King has mentioned in a paper on the Mill and its relations to false coining, with which I conclude the present notice.

INVENTION OF THE COINING-PRESS.

The coining-press, in French *moulin* (whence our term "milled" money, as opposed to "hammered"), was invented by a carpenter, one Aubry Olivier. He was employed to use his new machine in the mint of Henri II., from the year 1553, and the excellence of that king's coinage, the "Henricus aureus," holding the same place in the French series as the crown of Cromwell does in our own, bears ample testimony to the great superiority of the new method. But under the impoverished régime of Henri III., the use of the moulin for current coin was abandoned, as too expensive, and was restricted to the making of medals and jettons.

It is clear that this moulin of Aubry Olivier's was the complete coining-press, with horizontal lever heavily loaded at each end to give the screw impetus in its descent (hence also called *balancier*)—for Cellini, in his chapter on the striking of medals, talks of a press (*la vite*) as in common use in the

Roman mint early in the same century, and extols its advantages over the old method, declaring that by its means with a couple of turns of the screw he could produce the same work as with a hundred blows of the hammer. This *vite*, however, was a very simple machine, worked by a long arm attached to the screw which required the united force of four men to put it in action; the power of the lever not being assisted by the application of the centrifugal force, where lies the great advantage of the completed *balancier*.

Cellini's description of the *vite* of his days, somewhat hard to understand in his colloquial Tuscan, is much elucidated by the discovery of one of these primitive machines at Bourg-le-roi near Alençon (January 15, 1847)¹. It is nothing more than a stout iron case (*étau*), 10 inches in height, and slightly conical, having a long tang at the base for the purpose of fixing it steadily in a block of wood driven deeply into the ground. A *slot*, two inches square, is cut through the middle of this case, to receive the dies, which likewise were made square, and fitted edgewise into a band, or collar of iron, so as to prevent their slipping the one over the other. A male screw, $1\frac{3}{8}$ in. thick, of iron worked through a female screw of copper traversing the axis of the whole, and was turned by means of a long spanner, fitting on to its top. The other end was thus brought to bear with great power upon the dies, placed evenly within the above-mentioned slot.

The machine in question had evidently been employed by a forger for the purposes of his nefarious trade, for it was discovered a metre below the surface, carefully concealed in some old foundations of a building, along with the other instruments serving for its use.

Enclosed in a leaden box were seven pairs of square dies, to be used in the *moulin*; each pair yet fixed in its collar.

¹ Described in a copious and most instructive memoir, by L. de la Sicotère, in the *Revue Numismatique* for 1847, p. 281.

They were for the half-imperial of Charles V., the rose-noble of Edward IV., the écu-au-soleil of François I., and two different testoons of the same king; the others were illegible from rust; also nine piles and eight trussells, much worn by the hammer, and in greatly more damaged condition. No more than two could be made out, one for the angel of our Henry VII., and another for a testoon of François I. The writer of the memoir notices that in the square dies the lettering and engraving (*grenetis*) had been put in with punches, but the portraits were executed with the graver. The dies were of very fine, hard-tempered steel. All the necessary tools accompanied the deposit, such as three hammers of different weights, a small cold-chisel, pair of compasses, small shears, two moulds in iron for casting the blanks, and a few lumps of lead.

This discovery attests the truth of the argument so strongly urged by the old conservatives of the 17th century, against the adoption of the press in the French mint, viz. that its general use would certainly become a great temptation to false coining, by reason of the *secrecy* with which it could be worked, making no noise at all—whereas the old method betrayed its operations to the neighbourhood by the clatter of hammer and dies.

The articles found thus carefully stowed away must have been the stock-in-trade of a forger on a grand scale, for the foregoing list shews they were intended for the imitation not merely of the coin of the realm, but for the European pieces then circulating in France. In the case of our Angel, it is amusing to observe how the national vanity of the engraver had so far got the better of his discretion, that he gave "France" the precedence of "England" in the king's style. Traces of gold leaf still adhering to the surfaces of these dies, proved that the material they were employed upon were blanks of pewter or lead thickly gilt.

The forgery of money was an art long cultivated, and brought

to high perfection by the ingenious Gauls; "solertissimum id genus hominum," as Cæsar calls them. Charles IX., a king who like our Charles II. "would have done better at any other trade than his own," and a first-rate worker in metal, greatly prided himself on the perfection with which he produced his own *écus* in base metal, and boasted that he was the best false-coiner in all his kingdom. The unlucky Philippe Mestrelle, who "intulit artes agresti Latio"—having been called over by Elizabeth to improve her coinage, and to whose skill is due the elegant *milled* money of that reign—was unable to resist the temptation of so fine a field for the exercise of his ingenuity at the expense of "perfidè Albion," and consequently finished his career at Tyburn in the year 1569. In the following century, Tavernier, in his description of Constantinople and the trade with Turkey, mentions it as a regular practice with the French merchants to import vast quantities of imitations of Turkish currency in very debased silver. This fraud had been carried to such a height as to provoke at last the long-suffering Ottoman government to make an example, which they did with truly Oriental wit. A large consignment of such debased coin, addressed to a notorious offender in this line, was seized in the port and conveyed to the mint. There it was melted down, and the silver it contained separated from the "intolerable deal" of alloy. The consignee was then sent for, was shewn the little ingot of silver, and the huge mass of brass, and told he might now take away his property without further question.

The dies, the subject of the present discussion, are an early proof of the existence of such a *fabrique pour l'étranger* at Paris, about the time when Olivier's *moulin* was first introduced into the operations of the mint. Very crafty forethought lay at the bottom of the intentional blundering of Henry's name and titles; the general appearance of the coin sufficed to impose upon the illiterate public, and at the same time

the passer ("smasher" in modern parlance) might hope to escape punishment, if detected, upon the plea that he had not forged the *current coin* of the realm. A similar evasion gave birth to the numerous "duffer" halfpence of the last, and early part of the present century, with the legend GLORIOUS PELLEW, and similar names, imitating to the casual glance the style of the Georges; but which could be put into circulation without danger to the knowing ones, as it could, if necessary, be proved that these pieces were in their nature only tokens.

The following wood-cut is copied from one in the first edition (1577) of Holinshed's Chronicles, and is here subjoined as giving a good illustration of the process of coining in mediaeval times.



1870

1871

1872

1873

1874

1875

1876

1877

1878

1879

1880

1881

1882

1883

1884

1885

1886

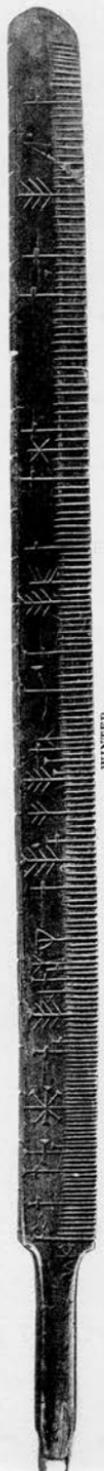
1887

1888

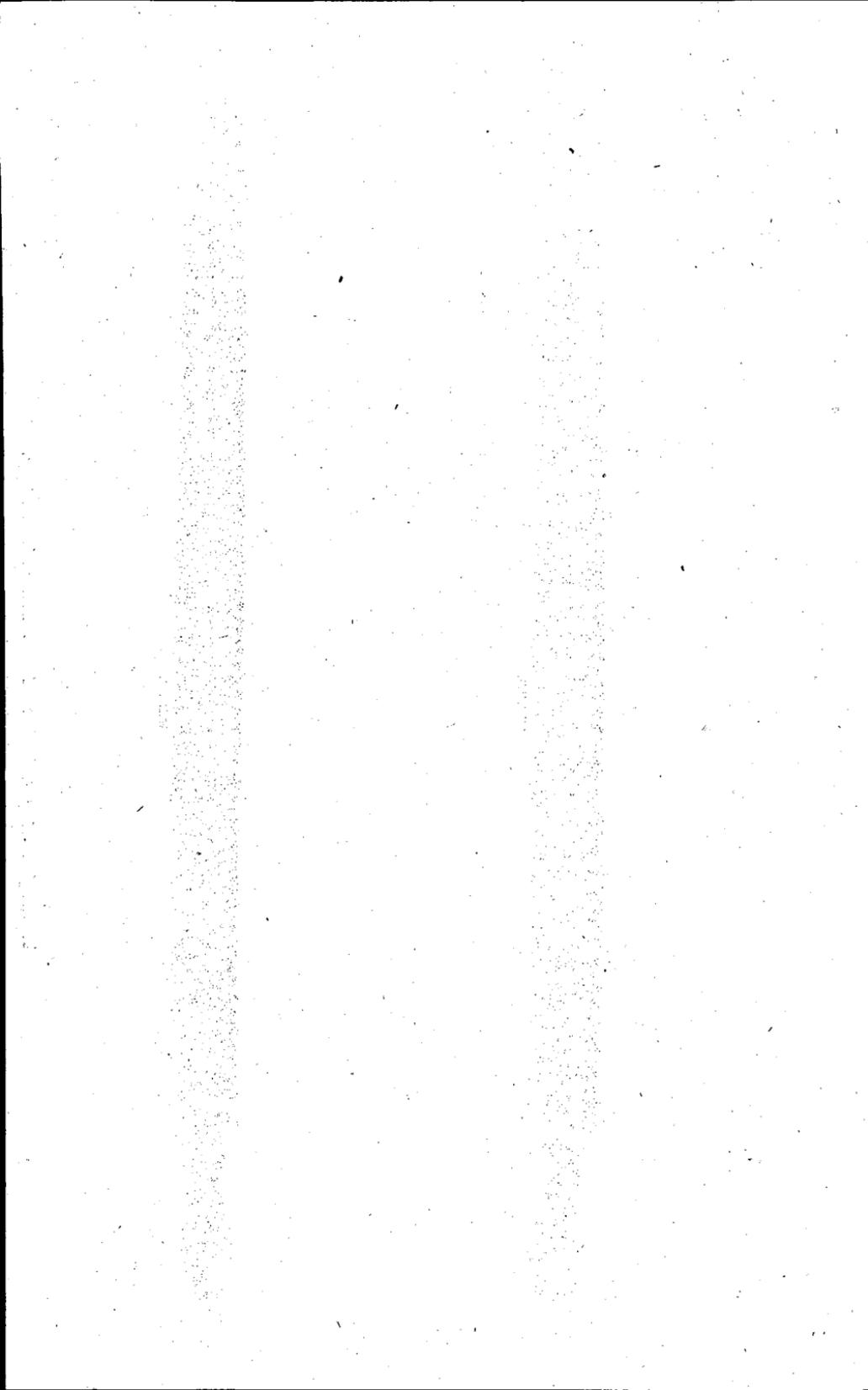
1889



SUMMER.



WINTER.



XI. DESCRIPTION OF A NORWEGIAN CALENDAR. Communicated by EIRÍKR MAGNÚSSON, Esq., M.A., Trinity College.

[May 13, 1878.]

THE old-time almanac, to the contents of which I am going to call attention, was brought to this country from Norway about half a century ago (either in 1826 or 1829) by the Rev. Richard Carter Smith, M.A. His daughter, Mrs Atkinson of Clare College Lodge, was kind enough, some time ago, to inform me of the existence of the document, which had been carefully preserved in the family, and to persuade her brother, Richard G. Smith, Esq., the present owner of it, to allow me to examine it, and to exhibit it to the Society on the present occasion.

In shape this calendar represents the familiar type of the so-called clog-almanacs of England, more specially called "*the Staffordshire cloggs*." This term for calendars, scored on solid objects of portable nature, has been generally adopted in England ever since that learned keeper of the Ashmolean Museum at Oxford, and Professor of Chymistry in the University, *Dr R. Plot*, wrote his researchful *Natural History of Staffordshire*. So far as I have been able to trace, he is the earliest authority for the use of this term, as applied to these calendars. He introduces the subject of these Staffordshire antiquities in the following words:

Canutus took possession of the whole kingdom, and raigned sole King of England for 20 years: during which time, and the raignes of his two successors also Danish Kings of England, many of their Customs and Utensills, no doubt on't, obtain'd

here, amongst which I guess I may reckon an ancient sort of Almanacks they call Cloggs, made upon square sticks, still in use here amongst the meaner sort of people, which I cannot but think must be some remains of the Danish government, finding the same with little difference to have been used also formerly, both in Sweden and Denmarke, as plainly appears from Olaus Magnus and Olaus Wormius.

After this statement, to which I shall return presently, the Doctor proceeds :

They are here called Cloggs, for what reason I could not learn, nor indeed imagin, unless from the English Logg (a term we usually give to any piece of wood), or from the likeness of some of the greater sorts of them to the Cloggs, wherewith we usually restrain the wild, extravagant, mischievous motions of some of our doggs.

If these *cloggs* were really a species of almanac adopted by the English from the Danes, as Dr Plot maintains, and all English writers who have dealt with the subject since his day, it must be assumed as *natural* that with the Danish thing, its Danish name should also have been adopted, and as *certain*, that with it its Danish type must have been preserved, in all its essential characteristics at least, at the same time.

But, as to the name, it is a matter beyond any question, that at the time, when the supposed adoption of these Danish time-markers took place, that is to say, in the 11th century, the Old-Norse language knew no such word as *clogg* for calendars scored on wood, or on any other object of a solid, portable nature, or for such pieces of wood, or of other material, as were specially used for carving runes on. The standing term for logs or pieces of wood, or of other material on which runes were cut, was *kefli*, a word which cannot possibly be supposed to have corrupted in Saxon mouths into *clogg*. On the other hand, *clog* seems to be a word well known in English dialects for a *piece of*

booter of the 11th century the calendric teacher of the Englishman of the time.

It is only repeating an historical truism, to say that, where a custom has longest prevailed and struck deepest root among the masses as an unavoidably necessary item of their civilisation, there the longest time and the most radical measures are required for the complete eradication of the same. Now, we know that the Danish element was longest established in the North of England and, as a matter of course, we should expect an important item of Dano-Christian civilisation, which even up to the end of the 17th century was understood, and turned to practical purposes by the "meaner sort" of people in non-Danish Staffordshire, to have been known in some way to the people in the old Danish kingdom of Northumberland. Such, however, is not the case. There is only scanty evidence of probability to show, that the clog-calendar was used in the North of England. The absence of a positive evidence on that head need, however, amount to no more than an accident; nor does it warrant any conclusion to the effect that clog-almanacs were never known there; but what it warrants, is a conclusion to the effect that this supposed purely Danish institution took deeper root among, and got firmer hold of, strangers than of its own inventors and cultivators; and that, in the nature of the matter, is a most unusual thing ever to happen.

Taking a comparative survey of Northern clog-almanacs, we find that, by the type of their Sunday letters, they fall into two distinct groups: the clog *with* runes, to signify the Sunday letters, and the golden number, a type which obtains through Denmark and Sweden; and the clog *without* runes, which obtains throughout Norway. This clog may be said, broadly speaking, to be identical in type with the Staffordshire clog. Its Sunday letters are either straight lines, scored on the planes, or else scores in the edges, where two planes meet. Its mark-day emblems bear a singular resemblance in many cases

to the same emblems on the Staffordshire clog, and occur, as far as my observation as yet goes, never on Danish or Swedish staves. From the missionary history of the North, we know that, while Denmark and Sweden received Christianity chiefly through German agency, Norway was redeemed from paganism principally by English enterprise. At that time the vernacular alphabet of the whole of Scandinavia was the runic. It was only a natural adaptation of a foreign to a vernacular time-marking contrivance, that the first seven letters of the Roman alphabet, which did service in the Roman Calendar as Sunday letters, should be replaced, for the same purpose, by the first seven letters of the current Scandinavian alphabet, these letters being **VNDPRY***. We are not at liberty, I think, to presume, that this natural mode of adaptation which obtained in Sweden and Denmark should have been discarded without a cause in Norway. And still less are we at liberty to assume it as the result of a pure accident, that the type actually adopted by the Norwegians, should agree entirely with that which in the 17th century turns out to be popularly current in Staffordshire.

Further, it should not be forgotten, that the Christian dominical letter-system had been known and used for calendric purposes throughout England for centuries before the Norwegian had any notion of it as a time-marking contrivance. To suppose that the semi-barbarous Norwegian, during the very time that he was struggling for the maintenance of his dear paganism against the "odious" creed of "White-Christ," took care to popularize the fundamental law of the Christian Church, which enjoined due observance of Saints' days, with their fasts and vigils, with a view to the utter eradication of the pagan high-day observances, is as preposterous, as it is absurd, for a moment to imagine that Englishmen, observing the Christian cultus for centuries, were incapable, all the time, of providing themselves with a popular and practical contrivance, serving as a guide to the proper observances of the ecclesiastical seasons,

so as to prevent penances being incurred from ignorance, and only awoke to the practical necessity of the invention, when red-handed rovers of the North-sea came to their rescue. Still more out of the way would it be, to suppose that, under the circumstances already alluded to, the semi-pagan *Norwegian* of the 11th century coming occasionally down on the English coasts as a furious freebooter, or visiting the country as a trader in furs, but having nothing to do with the rule of the country, should actually have enforced upon it a Christian calendar, an invention of the practical use of which he was, in all probability, blindly ignorant.

It is, thus, evident, that the Staffordshire clog cannot be of Danish origin; and there is nothing to prove, that it could be derived from a Norwegian prototype, while, in reality, everything tends to show, that the Norwegian clog must derive its origin from England. This necessarily throws the antiquity of the Staffordshire clog back by centuries. But there is nothing formidable in the thought. For it is only on the ground of its having been an ancient institution in the English Church, that the fact of its being used and understood by the common people of Staffordshire, in the 17th century, can be understood.

I have already mentioned, how all Northern calendars fall into two main groups according to the type of the dominical letters; namely, the group in which the Sunday letters are represented by a straight line or a notch, and the group in which the Sunday letters are represented in runic characters. Each group falls again into two main divisions: calendars with the golden number, and calendars without it. The calendars belonging to the former of these divisions are properly called *primstaves*, or golden number staves, from *prim* or *prime*, the popularly current term for the golden number, originally derived from *prima*, i. e. *luna*. This group was the clerks' almanac, because it supplied the key to the lunar cycle, thereby to the Paschal term, and the movable feasts throughout the year.

It was enforced by law, that a copy of this calendar should be kept at every parish church in the North. The second group, which showed no golden number, was the layman's calendar, supplying only a guide to the proper observance of the immovable feast-days with their fasts and vigils. Both groups of calendars had one main feature in common, namely this, that the feasts and Saints' days were distinguished by peculiar emblems, which either pointed to the principal event in a Saint's life, or represented some of his attributes, or else conveyed an appropriate reminder of the significance of the season of the year for domestic life, or industrial pursuits by land or by sea. To this latter class of calendars the one now under notice belongs.

Passing over to the contents of it, you will observe that the straight lines, which do the duty of dominical letters, are divided throughout into sevens by lines scored across the narrower planes of the stave. This division, I need scarcely remark, means weeks. The stave follows the heathen tradition of dividing the annual cycle into two half-years, the reason of which I have set forth already in my paper on the calendar from Lapland (*Communications*, 1877, pp. 77 ff.). One side represents the winter season, the other that of summer. The winter season begins with the 14th of October, to which is attached the emblem of a mitten, and ends on the 13th of April. But you will observe, that to the last week on this side of the calendar there are added two lines seemingly intended to signify some extra days. They have however in reality nothing to do with the days of this half-year, but are purely accidental mistakes on the part of the carver. He has namely scored the dominical letter lines first throughout the whole length of the side of the stave. When he afterwards divided them into weeks, it turned out that he had scored too many. He left, however, the oversight uncorrected, because it could never cause any confusion, every peruser of staves knowing

that the last day of the winter season must always be the 13th of April, since the first day, by which the Summer season on the other side of the stave began, must invariably be the 14th of that Month, called throughout Norway, the first day of Summer, *Förste Sommerdag*. It is thus quite evident, that these two lines have no hidden calendric signification whatever, but are purely accidental mistakes on the part of the carver, left uncorrected, because they could not be a source of any confusion. The winter season consists of 26 weeks exactly, or 182 days; the summer season of 26 weeks and one day, or 183 days altogether; consequently the year contains the regular Julian number of 365 days.

We next come to consider the relation between the dominical signs in this calendar and the dominical letters of the Roman Church calendar. In that matter this calendar presents some peculiarities which must be noticed. It should never be forgotten, although writers on clog-calendars often overlook the fact, that the foundation, on which the dominical letter system of the clogs rests, is the dominical letter system of the Roman Church calendar. Whether the clog-almanac has its dominical letters marked by seven strokes, as in the present, or by notches, as in many of the Staffordshire clogs, or by runic characters, as is the case with the Danish and the Swedish Primstaves, the foundation of it all are the seven dominical letters of the Roman catholic Church calendar, *a, b, c, d, e, f, g*. These seven letters being repeated in the same order as often as there were weeks in the year, it followed, that every day of the month had its fixed Sunday letter, and consequently that every fixed Saint's day fell in every year on the same Sunday letter. This is an important thing to remember in dealing with the calendars of the old time, when the popular way of dating events and occurrences, was to fix them by the Saint's day next before which, on which, or next after which, they took place. In order therefore to rightly understand the clog-calendar

arrangement in every case, it is necessary to read them by the guidance afforded by the standard calendar of the Church. In this respect it is important to notice, how the old laws of Scandinavia, more especially, with regard to the present case, the old laws of Norway, provided by a simple formulary for the accurate observance by the laity of all the fixed Saints' days, and church festivals throughout the year. In the 26th chapter of the Church Law of Archbishop John the younger of Drontheim, from 1280, this formula is thus given¹: From the thirteenth day of Yule are XIX nights to Paul's mass, thence are VIII nights to Candlemas, thence are two and XX nights to Matthias' mass, thence are XVI nights to Gregory's mass, XVII if there be leap year, then are XIII nights to Mary's mass, thence are two and XX nights to Magnus' mass, then are IX nights to the Rogation day, then are VII nights to the mass of the Apostles Philip and James, then are II nights to the Cross

¹ Norges gamle Love. Udgivne ved R. Keyser og P. A. Munch. vol. 2, pp. 359—60.

Fra þrettanda deghi i iolom ero .xix. netr till Pals messo. þaðan ero .viij. netr till kyndyls messo. þeðan ero tvær nætr oc .xx. till Mathie messo. þæðan ero .xvi. netr till Gregorii messo .xvij. ef laupar er. þa ero xiiij netr till Marie messo. þaðan ero .ij. netr oc .xx. till Magnus messo. þa ero .ix. netr till gagn dagsens. þa ero .vij. netr till postola messo Philippi et Jacobi þa ero .ij. netr till krossmesso. þeðan ero .xii. netr till Haluardz messo. þa ero xiii netr oc xx till Botolfs messo. þa ero .vij. netr till Jonsvoku. þa ero .v. netr till Petrs voku. þa ero .iiij. netr till Suipthuns voku. þa ero .vi. netr till Sæliu manna voku. þaðan ero xii netr till Margrettar messo. þa ero .ij. netr till Marie messo Magdalene. þa ero .iiij. netr till Jacobs messo. þa ero .iiij. netr till Olafs voku fyrru. þa ero fim netr till Olafs uoku siðare. þa ero .vij. netr till Lafrans voku. þa ero .v. netr till Marie messo. þa ero .ix. netr till Bartholomei messo. þa ero fimtan netr till Marie messo siðare. þa ero .vi. netr till krossmesso. þa ero .vij. netr till Mathei messo. þa ero .viiij. netr till Mikials messo. þa ero .ix. netr oc .xx. till tvæggia postola messo. Symonis et Jude. þa ero .iiij. netr till alra hæilagra messo. þa ero .x. netr till Martæins messo. þa ero tolf netr till Clemez messo. þa ero .vij. netr till Andres messo. þa ero .vi. netr till Nikulas messo. þa ero .xv. netr till Thomas messo. en þa ero .iiij. netr till iola dags.

mass, thence are XII nights to Hallward's mass, then there are three and xxx nights to Botolph's mass, then there are VII nights to John's wake, then there are v nights to Peter's wake, then are IIJ nights to Swithun's wake, then there are VI nights to the wake of the men of Selja, thence are XII nights to Margaret's mass, then there are IJ nights to the mass of Mary Magdalene, then there are IIJ nights to James' mass, then there are IIJ nights to the first Olaf's wake, then there are five nights to the later Olaf's wake, then are VIJ nights to Lawrence wake, then are v nights to Mary's mass, then are IX nights to Bartholomew's mass, then are fifteen nights to the later Mary's mass, then are VI nights to Cross mass, then are VIJ nights to Matthew's mass, then are VIII nights to Michael's mass, then are IX and XX nights to the mass of the two Apostles Simon and Jude, then are IIIJ nights to All hallows' mass, then are X nights to Martin's mass, then are twelve nights to Clement's mass, then are VII nights to Andrew's mass, then are VI nights to Nicolas' mass, then are XV nights to Thomas' mass, but then there are IIIJ nights to Christmas day.

This law is an important record, as showing what Saints' days had by that time become fixed festivals in the Norwegian Church. But the principal interest in it for our purpose is the prescription which it supplies to any one of the laity who cared to provide himself with a handy time-marker showing at a glance the fixed festivities of the Christian year which it behoved everyone duly to observe. This very prescription, it is easy to see, is a compromise between the Roman Church calendar, and the various terms, at which, by time-honoured popular tradition, the year began in different parts. For when the distance in time between the fixed Saints' days to be observed throughout the year was once determined, the question as to the proper date for the commencement of the year was reduced to one of secondary importance. But then,

it will be asked, how did the untutored laity come to place the Saints' festivals on their proper days of the month when, f. e. in some places the year began on the 14th of October, in others on the 23rd of November, in others again on the 23rd of December, &c. ? This followed as a matter of course when the right date of the first day of the year was known as it was always known, because the first Saints' day after the commencement of the year served as a starting point from which, by the afore-named law formula, the feasts of the Saints were disposed at their proper intervals throughout the cycle of the year. And for the purpose of ensuring absolute accuracy in this all important branch of the Church discipline the ecclesiastical law contained another fundamental provision, to which I shall now briefly call attention. In the ecclesiastical law of Archbishop John already mentioned, in the 20th chapter, it is provided, that

¹ Every priest, who hath a parish church, shall cut (i. e. issue) a cross and let it go abroad before every Sunday and feast day, as many nights (i. e. days) in advance thereof, as the people of the district agree upon.... But if he cut not according as the law ordaineth, or he mis-cut crosses, or he exercise not due

¹ L. c. pp. 355—56.

Hvær prestr skall kros skera. sa er hældr kirkiu sokn. oc fara lata firir hægum deghi huærium oc fostu deghi. sua morghum nattom firir. sem fylkis mænn værda sattr a. . . En ef han sker æigi sem mælt er. eða misker krossa. eða ræflar han ægi. þá gialde han byscupi halfann annan æri firir huærn kros er æigi for at rettu. En ef han sker kros at skilum oc kœmr han æigi i natstað rettan. þa skall han eftir fara. oc uita a huærium bænda*. stoð oc stæimfni þeim þingh. en siðan gange han aftr eða riði oc hafe með ser uatta tva. oc seghi ollum till at þær kome till þings. oc skyri sik með æiði sinum oc gialde kross uiti. a þui þingi. ef prestr vill stæmfna. En ef hin uill huarke suæria ne viti festa. þa skall prestren eða bœndr æsta liðs till at fara at honum a þingi. oc taka af honum halfu mæira. hafe bœndr halft. en prestr halfan annan œyri. En ef bœndr synia honum liðs till atfarar. þa er sa sæckr halfum œðrum œyri.

* So altered by me. The edition has the unintelligible *hande* which the context shows is a mere blunder of the MSS.

vigilance about their transmission, then shall he pay to the bishop $1\frac{1}{2}$ ounce for every cross that did not go according to regulation. But if he issue a cross in due time and it does not reach the right place at night, then shall he make an inquiry as to who of the bonder-men caused delay, and him he shall summon before a court, whereupon he shall go back or ride, having with him two witnesses, and he shall call upon all (men, *i.e.* householders) to come to the court to purge themselves by their oath, and to pay cross-fine at the court, according as the priest summoneth. But if the accused will neither swear nor handsel the fine, then shall the priest or the bondermen call people to their assistance to press him at the court and exact from him a twofold fine, &c.

This law-provision is very instructive in more than one way: It shows, how the church copied heathen customs for the purpose of enforcing due observance of its holiest rites. From time immemorial it had been customary in Norway, for the chief of a district to "cut up a war-arrow" as the phrase was, which meant, to send out a summons accompanied by an arrow cut out of wood generally, to all his liegemen, to accompany him on an expedition, whenever he wanted either to invade a neighbour's territory or to meet an invading foe, in defence of his own¹. This was a summons which it was one of the highest duties of a citizen to obey, as its meaning was no less religious than military. In copying the form of it for the requirements of the discipline of the church, a more absolute obedience was thereby ensured. In this way then the date of the due observance of every festival was correctly fixed, provided the priest was so much of a computist, that his calculations might be relied upon, which however this very law provision assumes as a rule to which exceptions were not unknown. Nor were they. Even the law itself gave faultful information on the point, and there is hardly a MS. extant of

¹ Nyere Landslov. Landværnebolc. *N. G. L.* 2. 35.

Archbishop John's canon law, which gives all the Saints' days' intervals correctly. And we shall see presently, that in this respect our calendar is not quite faultless. Before, however, I enter further on that subject, I would observe that in stating the intervals between the Saints' days, two modes of calculation were observed. Either both Saints' days which bounded the interval were counted inclusive, in imitation of the octave calculation of the Church; or only one of the Saints' days bounding the interval was counted inclusive, in that case invariably the second. Thus the Epiphany day bore throughout the North the title of *prettandi*, i.e. thirteenth day of Yule; which it is, if Christmas day and Epiphany day are both included. But by excluding the former we get in the *Twelfth night* of the English Church an illustration of the second method. It is the vacillation between these two methods of calculation which is so frequent a cause of confusion both in the MSS. of the Church laws, and in the calendars, and we shall find in the present one an illustration of this confusion also.

One further point of great importance must be noticed in connection with this part of my discourse. To guide ignorant laity to the due observance of ecclesiastical festivals was not the only purpose which the old time-markers served. They answered another, and a most important, purpose, as well: from the commencement of the Christian Era in the North (10th cent.) down to a time long after the introduction of printing *they formed the basis of historical chronology*. In the olden time the Saint's day was the point of time by which historical events were fixed, and documents were dated, when the Julian calendar was not followed, the aid of which was much more rarely resorted to in the North than that of the Saints' days' cycle. Now, it is a fact, that not only on calendar-staves are the Saints' days frequently put down on the wrong day of the month, but even the calendars prefixed to the earliest printed Breviaries betray the same vacillation to a startling degree. It cannot be main-

tained for a moment that the misdated calendar was a document to which no credence was given in matters chronological, any more than it can be insisted on, that in matters ecclesiastical it was not a trusted guide. Its existence at the present day is the best refutation of such a supposition. At present no one can say to what extent confusion in historical dates has resulted from the misdating of the Saints' days on the old Primstaves. To judge from the frequent occurrence of staves belonging to the misdated category, it is safe to say that the confusion must be enormous. Not that the date was originally wrong by any means, but that it became wrong, when deciphered on the basis of the standard calendar of the Catholic Church by later historians, ignorant of the real case of the original date. Herein lies the great interest which attaches to the study of these old time-markers, a study which cannot be delayed any longer, if the last aid for the correction of the historical chronology of the North is not to pass away into dust. It is, no doubt, a feasible, though certainly a very arduous task, to bring about, on the basis of the errors here referred to, a classification of the existing mass of runestaves. It is in my opinion quite possible to localize the classification according to dioceses, for on that principle the grouping of them must be carried out, as the errors seem certainly to go by dioceses. When this is done a firm basis will have been laid for the eventual correction of historical data in each diocese, for the period which the staves can be proved to cover. That foundation laid, an immense service will have been done to the study of Scandinavian history.

As I have said before, the calendar begins on the 14th of October, *St Calixtus' day*, dominical letter G. It may, perhaps, be asked on what grounds I come to fix on that date for the commencing day of the year. The matter is easily explained. With the Norwegians the winter was from time immemorial the season of the year, (was the half-year), which

preceded the summer (see my Lapland Calendar, page 83). Norwegian staves divide the year generally into two halves; and the one half is Norway's winter, Oct. 14—April 13; and the other half is Norway's summer, April 14—Oct. 13. The question as to the precedence of these two seasons is decided by the Concurrent. On staves where runes are employed for Sunday letters the Concurrent, or last day in the year is easily recognizable by the fact, that it has the same Sunday letter as the first day of the year. On clogs which use mere straight strokes or scores to signify their Sunday letters, the Concurrent is found represented by the single stroke which follows immediately after the 52nd heptade. In the present case this stroke falls unmistakably on the 13th of October, and that therefore is the extra, or concurrent, or, which is the same, the last day of the year, dom. lett. G. Thus it happens that the dominical letters from the 14th of October to the 31st of December coincide with the Roman calendar system. But from 1st January, inclusive, the dominical letters of this calendar stand in advance of those of the Roman Church calendar by one, for this reason that A is here not repeated on the 1st of January, because the 31st of December and the 1st of January have nothing to do with the end and the beginning of the year. From the 1st of January, therefore, to the end of the year every Saint's day falls, or should fall, where it does not actually do so from reasons which will be mentioned presently, on a wrong Sunday letter, though on the right day of the month. And to define the error more accurately, they fall on the dominical letter which follows the right one, consequently are wrong by one letter.

I now come to the feast-days of the calendar.

1. The first day of the year is the *Feast of St Calixtus*, October 14th, (dom. lett. G). As usually it is marked here with a *mitten* for emblem to signify the cold season approaching. It has also been suggested that the emblem might have sprung out of the

provincial pronunciation of the popular name given to the day throughout Norway, which was *Vet-Nætt*, winternight, meaning really the first day of winter. *Vet* being near in form to the common name for mitten which was *Vaat*, Icel. *vöttr*, it is not impossible that the emblem may be due to a confusion between *Vet* and *Vaat*. An old weather prognostic attached to this day makes the winter predict its coming in this way :

Vet-Nætt, (winter-night) you may await me ; at *Forebode*
(28 Oct.) surely I come.

*If I come not before All Saints' mass I bend down cone
and twig.*

which shows, that in the experience of the people of old, the later the winter set in the heavier was the snow-fall supposed to be, as also that it must come in full severity some day during the fortnight between the 14th of October and the 1st of November. It was also a common belief among the old Norwegians, that good weather on 'winter night' augured a good winter throughout. In the catalogue of the Saints' days in the old Church law of Archbishop John, referred to above, there is no mention of this Saint's day, consequently it must have been introduced later into the Church.

2. The 21st of October, (dom. lett. G), is marked with a cross simply. The day commemorates the martyrdom of *Ursula* and the 11,000 *virgins*, who in the middle of the 5th century, according to the legend, set out from Britain, and were slain by the Huns at Cologne. The Norwegian name given to the day is either *Ursula* or *Kölnis meyjar*, the maidens of Cologne. The emblem generally accompanying the day is a *group of women-figures* or a *ring*, which latter emblem probably betokens a warning against doing, what popular superstition forbade to be done in the words: *On that day thou shalt not do the thing that goes round*; which I presume means a caution against plying the hand-quern. This feast is not mentioned in Archbishop John's Church law of 1280.

3. The 28th of October, (dom. lett. G), is here marked with a *cross*, the main beam slightly flattened out at the top. It is the day of the *Apostles St Simon and St Jude*. This is the first Saint's day mentioned in Archbishop John's Church law during the winter half-year. The emblems that are generally met with for this day in Norwegian calendars are a *triple cross*, or a *sledge*, indicative of snow making that engine of conveyance practicable. Sometimes the general attributes of the apostles are met with as emblems of the day, namely, a *spear*, a *sword*, and a *saw*. On this day it was customary, in former times, for newly married people of scanty means to go about the countryside among friends and relatives, and beg for things necessary for their household use, principally victuals. These couples were called *Buste-Mand* and *Buste-Kone*. But what the etymology of *Buste* may be I cannot say. A popular name given to this day was *Fyrirboð*, Foreboding, or the day that boded the hard winter approaching in all earnest. Currently it was otherwise called *Simo messa* or *Tveggjapostula messa*.

4. By the rule of Archbishop John's law there should be between the last-named feast and *All Saints' Day*, the 1st of Nov., (dom. lett. D), four days, which agrees with the calendar, if the Saint's day, from which the calculation runs, is counted exclusive, as is the rule of that law throughout. The emblem is a *large cross*, the square beam ends and the top being markedly flattened. The emblems, by which, otherwise, this day is marked, are a *square slab with crosses on*, signifying the Saints' grave; sometimes a *ship* or a *boat* turned bottom upmost, in signification of sea-voyages coming to an end for the season. The Norwegian name for the day was *Helgomessa*.

5. *All Soul's Day*, Nov. 2nd, (dom. lett. E), is here marked by the *main beam of a cross flattened at the top*, but without the cross beam. On some calendars the day occurs marked by a *group of human figures*.

6. The emblem for *St Martin's Day*, Nov. 11th, (dom. lett.

G), the tenth day after All Souls', according to the law formula, is here an unusual one, and seems to signify *a star*. The common emblems are a *goose* or a *pig*, commemorative of the feasting in which Norwegian households would indulge on that day. A more appropriate emblem is met with on other Norwegian staves in the shape of a *Bishop's mitre*. The Norwegian name of the day was *Marten* or *Martens-messa*. Once upon a time this day appears to have been a day of great feasting, in the towns especially, because the country people indignantly used to observe, that the gamins of the cheaping-stead would make of it as great a festivity-as of Yule itself.

7. *St Clement's Day*, Nov. 23rd, (dom. lett. E, twelve nights to Clement mass, Archbishop John's Church law), has here the same emblem as St Simon and St Jude. See No. 3. In Norway the Saint went by the title of *Clement the Church builder*, and therefore his emblem is frequently a *church*, besides the common *anchor*, with respect to which I content myself to refer to what I have said in my paper on the Lapland Calendar, pp. 98—99. From this day children were kept on short commons in order to appreciate Christmas fare all the better.

8. *St Catharine's Day*, Nov. 25th, (dom. lett. G), is not mentioned in Archbishop John's law. It is here marked with a *simple cross*, as is frequently the case on Norwegian clogs. It is also signalised by the common *wheel-emblem*, which by Norwegian rurals was interpreted as an emblem of the spinning season, and of indoor occupations. Hence the popular saying: "*St Karin spins wicks for Christmas,*" (*St Karin spinder Lysevæger til Juul*). The weather prognostic of the day said: "*Clear weather at 'Karimesse' makes pretty lights at Yule.*" (*Klart Veir paa Karimesse gjør valkre Julelys*). The Norwegian name of the day was *Karensmesse* or *Karimesse*.

9. *St Andrew's Day*, Nov. 30th, (dom. lett. E, seven days after St Clement's Day, Archbishop John's law) is here signalised

by an emblem, which it is difficult to interpret. From a main-beam, flattened at the top, there spring on either side three branches; and the resemblance of this sign to that for Christmas Day is so close, that the only difference is, that in the Christmas Day emblem the second couple of branches terminate in a slight flattening. The general emblem is the well known *St Andrew's Cross*. On Norwegian clogs the day is also marked by a *fishing hook*, because on that day it was the proper thing to begin catching the Christmas fish. The Norwegian name of the day was *Andresmessa*.

10. *St Barbara*, Dec. 4th, (dom. lett. B), is an unknown Saint's day in Archbishop John's Church law. The emblems generally met with for the day are a *tower*, in commemoration of the tower, wherein Barbara's father, Dioscurus, a noble citizen of Nicomedia, kept her, or a *link*, suggestive of the chain, into which he threw her, when he learnt that, in consequence of her correspondence with *Origines*, she renounced the heathen gods, and embraced Christianity, c. 290. The emblem on our Calendar seems not quite capable of being interpreted in either sense. It seems to resemble a pointed edged instrument, and may signify a fleam or a lancet. The feast was called by the Norwegians *Barbro-Dögri*, *Barbara's (half) day*. Of this day the people used to say: *Barbro-day the sun goes away, Luci night returns he again (Barbro-Dögrin gaar Solen bort, Luci-Nåttin kommer den att.)*.

11. *St Nicolas' Day*, Dec. 6th, (dom. lett. D, six nights after *St Andrew's*, Archbishop John's law), is marked here with a *cross*, identical in form to *St Clement's cross*, but slightly less in size. The emblem of this Saint is, generally, a *bishop's staff*, or *three round balls*, in commemoration of his having in youth saved three poverty-stricken young maidens from sinfully earning their livelihood by throwing three lumps of gold into their father's house. On some calendars his emblem appears to be a *candelabrum*, with three branches lighted, possibly in

commemoration of the incident just mentioned, and suggestive of three souls having been saved. The Norwegian name of the day was *Nikulsmessa*. Up to a comparatively modern date the day is said to have been kept with great festivities in Norway, the Saint being worshipped as a patron Saint of the country.

12. The *Conception of the Virgin*, Dec. 8th, (dom. lett. F), is not found in Archbishop John's catalogue of 1280. It is noteworthy, that the emblem of this day, as well as that of the Visitation of the Virgin, 2-July, is a *simple cross*, while all the other days dedicated to the Virgin have the usual emblem, indicative of a *triple crown*. This fact, I think, undoubtedly points to the two days having had a similar history in the Norwegian Church. The feast of the Conception, although probably of a very considerable antiquity in the Church, had certainly fallen into desuetude in the Western Church in the 15th century; for the Council of Basle in 1439 ordained, that it should be renovated, and observed in all churches: *Nos festum conceptionis Mariæ renovamus et in omnibus ecclesiis observari volumus*. It may be taken for granted that, in the North especially, the observance of the day, even if it was known as a church festivity which it certainly was in the 13th century, was of an unofficial, loose kind, or it would have found its way into such an important document as the oft-mentioned Saints' days catalogue of Archbishop John. The identity of the emblem of this day, to that of the Visitation day, the observance of which was enforced also by a Council of Basle in 1431, seems silently to point out that both days were held of equal antiquity and honour in the church. The general emblem of the day, on Norwegian clogs, is a *can*, or *tankard*, suggestive of beer-brewing operations against Christmas having already commenced. The Norwegians called the day *Vor Frues Ventedör*, or the day of our Lady's expectation, she expecting by mistake to give birth to the Saviour on that day, according to some legends of her life.

13. *St Anne's Day*, Dec. 9th, (dom. lett. G), is unknown

in Archbishop John's law. It has for an emblem, *two side-branches springing from a main stem*, which probably means a crown two degrees lower in dignity than that of the Blessed Virgin herself. This feast was celebrated in Norway on the 26th of July up to 1436, when it was transferred to the 9th of December.

14. *St Lucy's Day*, December 13th, (dom. lett. D), not mentioned in Archbishop John's law. The emblem here signifies evidently the *cloven foot of an ox*; otherwise the day is signalised on clogs by *a torch or a flame*. The night following this day was popularly held to be the longest in the year—so long indeed, that, during it, animals got the faculty of speech, in order to give expression to the bitter realisation of hunger which its length enforced on them.

15. *St Thomas' Day*, Dec. 21st, (dom. lett. E), (fifteen days after St Nicolas' Day, Archbishop John's law). The emblem here, as frequently, is a simple *cross*. The typical emblem of the day is, otherwise, *a tankard or a barrel*, suggestive of beer provisions being laid in against Christmas. Hence the Saint figured in popular parlance irreverently as *Thomas the brewer*, *Thom o' the pot*. The day was of old a great tasting-day, as neighbours used to pay each other visits, for the purpose of mutually tasting each other's beer. This tour was called *Imber-Runn* or *Ember-run*, *Ember round*, because the fourth Ember days fell on the Wednesday, Friday, and Saturday, after Dec. 13, and St Thomas' Day, therefore, often came within the Ember week. In connection with this *Imber-Runn*, it is interesting to notice, that the words *Imber-* (*dagar, vika*) in Norway, and *Ymbur-* (*dagar, vika*) in Iceland, are terms borrowed directly from the Anglo-Saxon Calendar, *ymbren-* (*dagas, wuce*). The derivation of the word *ymbren* has by some been traced to *embers*, in the sense of *ashes*, as being symbolic of the fast enjoined for these days, by others to A.-S. *ymb-ryn* (*a running round*) *a revolution, circuit, circle, anniversary*. But neither

derivation is admissible. The term Ymbren represents merely one form of the various corruptions through which the Latin title of these fast-days *jejunium-quatuor temporum* has passed among the Germanic nations. With the Germans the corruption took the form, which it maintains to this day, *Quatember*; among the Danes it became *Tamper*, *Tamperdage*, and among the Anglo-Saxons *Ymber*-, *Ymbir*-, *Ymbur*-, *Ymbren-dagas*, which again passed into *Embring days*, and *Ember days* in modern English.

16. *Christmas Day*, Dec. 25th, (dom. lett. B), (four days after St Thomas' Day, Archbishop John's law), is here signified by an emblem which, in all probability, is meant for a *seven-branched candelabrum*, a common sign for the day on Norwegian clog calendars. From this day to Twelfth Night it was customary to draw the so-called *Yule marks* on a beam in the house, as reminders of the days passed, and the days still remaining of the festivity, which custom almost seems to suggest that the Christmas beer and mead interfered somewhat disturbingly with the memory of the household, and its due attention to passing time.

17. *Innocents' Day*, Dec. 28th, (dom. lett. E), is marked by a simple *cross*.

18. *The Feast of the Circumcision*, Jan. 1st, is the first day in our calendar where the relation between the day of the month and the dominical letters becomes disturbed. The first of Jan. here having nothing to do with the commencement of the year, the dominical letters go on, in the regular sequence from Dec. 31, A, to Jan. 1st, which takes the letter B for Sunday letter instead of the letter A. This disarrangement obtains throughout the calendar to the end of the year, Oct. 13th. The feast is unknown in Archbishop John's catalogue of Saints' days. The emblem for the day seems to indicate a *five-branched candelabrum*. Otherwise it has for emblem an *hour-glass*, a *triple cross*, or a *miniature representation of the*

sun. A red cloud seen in the sky on this day foreboded a coming war.

19. *Epiphany Day*, Jan. 6th, thirteenth day of Yule, Archbishop John's law, (dom. lett. G instead of F); is marked with an emblem which possibly signifies *three crowns*, in commemoration of the three wise men coming from the east, to do homage to the new-born Saviour. Otherwise the commonest emblem is, *three crowned human figures*; sometimes a *tankard*, signifying the last day of the Yule-drinking. The feast was called in Norway *Helligtrekongers Dag*, i. e. *Holy three Kings' Day*.

20. *St Canute's Day*, Jan. 7th, (dom. lett. A, i. o. G). Not mentioned in Archbishop John's law. This is the feast of the Danish Duke *Knút* of Sleswick, the son of King *Eric Ayegood*. He was betrayed and murdered, A. D. 1131, by his cousin *Mag-nús*, son of Nicolas, King Eric's brother, and successor to the kingdom of Denmark. *Knút's* son, *Valdemar the 1st*, King of Denmark, procured his father's canonisation in 1170. Duke *Knút's* commemoration was afterwards confined to the Churches of Denmark and Norway principally. Before 1170 this day was called in Norway *affarar dagr*, *Affare Dagen*, meaning that it was the day, on which the Yule guests took their departure. I have already alluded to the popular customs which were observed on this day in the North in my paper on the Lapland Calendar, p. 90. When the day became commemorative of St Canute, the popular saying attached to it: *St Knut kjörer Julen ut*, (*St Knút driveth Christmas out*). The emblem here is, *the main beam of a cross flattened at the top*. The general emblem is a *bell*, reminding of the Christmas season being rung out.

21. *St Julian of Antioch*, Jan. 9th, (dom. lett. C, i. o. B), suffered martyrdom together with his virgin wife *Basilissa* under the Emperor Diocletian. The emblem of the day is the same as that of the preceding. The day is unknown in Archbishop John's law.

22. *St. Brettiva*, Jan. 11th, (dom. lett. E, i. o. D), is a saint who was chiefly worshipped in Norway and Iceland. This local Saint's day is unknown in Archbishop John's law; but in the older *Gulatings lög*, from the eleventh century, it is already entered in the Catalogue of Saints' days, which are to be kept as holy days without the so-called *nón helgi*, that is, without the previous day being kept holy as a Sunday from *nón*, or from three o'clock in the afternoon. It is not known who this saint was; it is supposed that she was of Irish origin. In the Gulathings law her name is spelt *Brittifa*, but *Briativa* is another and common spelling of it as well. The name is still found in Iceland in the form of *Broteva*, which is popularly understood to mean the guilty Eve, *brot* meaning the breaking of a commandment, *trespass*. The emblem of the day is a *simple cross*; but on Norwegian calendars a *horse* is frequently introduced as an emblem of the day, and is said to owe its origin to a Norway farmer having driven out on that day for the purpose of fetching home a waggon load of hay; but, being met by a brother farmer, was asked if he knew that it was *Brette-messe*, as the name of the day was popularly pronounced, *brette* otherwise signifying violently to turn, double up, crease, whereupon he answered, "*Turn me this way, turn me that, but I shall turn me home a load of hay.*" But the horse stumbled and broke its leg. The mishap was enough to create a warning emblem against the repetition of the trespass by other folk. *Brykke messa* and *Brokkis messe* are also popular corruptions of the name of the day, still lingering among the people, and are said to derive their origin from the remnants of the Yule-fare being stewed in a pot, in Norwegian called *at brokke, brokke sammen*, for a final consumption by the household.

23. The 13th of Jan., (dom. lett. G, i. o. F), is in Norwegian Calendars dedicated to Bishop *Remigius of Rheims*, about 490, as well as the 1st of October. The day is unknown in Archbishop John's law. But it was also dedicated to St Hilary

throughout the Northern churches. If the signification of the emblem of the day could be made out, it might perhaps decide, to which of the two saints the day in this calendar belongs. But I cannot suggest what the sign may import.

24. *St Fabian's and St Sebastian's Day*, Jan. 20th, (dom. lett. G, i. o. F), was called in Norway and Iceland *Bræðra messa*, as if the two saints were brothers; that, however, was not the case. Fabian was a bishop of Rome, and suffered martyrdom A.D. 250 under the Emperor Decius. But Sebastian was a brave commander in the Roman army in the days of *Diocletian*; he had embraced Christianity, but had to expiate the crime A.D. 302 by being flogged to death, after having been shot at in vain by arrows. The general emblem for the day is *an axe*, which betokened the necessity of cutting down timber for household purposes on this day, as it was believed that the sap began to ascend the tree from that date onwards. Possibly the sign here may mean a lopping knife; but it may also mean a rod for flagellation. Unknown in Archbishop John's law.

25. *The Conversion of St Paul*, (nineteen nights after Twelfth Night, Archbishop John's law), Jan. 25, (dom. lett. E, i. o. D), has here for an emblem *a cross*, the main beam of which is flattened at the top. As to the other emblems which are found of this day, I refer to my paper on the Lapland Calendar, p. 92. The Saint acquires in Norway the name of *Paal Skyttar*, *Paal med Bogen*, *Paul with the bow*.

26. *Purification of the Virgin*, (eight nights after 'Paul's mass,' Archbishop John's law), popularly called *Kyndilmessa*, not a phonetic imitation of the Latin *missa candelarum*, or *candelaria*, but a translation of it, *kyndill* from *kynda*, to kindle, Feb. 2nd, (dom. lett. F, i. o. E), is signalled by an emblem, which may appropriately mean the Virgin's triple crown, or else a seven-branched candelabrum. The former, however, is in all probability the real signification of the emblem, because the form coincides identically with the rest of the Virgin's days,

when we except the days of her Conception and Visitation, to which I have referred already under No. 12, Dec. 8th. This feast was one to which a variety of ecclesiastical customs were attached in the North, as in the South and the East. Churches were illuminated on this day, wax candles, for church and domestic use, were consecrated with great ceremony, *Benedictio Candelarum*. Originally the churching of mothers, for which the priest received a wax candle, arose out of the tradition, and the ceremonies of Candlemas. The candles which had been consecrated did service for the purpose of scaring evil spirits away from the infant's cradle, from the sick-bed, and from the dead lying on their bier.

27. *St Blase*, unknown in Archbishop John's law, Feb. 3rd, (dom. lett. G, i. o. F), has the same emblem as All Souls, St Canute, and St Julian. St Blase, Bishop of Sebaste in Cappadocia, suffered martyrdom under Diocletian c. 302. The Norwegians called his day *Blasiusmessa*, but more frequently, in popular parlance, *Blaasmessa*. This corruption, representing phonetically the root of the verb *at blaasa*, which means *to blow, to puff*, gave rise to the superstition that this saint was a kind of Æolus, ruler and director of the winds; wherefore the belief was, that if the day was blustering, the saint threatened a windy, stormy year. In such awe was he held by sea-farers especially, that they would not name his name during his day. The emblem of the day is therefore most frequently on the clogs a human head in puffing attitude, or else a sailing ship.

28. *St Agatha's Day*, unknown in Archbishop John's catalogue, Feb. 5th, (dom. lett. B, i. o. A), has got an emblem in this calendar, the meaning of which I am unable to make out. This virgin saint, whose citizenship was for centuries a bone of contention between the towns Catania and Palermo in Sicily, suffered martyrdom, according to her biographer, *Simon Metaphrastes*, under Decius, in the year 251. In Norway the legend got current, that she had been *brushed to death*, wherefore girls

would abstain from brushing their hair on that day. Another legend was also common, referring to some lady *Agathe* or *Agot*, whose nose and ears had been eaten off by mice, and whose escape from utter death was due to a prayer to God for deliverance, and a promise to keep the day holy ever afterwards. Hence the day is frequently marked on the clogs by a mouse, and bears the name of *Musedagen*, the *Miceday*. Both legends form apparently a somewhat insipid corruption of the story of the saint's tortures; rolling her in potsherds and gleeds, f. e., takes the form of brushing. Nose and ears being eaten off by mice seems to refer to her breasts having been cut off. However, she is frequently represented, out of the North, as set upon by the devil, in the guise of mice, for the purpose of frightening her into sin. *Agots mÛssa* was the current Norwegian name of this day.

29. *St Dorothy*, unknown in Archbishop John's catalogue, Feb. 6th, (dom. lett. C, i. o. B), is here marked by the same simple emblem as St Blase. Otherwise her emblem is generally a cross. The saint suffered martyrdom at *Cæsarea* in *Cappadocia* about A.D. 308.

30. *St Scholastica's Day*, unknown in Archbishop John's catalogue, Feb. 10th, (dom. lett. G, i. o. F), is marked with a simple cross. St Scholastica was the sister of St Benedict of Nursia, and established a convent for nuns in Monte Cassino.

31. Against the 19th of Feb. is a cross, flattened above, and therefore seemingly indicating the day as belonging to a saint of consideration. The name given in Norwegian Calendars to the saint of the day is St Ammon; but to such a saint I find the 19th of Feb. dedicated nowhere, but in Norway. The name being foreign cannot be that of a local or national saint. It corresponds well enough with that of Ammon or Ammun, the hermit of Mount Nitria in Egypt, ob. cc. A.D. 354, the only saint of that name I find mentioned. His day however is October 4th. But that need not stand in the way of our

Norwegian saint being identical with the Mount Nitria hermit, for extraneous saints were taken up by vows, and by a variety of other accidents, and a day was given to them, sometimes at a haphazard, when their proper day was either not known or already occupied by another known and popular Saint. And the 4th of October was already from the 13th century occupied throughout the North by the great confessor of Assisi.

32. *St Peter's Chair*, unknown in Archbishop John's catalogue, Feb. 22nd, (Dom. Lett. E, i. o. D), has a sign in the form of a cross, possibly in commemoration of the mode of the Apostle's martyrdom. Generally the emblem is a *key*. The popular belief in Norway is, that on this day the saint throws warming stones into sea and waters, so as to cause the ice to thaw. In Iceland a similar belief is current, only there the stone is thrown into the bowels of the earth, which causes her to begin warming up and undoing from within the icy bonds of winter. As the weather is on this day, so, it is believed in Norway, will it remain for forty successive days.

33. *St Matthias' Day*, (twenty-two nights after 'Paul's mass,' Archbishop John's catalogue), Feb. 24th, (dom. lett. G, i. o. F), here marked by a *simple cross*. Besides the emblems for the day mentioned in my paper on the Lapland Calendar, it is sometimes signalled by a *couple of flags*, on Norwegian calendars. The current name of the day is *Laupaars messe* or *Leap-year mass*, because formerly the leap-year day was intercalated after the 24th of February, in which case St Matthias' day fell on Feb. 25th.

34. *St Gregory's Day*, (sixteen nights after Matthias' Day, Archbishop John's catalogue), March 12th, (dom. lett. B, i. o. A), has for emblem a *cross*, similar to those which mark the Conv. of St Paul, St Nicolas', St Clement's and St Simon and St Jude's Days. A common sign for it on Norwegian clogs is a *crow*, of which the legend says, it was once upon a time heard singing: *Gregory's mass you may await me; Mary's mass* (i. e.

25th of March), *I am sure to come; if I come not before first Summer's day, I shall then come, even if need be, on a staff* (crutch). Cpr. the popular saying about *Vet-næst*, p. 144. If there is a south wind on that day and the eaves of the houses are dripping, a good year may be expected. For further popular observances attached to the day, see my paper on the Lapland Calendar, p. 93.

35. *St Gertrude's Day*, not known in Archbishop John's catalogue, March 17th, (dom. lett. G, i. o. F), is here marked by a *simple cross*. It is possible that the day here is rather meant for *St Patrick*, who was a much more famous saint in the North than *Gertrude of Brabant* (A.D. 664). The common emblem of the day on Norwegian clogs is a *pike-staff*, because St Peter, said the popular legend, then came with his pike-staff to try, how thick and firm the ice was. The function is evidently attributed to the wrong saint, and belongs, rightly no doubt, to *Peter the Martyr*, to whom the day after St Gertrude's day is dedicated.

36. *The day of the Annunciation of the Virgin*, (thirteen nights after Gregory's Day, Archbishop John's catalogue), March 25th, (dom. lett. A, i. o. G), is marked here with a *triple crown*. On later clogs it is marked by a *madonna figure*. This day was carefully observed by rural weather-prophets of old. Thus it was commonly believed that rivulets, which ran before this day from thaw, would stand as many days after it still with frost; as the weather was during the night, so it would remain for three weeks after; and if the night was clear it would ensure a good peas harvest. "*By this day*" the saying was, "*begins sledge-travelling to leave off.*"

37. *St Celestine's Day*, not known in Archbishop John's catalogue, April 6th, (dom. lett. F, i. o. E), is marked with a *simple cross*. Pope Celestinus died in 433.

38. We now come to the second half year of the annual cycle, the Summer, which begins with *Tiburtius' Day*, not en-

tered in Archbishop John's catalogue, April 14th, (dom. lett. G, i. o. F). The sign here is evidently the common one of a *sprouting tree*. *Tiburtius*, or rather *Tibertius*, *Valerianus* and *Maximus* suffered martyrdom together under the Emperor Commodus, A.D. 174. This *Tiburtius* is sometimes in Northern Calendars mistaken for another martyr of the same name, to whom the 11th of August is dedicated, and who suffered under *Diocletian* and *Maximin*, A.D. 230. For the popular observances I refer to my Lapland Calendar, p. 81. The popular name of the day is *förste Sommerdag*, or *Sumarsnætt*.

39. *St Magnus' Day*, (two and twenty nights after Mary's mass, Archbishop John's catalogue), April 16th, (dom. lett. B, i. o. A), is dedicated to *Magnus*, Earl of Orkney, who died in 1115. Its emblem here is a *simple cross*, otherwise it is generally marked by a *pick-axe*, suggestive of commencing field labour.

40. *St Mark's Day*, (nine nights after 'Magnus' mass,' Archbishop John's catalogue), April 25th, (dom. lett. D, i. o. C), has here a compound sign of a *cross, and three branches on the top of it*. No doubt the sign conveys some allusion to the religious rites which were observed on this day, it being the great Rogation day, called *Gangdagr*, *Ganging day*, *Procession day*; and sometimes qualified as *gangdagrinn eini*, or *mikli*, the one or the great Rogation day, to distinguish it from the Rogation days, which fell in Rogation week, or the second week before *Whit-Sunday*. On some Norwegian calendars the day is marked by a rod surrounded by a cloud of small points, which the legend says commemorates a fall of snow so deep that it exceeded in thickness the length of a surveyor's rod, for the thawing of which a general and severe fast was observed in the country.

So far our calendar has assigned correctly every feast and saint's day to its proper day of the month. But from the next feast day,

41. *the day of the Apostles St Philip and St James*, seven

nights after St Mark's Day, Archbishop John's catalogue, April 30th; instead of May 1st, down to the Divisio Apostolorum, July 15th, all the Saints' days, with the exception of two, fall one day too early, consequently, on the right Sunday letter, as the Sunday letters are arranged in this calendar, but on the wrong day of the month. The cross, therefore, that is marked here against the 30th of April should be against the 1st of May, according to the provision of Archbishop John's catalogue: from Rogation day are vi nights to the mass of the Apostles S. Philip and S. James. This day was generally called *tveggja postula messa*, (*mass of the two apostles*), and *Gauks messa*, *Gauks mass*, (*Cuckoo mass*), because then the cuckoo was expected to make its appearance. Hence the general emblem for the day is a *cuckoo*. If the girls heard the cuckoo sing before they had broken their fast, it was an evil omen. If the cuckoo was heard this day in the north, it was a *nágaukr*, *Naagauk*, *death-cuckoo*, and boded the hearer death; if in the south, it was a *sáðgaukr*, *Saagauk*, *seed-cuckoo*, and foretold good luck to harvest; if in the west, it was a *vilgaukr*, *Viljagauk*, *will-cuckoo*, signifying that the hearer's will and wishes would be fulfilled; if in the east, it was an *ástgaukr*, *guile-cuckoo*, hinting that the hearer's love would be responded to. If the cuckoo continued to sing after it had seen the first hay-rick, it foretold coming famine, or hard times, at least. If corn and herbs were sown on cuckoo day, they would thrive and speed well till harvest. But to break the sod on that day was a thing to be heeded against, because whatever was sown in earth so broken was doomed to consumption by worms.

42. *Invention of the holy Cross* (two nights after St Philip and St James, Archbishop John's catalogue), May 3rd, (dom. lett. E, i. o. D), falls here on the right day of the month, and at the right distance, prescribed by law, from the preceding festival. The sign is here a *cross combined with two branches springing out from the top of it*; what those branches mean I

have not been able to discover. By this date all fences and railings should be in full repair. At this date also the sheep should be fleeced; this was the last day in the summer-season on which the live stock should be fed in the house; on the morrow it was turned out to shift for itself during the summer.

43. *St Hallward's day* should fall, according to Archbishop John's catalogue, on the 12th day 'after cross-mass,' which is the 15th of May. Here, however, it falls on the 14th, a date, which indeed is given to the saint in foreign Breviaries, and by the editors of the *Acta Sanctorum*. But the right date is the 15th, for on that day the saint's memory has been commemorated from the beginning in his own mother-church. St Hallward is a local saint of Norway. He was a near kinsman of St Olaf, the national saint, and was slain while attempting to rescue from her persecutors a woman falsely accused of a dreadful crime. Having killed him with their spears, his enemies tied a millstone to his neck, and cast him into the sea in the firch of *Drammen*. Hence the emblem, which is an unmistakable representation of a millstone, and is the common one by which the day is marked on Norwegian clogs. Sometimes the day is marked by points representing grain, because the day was considered to be a propitious day for sowing corn. But on the mountain "the reindeer calf should still go hoof-deep in snow," and the relapse in the weather from warmth into cold, which would sometimes take place about this day, was called the *reindeer chill*. He who did not take care to sow his corn about this date, might count on what was called *árprot*, *Aar-throt*, i. e. *unripe harvest*.

44. *St Erasmus' Day*, not known in Archbishop John's catalogue, June 3rd, (dom. lett. A, i. o. G), falls on the right day of the month here. The emblem is a *simple cross*. St Erasmus, bishop and martyr, fell under the Diocletian persecution after having led a hermit's life in Lebanon for some

seven years. His tortures were, according to his biographers, of the most horrible character. He finally succumbed amidst unutterable agonies, A. D. 301.

45. *St Columbas' Day*, not known in Archbishop John's catalogue, June 9th, (dom. lett. G, i. o. F), falls here on the right day of the month. The name of the Apostle of Scotland was changed in Norway into the common vernacular name *Kolbjörn* and, because the salmon began to revisit the rivers about this day, the name *Kolbjörn med Laxen*, (*Kolbjörn with the salmon*), was given to the saint. Hence a salmon is a common emblem for the day; and it is possible that the emblem here is meant to suggest a salmon trap, which often was set out in the form of a square chest.

46. *St Botolph's Day*, thirty-three nights after St Halward's, Archbishop John's catalogue, falls here wrongly on the 16th, instead of the 17th of June. It is not obvious what special meaning in connection with the day the emblem is meant to convey. Generally Norwegian clogs signalise the day by a cross with a straw growing up from it. In agricultural districts it was held to be a good rule on this day to plough fields which were to lie fallow for the year, because the roots were loose, and the sward therefore easily workable. Possibly the emblem is a reminder of this agricultural custom, and represents roots torn up from the soil. The day was commonly called by the rural population *Botssok*, a corruption of *Bótólfs vaka*, i. e. *Botolph's wake*. Possibly the emblem refers to torches or fires lighted during the night.

47. *The Nativity of St John*, (seven nights after St Botolph's, Archbishop John's catalogue), falls here on the 23rd instead of the 24th of June. This was midsummer's night with the Norwegians, as with most other nations in western and northern Europe. The emblem for it was generally a sun on the top of a pole. The emblem in our calendar may mean either a leafy tree, or, with reference to the fires which used

to be lit during the night, a *blazing beacon*. The Norwegian name for the day was *Jonsmesse dag* or *Jonssok*, a corruption of *Jonsvaka*, *John's wake*. If it rained on this day, it was taken as an omen of bad harvest in hazelnuts, and of a wet-some autumn. On this day tar should be boiled, and with it should be made a sign of the cross on the live stock, in order to protect it from wild beasts, and the mischief of ill-disposed mountain sprites.

48. *The Feast of St Peter and St Paul*, five nights after St John's, Archbishop John's catalogue, falls here on the 28th instead of the 29th of June. The emblem is the common one, a *key*. On this day, said the popular legend, did the Saviour deliver a golden key to the gate of heaven into the Apostle's hand; hence the day was called *Peter with the golden key*. The Norwegian common name for the day was, however, *Petersmesse* or *Petersvaka*, *Peter's wake*.

49. *The Visitation of the Virgin Mary* falls here on the 1st instead of the 2nd of July. The emblem is, as against the Conception of the Virgin, a simple cross. For further information concerning the day, I refer to my Lapland Calendar, pp. 95, 102. I should, however, mention, that this day, which commemorates the Enshrinement of St Swithun, was as *Svituns messa*, observed at a very early date in Norway, for in the older Gulapings lög the observance of the feast is already provided for. And from the beginning this was the principal day of the saint in the Norwegian church. But if the framer of the calendar meant the day for *Svituns messa* he would probably have distinguished it by its proper emblem, which was a *fagot of birch and a fagot of alder laid across each other*. This emblem, I may add, sprang out of a corruption of the name of *St Swithun*, which from *Svituns messa*, *Svitunsvaka* became *Sviftuns messa*, *Sviftuns vaka*, *Syftunsvaka*, and at last *Syftesok*. *Syfte* fell, in form, together with the verb *at syfte*, which meant to *sweep*, and hence the emblem was considered to commemo-

rate an agricultural custom, by which a kind of *besom* used to be set up in the fields, on the night of *St Swithun's* day accompanied by the formula: "*Now will I sweep the weeds from the field, and set in its stead alder and birch, that it may grow both fine and fresh.*"

50. *St Sunniva's Day* (six nights after the preceding festival, Archbishop John's catalogue) is here marked for the 7th, instead of the 8th of July. There can be no mistake about this, because the sign here is the common one for Sunniva's day, a *three-pronged fork*, the meaning of which, however, is not known. According to the legend, *Sunniva* was the daughter of an Irish king. In order to escape from marrying a heathen king in Ireland, she fled away, in company with a number of men and women, and was driven by storm upon the western coast of Norway, where she, with her company, sought shelter in some caves in the island of *Selja*, now *Sellö*. But the neighbouring inhabitants of the country put them all to death, by walling them up in the caves in which they had sought refuge. In the year 995 their remains were discovered, and a church was built on the spot in commemoration of their martyrdom. The current Norwegian name for this feast was *Seljumanna messa* or *the mass of the men of Selja*.

51. *The day of the Division of the Apostles*, unknown in Archbishop John's catalogue, falls here on the 14th instead of the 15th of July. The emblem is evidently suggestive of the event commemorated on the day. What the simple staff may signify which is attached to the day preceding this I cannot say.

52. *St Margaret's Day* (twelve nights after *St Sunniva*, Archbishop John's catalogue) falls again on the right day of the month, the 20th of July, (dom. lett. F, i. o. E). The emblem is a small cross. In rural parlance the saint is called *Margit*, and she is believed to bring with her a down-pour of rain, whence the name *Margit water-ladle*, the common emblem

of the day being also a *ladle*. On this day should the farmer touch neither field nor meadow; if he did so, it would result in nothing good for him.

53. *St Mary Magdalene*, (two nights after the preceding, Archbishop John's catalogue), July 22nd, (dom. lett. A, i. o. G), has also for emblem a simple *cross*. Otherwise her emblem is a *chair*, commemorating the legend which said, that the Virgin loved her so much, that she vacated her own chair for her, on her assumption in heaven. On this day might no grass or hay be touched.

54. *St James' Day*, July 25th, (three nights after St Mary Magdalene, Archbishop John's catalogue), (dom. lett. D, i. o. C), has here a sign which it is difficult to make out. It should be a hat, from which water is dripping, for the saying is that on his day *he cometh and wetteth the hops*, hence his day is called *Jacob or James wethat*, the other names for it being *Jakobsnessa*, and *Jakobsok*, i.e. *James' wake*.

55. *St Olaf's Day*, (three nights after St James, Archbishop John's catalogue), (dom. lett. A, i. o. C), has for emblem the usual sign, a *battle-axe*, commonly called *Olaf's axe*. This is the greater, or first *Olaf's mass*, *Olafnessa förre*, *O. store*, in commemoration of the martyrdom of St Olaf, which took place really, not as is by oversight stated in my paper on the Lapland Calendar, p. 97, on the 31st of July, but on the 31st of August; and is thus called in contradistinction to the Translation of St Olaf, August 3rd (dom. lett. F, i. o. E) which was called *Olafnessa síðari* or *vesle O.*, the *later*, the *lesser Olaf's mass*. Both days are more popularly called *Olafsok*, i.e. *Olaf's wake*.

56. *St Peter; ad vincula*, not known in Archbishop John's catalogue, August 1st, (dom. lett. D, i. o. C), is marked with a sign, which I think must be meant for a *key*. The Latin name of the day was corrupted into the senseless *Pœvinkel*. This day, it is not uninteresting to notice, retains still to this

day its *Anglo-Saxon* name in the English Prayer-book, almost unchanged, in the form of *Lammas day*, A. S. *láfmaesse*, i. e. *loaf mass day*, from the very early custom observed on that day, to bring a loaf of bread to the church, as a first offering of the fruit of the year.

57. *St Olaf*, (five nights after Olaf's first day, Archbishop John's Catalogue), August 3rd, see No. 54.

58. *St Lawrence' day*, (seven nights after the Translation of St Olaf, Archbishop John's catalogue), August 10th, (dom. lett. F, i. o. E), has got the common emblem, *the gridiron* on which the saint was roasted to death.

59. *The day of the Assumption of the Virgin*, (five nights after St Lawrence, Archbishop John's catalogue), August 15th, (dom. lett. D, i. o. C), was considered the greatest of all the feast days of the Virgin, and was therefore called *vor Frue Dag dyre*, (*our Lady day dear*). It was also called by the apparently odd title *Mariumessa fyrri*, the prior Mary's mass, which is to be explained in this way. In the Winter half year there was only one day, devoted to the Virgin, called *Mariumessa*, namely the Annunciation day, March 25th; the Conception day being of late introduction, and the Purification day always bearing the name of *Candlemass*. But the Annunciation day did not get the name of the *first* Mary's mass, because anciently, as is explained in my paper on the Lapland Calendar, the two half years, were really two separate years, distinct from each other in the minds of the people. (See Runic Calendar found in Lapland, pp. 76—79.) Hence, there being only two days devoted to the Virgin from of old, in the Summer half year (the Visitation day being of a very late date), this day naturally got the name of *prior Mary's mass*, the Nativity, that of the *Second or later Mary's mass*.

60. *St Bartholomew*, (nine nights after the Assumption day, Archbishop John's catalogue), Aug. 24th, (dom. lett. F, i. o. E), has here the common sign, *a knife*. From the

emblem there arose by mistake a popular superstition, that the knife really meant slaughter of live-stock for winter consumption.

61. *St Giles' Day*, not known in Archbishop John's catalogue, Sept. 1st, (dom. lett. A, i. o. F), is here provided with a sign which it is difficult to reconcile with the common emblem for the day, *a couple of mill-stones*. The day was called *Kverne-knarren*, the *Quern-grinder*. If the day was dry, it was expected, the mill would have a scanty water supply throughout the autumn. The Norwegian name of the day was *Yljansmesse* and *Orjanssmesse*.

62. *The day of the Nativity of the Virgin*, (fifteen nights after St Bartholomew, Archbishop John's catalogue), Sept. 8th, (dom. lett. A, i. o. F), the common sign, a *triple crown*. Otherwise the sign is *a pair of sheep-shears*, as on this day the sheep were to be clipped. Good weather on this day betokened fine weather for three weeks more.

63. *The day of the Exaltation of the Holy Cross*, (six nights after the Nativity, Archbishop John's catalogue), Sept. 14th, (dom. lett. F, i. o. E), is marked, as usually, with a *double cross*. This day marked the commencement of autumn; by this time the harvest should be in.

64. *St Matthew's Day*, (seven nights after the Exaltation of the Cross, Archbishop John's catalogue), Sept. 21st, (dom. lett. F, i. o. E), is here marked by a *cross*; otherwise with *an axe*, because at this time should be laid in stores of leaves towards winter; *a horse* and *a boot* are also found as emblems of the day, suggestive of rainy season and slushy roads.

65. *St Firminus's Day*, not known in Archbishop John's catalogue, Sept. 25th, (dom. lett. C, i. o. B), has a sign of which I cannot make out the meaning. St Firm. was even as a young man a famous preacher and a man of great zeal; he is by some maintained to have been the first bishop of Amiens, and to have suffered martyrdom in that city some time between 250—305.

66. *St Michael's Day*, (eight nights after St Matthew's, Archbishop John's catalogue), Sept. 29th, (dom. lett. G, i. o. F), is marked by a *pair of scales*, the ordinary emblem for the day. It was popularly believed, that what length of time rime and frost obtained before Michaelmass, so long would rime and frost prevail before Cuckoomass. It is a mistaken notion on the part of Norwegian writers on calendric lore, to suppose that the scales of the Archangel have anything to do with market towns. The scales, on the contrary, are commemorative of the archangel's eternal function of weighing souls, a legend in which the mediæval artist, poet and priest all alike took the keenest interest, and of which there is an infinite variety of renderings in ecclesiastical art.

67. *St Francis*, Oct. 4th, (dom. lett. E, i. o. D), is marked by a *cross*, otherwise he is marked by *half a cross* only on some Norwegian clogs, while on Swedish staves he is signalized by a *fish*, a *cloister*, a *book*, or, as here, with a *cross*.

68. *St Bridget*, Oct. 7th, (dom. lett. A, i. o. G), has got here the same sign as St Anne, the Mother of the Virgin, Dec. 9th, which, no doubt, means a crown two degrees below the Virgin's. On some clogs her emblem is a *house*, suggestive of the Order, which commemorated her memory in Sweden, and was called after her the *Brigittines*. The day was popularly called the *cale-day*, because the cale should be cut on this day, to be saved from frost and winter. Sometimes the day has got two *heather-bushes* for emblems, because the saying went, that on this day the bear began to prepare his dormitation lair by gathering ling to it. A *book* and a *tankard* are also found attached as emblems to the day.

69. The last saint's day in our calendar, *St Dionysius* or *Denys* or *Dennis*, Oct. 9th, (dom. lett. C, i. o. B), is marked by a sign which probably means *an axe* in token of his-martyrdom. He was bishop of Paris, and was put to death by the governor of the city, 286.

Out of the 69 Saints' days which the calendar contains, a good number is marked by an identical sign, which seems to indicate that the carver of the calendar ascribed equal degree of veneration to the saints, to whom he gave the same sign. Thus we find marked by a simple cross :

1	St Ursula	Oct. 21st.
2	St Catharine	Nov. 25th.
3	Conception of the Virgin	Dec. 8th.
4	St Thomas	„ 21st.
5	Innocents' day	„ 28th.
6	St Brettiva	Jan. 11th.
7	St Scholastica	Feb. 10th.
8	St Matthias	„ 24th.
9	St Gertrude	March 17th.
10	St Celestine	April 6th.
11	St Magnus	„ 16th.
12	St Philip and St James	May 1st.
13	St Erasmus	June 3rd.
14	Visitation of the Virgin	July 2nd.
15	St Margaret	„ 20th.
16	St Mary Magdalene	„ 22nd.
17	St Matthew	Sept. 21st.
18	St Francis	Oct. 4th.

By a cross with the main beam flattened at the top :

1	St Simon and St Jude	Oct. 28th.
2	St Clement	Nov. 23rd.
3	St Nicolas	Dec. 6th.
4	Conversion of St Paul	Jan. 25th.
5	St Ammon ?	Feb. 19th.

By a main beam of a cross only, flattened at the top :

1	All Souls' day	Nov. 2nd.
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2	St Canute	Jan. 7th.
3	St Julian	„ 9th.
4	St Blase	Feb. 3rd.
5	St Dorothy	„ 6th.

It is probably only an accident that the two last mentioned groups of emblems are only confined to the winter semestre.

An identical repetition of other signs in the calendar occurs only in the case of that for St Anne's and that for St Bridget's days, which I take to be a crown, and in the case of that for Epiphany day, which is identical with the signs for the feast days of the Virgin.

* * * In the following pages I have printed the whole calendar in full, adding the month, day, and dominical letter, as well as the festival which is marked by each symbol.

+	21	E	B		St Thomas, Ap.				
	22	F	G						
	23	G	A						
	24	A	B	E	Christmas Day.				
	25	B	C						
	26	C	D						
+	27	D	E	R	Innocents' Day.				
	28	E	F						
	29	F	G						
	30	G	A						
	31	A	B	A	Circumcision.				
	1	B	C	J					
	2	C	D						
	3	D	E						
	4	E	F						
	5	F	G	A					
	6	G	A		Epiphany.				
	7	A	B		St Canute (Duke).				
	8	B	C						
	9	C	D		St Julian.				
	10	D	E	N					
	11	E	F		St Brettiva.				
	12	F	G						
	13	G	A		St Hilary.				
	14	A	B	U					
	15	B	C						
	16	C	D						
	17	D	E						
	18	E	F						
	19	F	G						
	20	G	A	A	St Fabian and St Sebastian.				
	21	A	B	Y					
	22	B	C						
	23	C	D						
	24	D	E	Y	St Matthias.				
	25	E	F						
	26	F	G	A	St Peter's Chair.				
	27	G	A	R					
	28	A	B						
	29	B	C						
	30	C	D						
	31	D	E	R	St Ammon.				
	1	E	F	A					
	2	F	G						
	3	G	A						
	4	A	B	U					
	5	B	C						
	6	C	D						
	7	D	E						
	8	E	F						
	9	F	G						
	10	G	A	R	St Scholastica.				
	11	A	B						
	12	B	C						
	13	C	D						
	14	D	E						
	15	E	F						
	16	F	G						
	17	G	A	A					
	18	A	B						
	19	B	C						
	20	C	D						
	21	D	E	R					
	22	E	F						
	23	F	G						
	24	G	A	Y	St Dorothy.				
	25	A	B	E	St Agatha.				
	26	B	C						
	27	C	D						
	28	D	E						
	29	E	F	B					
	30	F	G						
	31	G	A	F	St Blase.				
	1	A	B		Purification of the V. Mary.				
	2	B	C						
	3	C	D						
	4	D	E						
	5	E	F						
	6	F	G						
	7	G	A						
	8	A	B						
	9	B	C						
	10	C	D						
	11	D	E						
	12	E	F						
	13	F	G						
	14	G	A						
	15	A	B						
	16	B	C						
	17	C	D						
	18	D	E						
	19	E	F						
	20	F	G						
	21	G	A						
	22	A	B						
	23	B	C						
	24	C	D						
	25	D	E						
	26	E	F						
	27	F	G						
	28	G	A						
	29	A	B						
	30	B	C						
	31	C	D						



 8 F E

 7 E D

 6 D C

 5 C D B

 4 B A J

 3 A G

 2 G F

 1 F E

 31 E D

 30 D C

 29 C B

 28 B A

 27 A G

 26 G F

 25 F E

 24 E D

 23 D C Y

 22 C B

 21 B A

 20 A G

 19 G F

 18 F E

 17 E D

 16 D C

 15 C B



 14 B A

 13 A G A

 12 G F

 11 F E

 10 E D

 9 D C

 8 C B

 7 B A

 6 A G

St Erasmus.

St Hallward.



 12 E D

 11 D C

 10 C B U

 9 B A

 8 A G

 7 G F

 6 F E

 5 E D

 4 D C J

 3 C B

 2 B A

 1 A G

 30 G F

 29 F E

 28 E D

 27 D C

 26 C B

 25 B A E

 24 A G

 23 G F

 22 F E

 21 E D

 20 D C

 19 C B N

 18 B A

 17 A G



 16 G F

 15 F E

 14 E D U

 13 D C

 12 C B

 11 B A

 10 A G

 9 G F



 St Columba.

St Sunniva.

Visitation of the
V. Mary.

St Peter and St
Paul.

Nativity of St
John Baptist.

St Botolph.

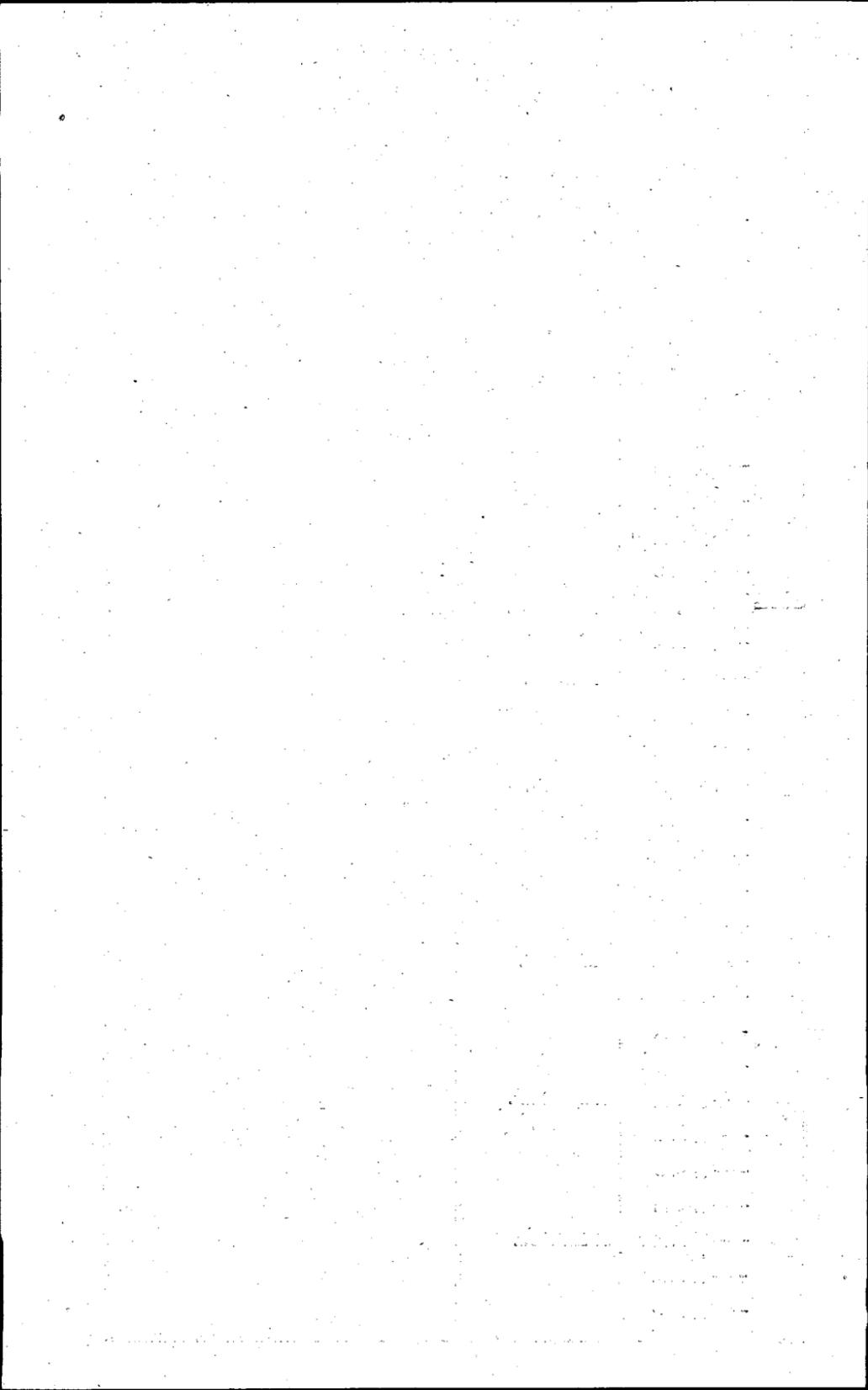
	15	Assumption of the V. Mary.	18		
	14		17		
	13		16		
	12	G -	15		
	11		14		
	10	St Lawrence.	13		
	9		12		
	8		11		
	7	U	10		
	6		9		
	5		8		
	4	A	7		
	3	St Olaf.	6		
	2		5		
	1	St Peter ad Vincula.	4		
	31		3		
	30		2		
	29	St Olaf.	1		
	28		31		
	27		30		
	26		29		
	25	St James.	28		
	24	Y	27		
	23		26		
	22	St Mary Magdalene.	25		
	21		24		
	20	St Margaret.	23		
	19		22		
	18		21		
	17	L	20		
	16		19		
	15		18		
	14	Divisio Apostolorum, Bonifacius.	17		
	13		16		
			15		
			14		
			13		
			12		
			11		
			10		
			9		
			8		
			7		
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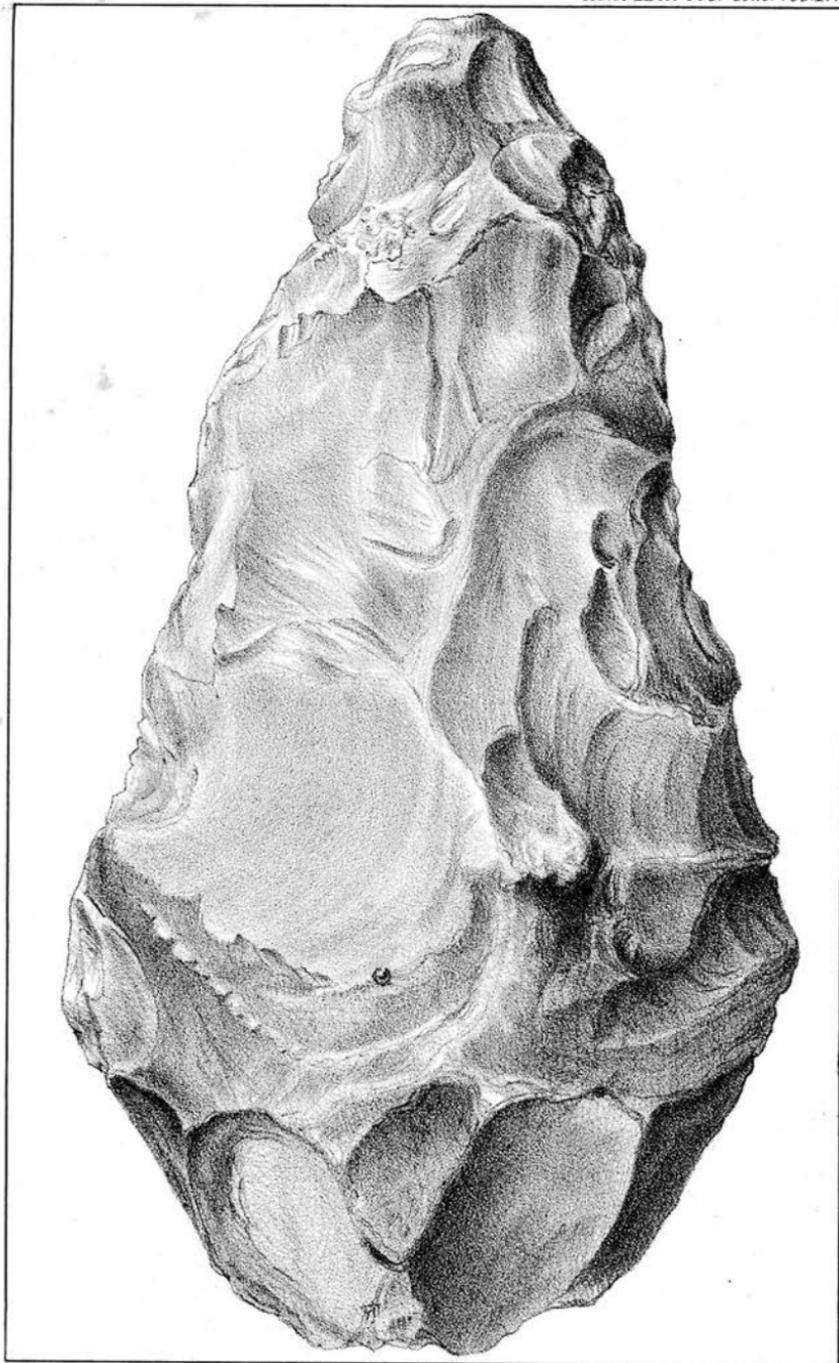
Exaltation of the Holy Cross.

Nativity of the V. Mary.

St Giles.

St Bartholomew.

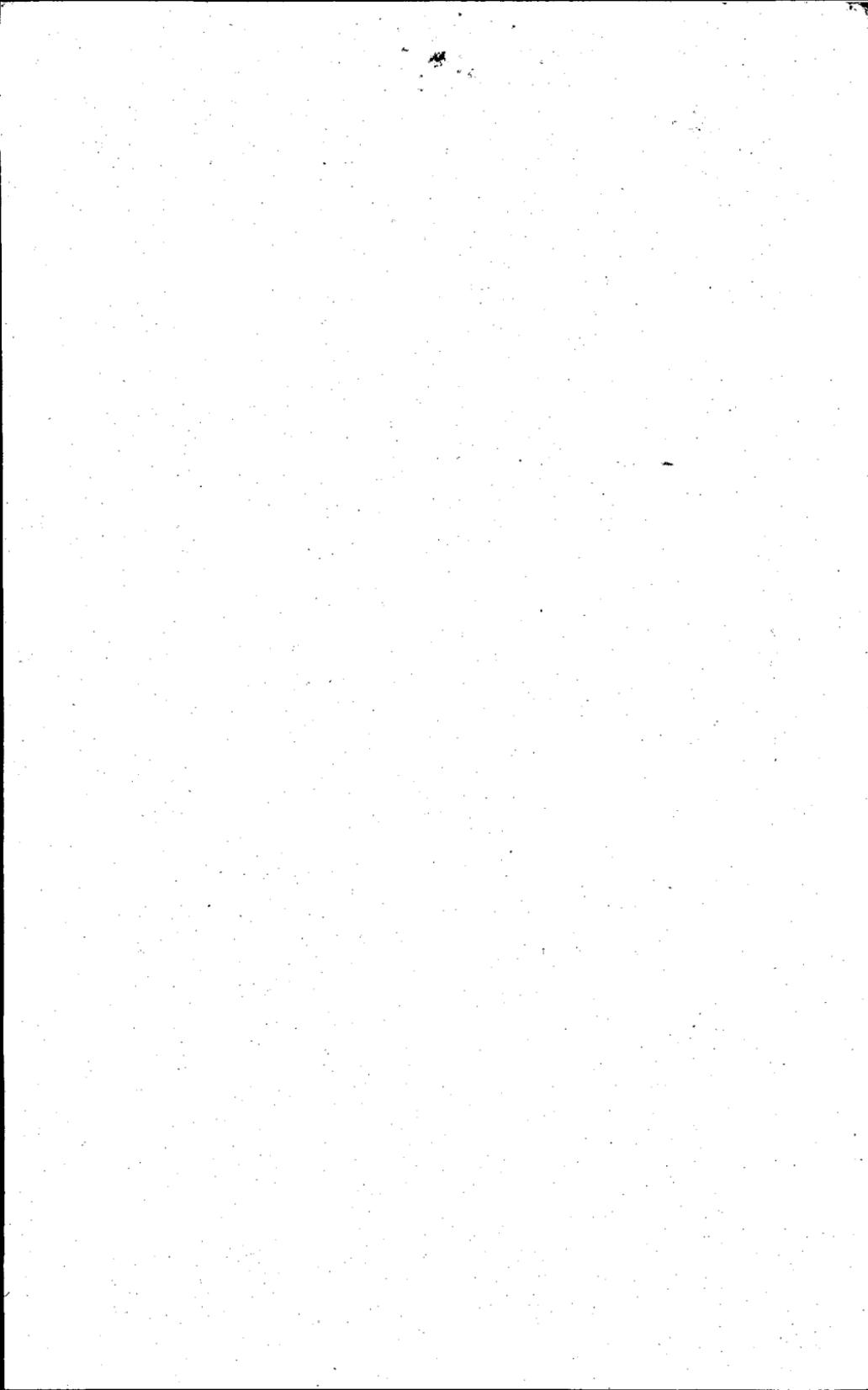


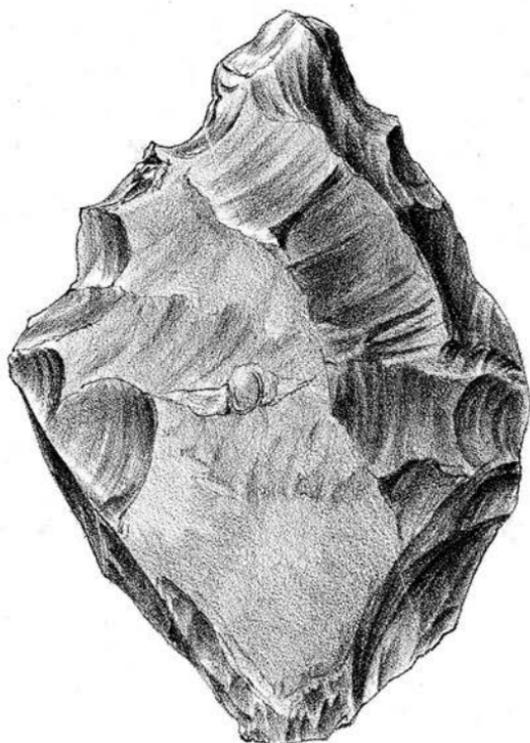


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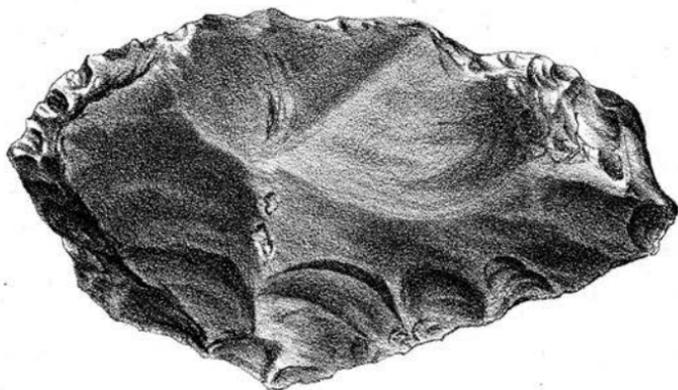
FLINT IMPLEMENT FROM THE BARNWELL RIVER GRAVEL.

(Natural Size.)



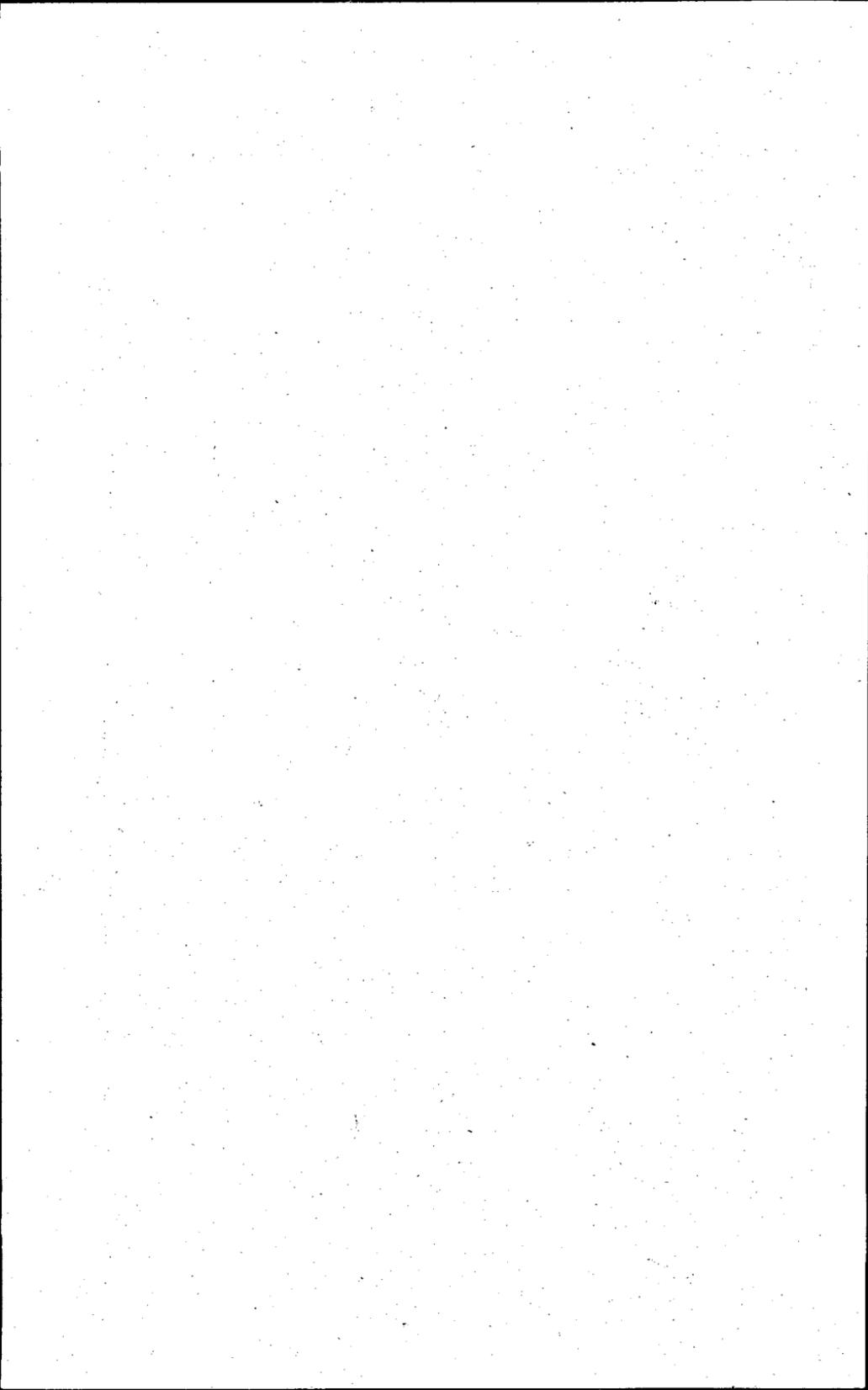


FROM THE OBSERVATORY HILL, CAMBRIDGE.
(Natural Size.)



A.C.H. del. ad nat.

FROM CHESTERTON GRAVEL PITS, CAMBRIDGE.
(Natural Size.)



XII. ON A FLINT IMPLEMENT FOUND AT BARNWELL,
CAMBS. Communicated by A. F. GRIFFITH, Esq.,
Christ's College.

[May 27, 1878.]

A FEW weeks ago a flint implement (herewith exhibited) was found in the gravel-pit at Barnwell by the workmen from whom I bought it. It is a very fine specimen of the "hache" type, its greatest length being $6\frac{3}{4}$ inches, its greatest breadth $3\frac{5}{8}$ inches, and thickness $2\frac{1}{8}$ inches. It corresponds closely with specimens in the Woodwardian Museum from Thetford in Suffolk and from Amiens.

The pit where it was found is in the well-known Barnwell river gravel, which contains a considerable number of bones of mammalia, including the Cave tiger (*Felis spelaca*), *Rhinoceros*, *Elephas primigenius* and *antiquus*, and *Hippopotamus*; and has in places a thin band of shells, amongst which *Unio littoralis*, and *Corbicula (Cyrena) fluminalis* are common. This band however is not found in the present pit, though it occurred in the old workings, 350 feet distant, on the other side of the Newmarket Road, in what was evidently the same gravel, but which is now closed.

The occurrence of a worked flint associated with these shells is, I believe, very unusual. At Menchecourt, in France, *Cyrena fluminalis* is found in the implement-bearing gravel, while I only know of a single instance of a worked flint found in England

associated with *Unio littoralis*. This was found in the brick-earth of Crayford, Kent, by the Rev. O. Fisher, in 1872¹.

This is perhaps the first time that evidence of man's existence has been brought to light in this gravel; the only other being of a doubtful nature, and consisting of a bone which appears to have been cut by man; it was described by Mr Seeley in his paper on the Fen Drifts in the Quarterly Journal of the Geological Society, and is now in the Woodwardian Museum.

A few palaeolithic worked flints have been found round Cambridge on gravel heaps. A specimen now in the Woodwardian Museum, was found by Prof. Hughes in gravel which came from the Observatory hill. Mr Fisher also has a small "hache" of somewhat the same type as that recently found at Barnwell, but only 3½ inches long and proportionately broad; this was found in gravel which came from the Chesterton pits.

With regard to the authenticity of the specimen, I may remark that when I got it it had been partially cleaned, but all the corners were full of the peculiar fine white gravel of the bed. I only gave one shilling for it, which goes to shew that the men found it on the spot, and did not buy it in the town, to sell it at a high profit in the pit.

A remarkable character of the weapon is that, while on one side and at the blunt end it is of the tawny yellow colour so common in palaeolithic flints from the gravel, on the other side it is much whitened, probably by the action of the infiltrated water.

The chief localities in the Ouse basin (of which Cambridge-shire forms a large part) in which palaeolithic implements have been found in any abundance are by the Ouse near Bedford and on the Little Ouse near Thetford. Mr Evans² gives a list of the genera of mammalia and mollusca whose

¹ Vide *Geological Magazine*, June, 1872.

² *Stone Implements*, p. 480.

remains have been found associated with the implements at Bedford, while Mr. Seeley¹ has given similar lists of those occurring in the Barnwell gravel. On comparing these we see that most of the genera occurring at Barnwell are represented in the Bedford deposits, the proportions being 13 out of 18 in the shells, and 6 out of 7 in the mammalia. A corresponding similarity exists between the implements, as may be seen from the figure which Mr. Evans² gives of an implement found at Biddenham near Bedford, which closely corresponds with the present specimen. These facts tend to prove that the two deposits are more or less contemporaneous. Probably the manufactories of the district were situated at Bedford and Thetford, where several hundred specimens have been obtained, while the single specimens that are occasionally found scattered about the fens and round Cambridge are such as have either been lost, or spoilt and then thrown away by their owners.

The antiquity of the deposit may be inferred by the presence of remains of the animals mentioned above, all of which became extinct in England before the historic period. At the surface in the pit where this implement was found there is a considerable thickness of soil in which many human skeletons have been found, most of the bodies having been interred in a sitting posture; these may therefore be referred to the Saxon period. Beneath this is found a layer of gravel from which I have obtained a very fine wolf's skull, a beaver's vertebra, with bones of a large swimming bird, probably goose, and other remains. Now the beaver has long been extinct in England, though it lingered on in Wales³ till the 12th century at least. Besides, the interments in the soil above could not have taken place till the additional four feet of surface-soil had been superimposed. Below this deposit we come upon nine or ten feet of a

¹ *Quarterly Journal of Geological Society*, Vol. xxii. p. 477.

² *Stone Implements*.

³ Owen's *British Fossil Mammals*, p. 199.

more ancient gravel, with remains of the large extinct mammals, and of two species of mollusca which are now extinct in England, one, the *Corbicula fluminalis*, not being found alive nearer than the Nile, while the *Unio littoralis* is still found in the rivers of France. The fact that two species of mollusca have become extinct since the time this gravel was deposited probably indicates a very great lapse of time, since these less specialised forms seem¹ to require a much longer space of time to disappear from any country by natural processes than the large mammalia, which from their higher organization adapt themselves less readily to new surroundings.

Among the many possible uses to which such implements as these may have been applied, one appears to have been overlooked. Many African tribes are in the habit of fixing some kind of spear-head into the heavy beam of a 'dead-fall' trap to make it more effective in killing the larger animals. Others, as related by Sir Samuel Baker², fix a spear-head into a very heavy short handle and drop it from a tree into the back of an animal passing underneath. Many of the river gravel implements would do well for either of these purposes.

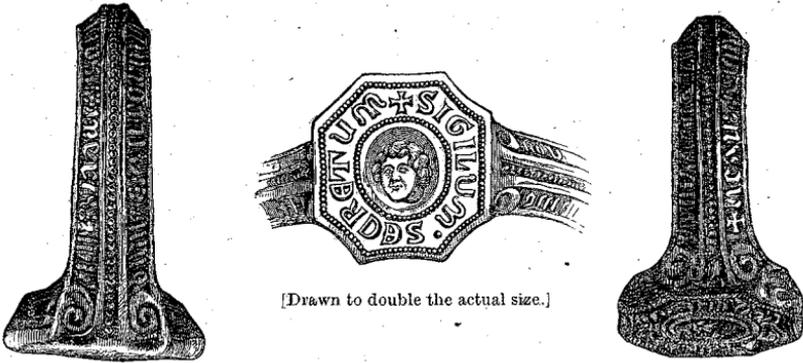
In the plate prefixed will be found figures of the three Cambridge implements mentioned in this paper, for the drawings of which I am indebted to the kindness of Mr A. C. Haddon, of Christ's College.

¹ Lyell's *Student's Elements of Geology*, p. 139.

² 'Ismailia,' p. 272.

XIII. - NOTICE OF A RING FOUND AT MONTPENSIER
AND SUPPOSED TO HAVE BELONGED TO THE BLACK
PRINCE. Communicated by EDW. HALLSTONE, Esq.,
Junr.

[May 27, 1878.]



THIS ring which has been kindly shewn to me by the Baron Jérôme Pichon, residing at 17, Quai d'Anjou, Paris, is a fine specimen of fourteenth century work; and as it has been assigned to the former possession of Edward, the Black Prince, claims the attention of English archæologists.

The castle of Montpensier, of which no traces now exist, stood at an elevation of 1456 feet above the level of the sea,

at no great distance from Aigueperse in the *arrondissement* of Riom, and the province of Auvergne. Here it was that in 1866 a young shepherdess was tending her flock, when her eyes lit upon something sparkling in the ground beneath her, near to what had evidently in days of yore served as one of the fosses of the château. The object proved to be a gold ring, beside which were traces of human bones. Not that the jewel lay exactly upon the surface of the ground, but that in lazily turning over the soil with the end of her crook, the shepherdess had displaced some four or five inches of earth. It is difficult to say how far what she asserted is true, viz., that within the ring there was a portion of a human finger-bone.

The ring itself is in very good preservation, weighs $\frac{1}{2}$ oz., and is $\frac{1}{2}$ inch in diameter: the signet is octagonal, set with an extremely fine ruby, what is called a "balais," upon which is cut a head, and around in the gold is SIGILLVM SECVRATVM. This head is nearly full face, round and chubby in appearance, and on the top has massive hair dressed in short small curls, and falling low down over the ears. Around the side of that part of the ring which forms the seal are a series of small shields, in which are inserted in relief the letters S^c.-GE-OR-GI-US. Around the ring itself in the hoop is in relief the beginning of a verse in Saint Luke's Gospel—JHSVS AVTΩM TRΩSISΩS PΩR ΩCΔIVΩ ILLORΩ IBAT ET VΩRBVΩ¹, &c.

So much for the description of the ring. At first it fell into the hands of M. Victorin Jusseraud, then Mayor of Montpensier, whose nephew, my friend M. Edward Jusseraud, of the War Office in Paris, drew my attention to it, and kindly procured me an introduction to the Baron Pichon. This nobleman, already known for his collections of objects of *virtù*, purchased the jewel of Monsieur Victorin Jusseraud in 1877 and it is now deposited in the company of many other mag-

¹ Sc. CΩRO . FΩCIVΩ . CΩT.

nificent rings in his collection. To these gentlemen we owe a debt of thanks.

Three notices (of which I have freely availed myself) have been already published concerning this discovery of the shepherdess. I. In the *Compte-rendu de l'association française pour l'avancement des sciences*, 5^e Session, held at Clermont Ferrand in 1876, p. 658, by Monsieur Michel Cohendy, archiviste du Puy de Dôme, &c., &c. II. In the *Compte-rendu des séances (1876—1877) de la société du musée de Riom*, p. 42, also by M. Cohendy: and III. in the *Academia Española*, tome I. Part I., p. 9, by Señor Don F. M. Tubino.

In former times the castle of Montpensier had been a place of considerable importance. It was here that Louis VIII., the husband of Blanche of Castille and father of Saint Louis, rested on his return from the war against the Albigenses, and died on Nov. 28, 1226. Proof of this is given by a charter in which King Philip III., when ratifying a deed of foundation in favour of the Abbey of St André de Clermont, reminds the monks that the heart and entrails of the king, his uncle, had been transferred from the castle of Montpensier to the above-mentioned monastery. At that time Guichard de Beaujeu was possessor of this fief. His son Humbert was constable of the castle, and accompanied Saint Louis in his crusades, assisting at the battle of Massora in 1250, and at the siege of Tunis in 1270. At the end of the fourteenth century Jean duc de Berry et d'Auvergne was lord and master.

It is quite possible that the ring was entrusted as a pass or safe-conduct to one of those English generals who concentrated their forces and then spread them over the provinces of Guienne, Gascony and Auvergne. They marched forward to oppose the army of King John of France at the time when Edward III. had espoused the cause of Charles of Navarre. The passage of the English troops is thus described by Froissart (*ed. Luce*. Vol. v.):—*Li princes de Galles et se route, ou bien avait deux*

mil hommes d'armes et six mil archiers, chevaucoient à leur aise et recouvroient de tous vivres a grand faison; et trouvoient le pays d'auvergne où ja il estoit entré et avalé, si gras et si raempli de tous biens, que merveilles seroit à considérer. Mais comme plentiveus que il le trouvaissent il ne voloient mies entendre ne arrester a cou; ançois voloient guerrier et grever leurs ennemis. Si ardoient et essilloient le pays tout devant yaus et environ. Et quant il estoient entré en une ville et il le trouvoient raemplie et pourveue largement de tous vivres et il si estoient refreschi deux jours ou trois et il s'en partoient il essilloient le demorant et effondroient les tonniaus plains de vins et ardoient bleds et avainnes afin que leur ennemi n'en euissent aise; et puis si chevaucoient avant. Et tout dis trouvaient il bon pays et plantiveus," &c. Thus far Froissart. From Lemerre's "Histoire du moyen âge" we learn that the Black Prince feeling that his troops were too few and too badly provided with food and material of war, offered to abandon his former conquests, his booty and his captives, and cease to bear arms against his suzerain for seven years. A demand was then made that he should render himself up as a prisoner of war together with a hundred of his knights. This proposal rendered battle inevitable. The English now reduced to 8,000 men fortified themselves in the plain of Maupertuis a few leagues from Poitiers. Famine prevailed in their camp, and they could easily have been starved out: John on the other hand was eager for battle and felt certain of victory, seeing that he was in command of 16,000 men. It is needless to recount the details of the combat, fought on Sept. 19, 1356. The French were entirely routed, leaving as many as 11,000 men lying dead upon the field. John and his son Philip fought bravely throughout, the former receiving three wounds, and both were taken prisoners. The royal captives were conducted in triumph to London. After the peace of Bretigny John returned to France, but subsequently he made an expedition, it is said on a love affair, to London, and died in the Savoy, April 8, 1364.

It is to this period of history that M. Cohendy assigns the ring under our notice, and gives the following reasons for thinking that it once belonged to the Black Prince.

I. The cast of countenance and the form of the hair is like the type found on the coins of Ed. III. and more particularly the nobles.

II. The coincidence of the words found on the reverse of these nobles: $\text{I} \text{Æ} \text{S} \text{V} \text{S} \text{ } \text{A} \text{V} \text{T} \text{Æ} \text{Ω} \text{ } \text{T} \text{R} \text{Ω} \text{N} \text{S} \text{I} \text{Æ} \text{N} \text{S} \text{ } \text{P} \text{Æ} \text{R} \text{ } \text{Ω} \text{Æ} \text{D} \text{I} \text{V} \text{Ω} \text{ } \text{I} \text{L} \text{L} \text{O} \text{R} \text{V} \text{Ω} \text{ } \text{I} \text{B} \text{T} \text{T} \text{ } \text{Æ} \text{T} \text{ } \text{V} \text{Æ} \text{R} \text{B} \text{V} \text{Ω}$, &c.

III. The presence of a rose marking the intervening spaces between the words.

IV. The letters, S^o Georgius, as given above, Saint George being the patron saint of England.

V. The elegance and richness of the bijou, (an exceptional work of art for the time when it was made) suggests that it could only have been the property of some great and illustrious personage.

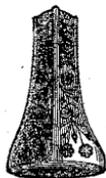
Now in reply to all this we would by no means say that the ring was never the property of the Black Prince, but we simply suggest a verdict of "not proven." The expression *sigillum secretum* or privy seal is, as is well known, by no means confined to illustrious personages as M. Cohendy seems to think. It is used in contradistinction to the "seal of office." Thus in monastic documents we find the conventual seal and the private seal of the abbot or prior, but in the same documents we find the seal of quite poor and unimportant people also bearing the words *sigillum secretum*. The head is undoubtedly like that on the coins of Edward III. both in face and form. The manner of wearing the hair may or may not be the same as on the money of that period.

The legend $\text{I} \text{Æ} \text{S} \text{V} \text{S} \cdot \text{A} \text{V} \text{T} \text{Æ} \text{Ω}$, &c., was, as we know from

Maundeville (page 11, ed. Halliwell, 1839), a common charm for travellers.

Again, it is quite possible to imagine the device marking the intervening spaces between each word to be a rose, but it is by no means positively clear that this is the case: and even so the *rose* did not become a party-badge until the following century. The best argument however in favour of its having belonged to an English general of high rank is the name of England's patron saint, St George; while at the same time the extreme richness of the workmanship and the fineness and purity of the ruby make it conceivable that the owner was a man of high rank. Thus although, on the one hand, it may have belonged to the Black Prince, on the other, there are equal grounds for supposing that it was owned by one of his followers; and if it be true, as the shepherdess asserted, that there were remains of a finger within the circle of the ring, it would seem suggestive of an idea that the knight, who wore it when on some delicate and confidential mission, was attacked before the earthworks of Montpensier and paid the penalty of his temerity with his life.

Of this same period, the signet-ring of Charles V. of France is set with a fine ruby, and decorated with similar roses on the shank, as is seen in the following woodcut taken, by the kind permission of the author, from King's *Antique Gems and Rings*, vol. I. page 397, (London, 1872).



[Actual size.]



