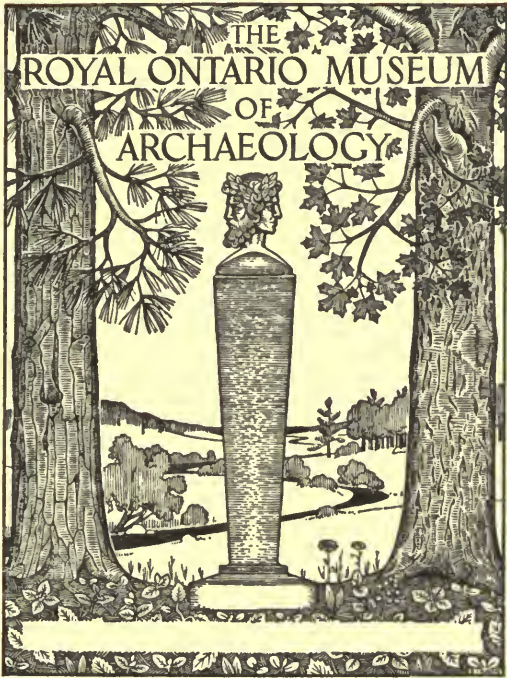


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EDITED BY

JOHN EVANS, D.C.L., LL.D., TREAS.R.S., F.S.A.,
W. S. W. VAUX, M.A., F.R.S.,

AND

BARCLAY V. HEAD, M.R.A.S.,

ASSISTANT-KEEPER OF COINS, BRITISH MUSEUM; CORRESPONDING MEMBER OF THE
IMPERIAL GERMAN ARCHÆOLOGICAL INSTITUTE.

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PROCEEDINGS OF THE NUMISMATIC SOCIETY.

SESSION 1881—1882.

OCTOBER 20, 1881.

JOHN EVANS, Esq., D.C.L., LL.D., F.R.S., President, in the
Chair.

The following presents were announced and laid upon the
table:—

1. G. Schlumberger. Deux Chefs Normands des Armées
Byzantines au XI^e siècle. Paris, 1881. From the Author.

2. E. Thomas, F.R.S. The Revenues of the Mughal Empire
in India. From the Author.

3. Bulletino dell' Istituto di corrispondenza archeologica.
Nos. 5—10, 1881. From the Institute.

4. Revue Belge de Numismatique. 3^e and 4^e livraisons, 1881.
From the Society.

5. The Canadian Antiquarian and Numismatic Journal.
April, 1881. From the Society.

6. Bulletin de la Société de Borda (Dax). 2^e and 3^e liv.,
1881. From the Society.

7. The Coins of the Sikhs. By C. J. Rodgers, Esq. From
the Author.

8. A Tabula honestæ missionis relating to Britain, discovered
near Liège. By C. Roach Smith, Esq., F.S.A. From the
Author.

9. Journal of the Royal Asiatic Society. N.S., Vol. xiii., Pt. IV. From the Society.

10. Journal of the Royal Historical and Archæological Association of Ireland. Nos. 44, 45. From the Association.

11. Bulletin de la Société des Antiquaires de l'Ouest. 2^e trimestre, 1881. From the Society.

12. Journal of Hellenic Studies. Vol. ii., No. 1. Text and Plates. From the Society for the Promotion of Hellenic Studies.

13. Royal Irish Academy. Proceedings. (Polite Literature and Antiquities, Vol. ii., Ser. II.; Science, Vol. iii., Ser. II.) Transactions. (Polite Literature and Antiquities, Vol. xxvii., Pt. IV.; Science, Vol. xxviii., Pt. I.) From the Academy.

14. C. A. and R. Serrure. Bulletin mensuel de Numismatique et d'Archéologie. From the Authors.

15. Bulletin Historique de la Société des Antiquaires de la Morinie. Livraisons 117, 118. From the Society.

16. Les Monnaies Génoises de Kaffa. By M. le Baron de Koehne. From the Author.

17. Smithsonian Institute. Annual Report, 1879. From the Institute.

18. Aarbøger for Nordisk Old-kyndighed og Historie, 1880. From the Society of Northern Antiquaries.

19. Zeitschrift für Numismatik. Bd. viii., Heft 4, 1881. From the Editor.

20. Le Moniteur de la Numismatique et de la Sigillographie. Pts. I. and II., 1881. From the Editor.

The President exhibited a penny of the second coinage of Henry VII., struck at Canterbury.

A unique copper coin of Shams ud Dunya wa ud Din Mahmud Shah was exhibited by Mr. Charles J. Rodgers. This coin is dated A.H. 718, and was struck at Delhi; and Mr. Rodgers supposes it to have been either issued by the usurper Wafa Beg during the absence of Kutb ud Din Mubarak Shah on an expedition to Deogur, or by those who disliked the rule of Wafa

Beg, in order that they might show it to the King and accuse Wafa Beg of the assumption of regal functions.

Mr. Henry S. Gill exhibited a very rare penny of Alexander II. of Scotland, struck at Forres.

Mr. Durlacher exhibited a specimen of the new Afghan medal, 1878—80, having the portrait of her Majesty on the obverse, and on the reverse a company of troops on the march headed by an elephant, with rider, and bearing a cannon.

Mr. Bieber exhibited a very rare medal of Henry VIII., with the King's bust on one side and on the other the portcullis. This medal appears to be of the time, and of German work.

Mr. Webster exhibited several very rare Anglo-Saxon and English coins, among which was a penny of Eadwig, struck at London, one of two specimens known, and another of Eadgar, struck at Newport.

A paper was then read on "A Medal of Charles V. of Spain by Giovanni Pomedello," by Mr. T. Whitcombe Greene. It is printed in the Third Series, Vol. i., p. 334.

Mr. Toplis communicated a notice of a find at Newark, in June last, of coins of Henry III., struck at London and Canterbury. See Vol. i., p. 308.

Mr. Warwick Wroth read a paper on "The Cultus of Asklepios at Pergamon, as illustrated by the Coinage of that City from B.C. 400 to A.D. 268." See Vol. ii., p. 1.

NOVEMBER 17, 1881.

JOHN EVANS, Esq., D.C.L., LL.D., F.R.S., President, in the
Chair.

Mrs. Bagnall-Oakeley, E. K. Burstal, Esq., W. Dawson, Esq., John Jennings, Esq., W. Lees, Esq., and J. Doyle Smith, Esq., were elected members.

The following presents were announced and laid upon the table:—

1. Bulletin historique de la Société des Antiquaires de la Morinie. Livraison 119. From the Society.

2. Christiani Schlegelii de nummis antiquis Gothanis Cygneis, Coburgensibus, Vinariensibus, et Merseburgensibus Dissertatio. Francof. et Lips., 1717. From J. W. Trist, Esq.

Mr. Krumbholz exhibited proofs in silver of the Prussian silver coinage of 1867, a Roumanian marka of 1874, a re-struck Brazilian dollar, and a specimen of the Hamburg Jubilee medal of 1803.

Mr. J. J. Nunn exhibited a groat of Henry VI. with a mark resembling the Arabic numeral 4 after the King's name.

Mr. Vaux exhibited a gold medal bearing the name of the Society for the Translation of Oriental Literature, which he supposed to have been presented by William IV. to Prof. H. H. Wilson.

Canon Pownall exhibited, on behalf of Dr. Frazer, of Dublin, two base testoons of Edward VI., one with the mint-mark on both sides, a harp, 1552, found in Ireland; the other, very rare, with the lion mint-mark. The first of these coins is counter-marked with the greyhound, according to the proclamation of Elizabeth (September 27th, 1560). Canon Pownall also exhibited three base testoons of Edward VI. from his own cabinet, one having the bolt mint-mark, 1549, counter-marked with a porteullis, as ordered by a subsequent proclamation of Queen Elizabeth (October 9th, 1560), and two with the harp mint-mark and Lombardic lettering, weighing respectively 67 and 53.5 grs. These have been submitted to assay by Messrs. Johnson, Matthey, & Co., of Hatton Garden, and found to contain no silver in any appreciable quantity, and to consist chiefly of tin and copper. With reference to these coins Canon Pownall quoted an extract from King Edward's diary, under date June 10th, 1552, as follows:—"Whereas it was agreed [*i.e.* on May 18th above] that there should be a pay now made to Ireland of £5,000, and then the money to be cried down, it was appointed that 3,000 weight which I had in the Tower should be carried

thither and coined at three denar fine, and that incontinent the coin should be cried down." Canon Pownall remarked that if his Majesty did not mistake as to his "three denar fine," this was a coinage infinitely more base than any ever before devised, three parts only in 240 (according to the usual mode of estimating the fineness of silver by the pound weight) being fine, but that, whatever may have been the fineness of the coins, the manner of conducting the transaction was highly disgraceful.

Mr. W. Bramsen read a paper on Japanese iron money, in which he traced the history of the coinage of Japan from A.D. 708 to the present time. See Num. Chron., Vol. ii. p. 342.

DECEMBER 15, 1881.

JOHN EVANS, Esq., D.C.L., LL.D., F.R.S., President, in the Chair.

The following gentlemen were elected as honorary members of the Society:—H. Dannenberg, E. Hucher, G. Schlumberger, and Professor W. Tiesenhausen.

The following presents were announced and laid upon the table:—

1. Zeitschrift für Numismatik. Band ix., Heft 2. From the Editor.
2. Numismatische Zeitschrift. Band xiii., 1st semester. From the Society.
3. Monatsbericht der K. Preussischen Academie der Wissenschaften. Feb.—Oct., 1881. From the Academy.
4. Bulletin de la Société des Antiquaires de l'Ouest. 3^e trimestre, 1881. From the Society.
5. Head-dresses exhibited on ancient coins. By H. Phillips, Junior. From the Author.

Mr. R. A. Hoblyn read a paper, communicated by Mr. W. C. Homersham, "On the Groats with the profile of Henry VIII., and, on the reverse, the inscription POSVI DEV' ADIVTORE'

MEV'." One of these groats bore the legend incorporating the title of "King of Ireland," which, according to the generally received opinion, was only adopted simultaneously with the full-face bust, which, on the groats of this King, superseded the profile.

Mr. B. V. Head read a paper on the chronological sequence of the coins of Bœotia, in which he gave a sketch of the origin of the coinage in that district in the sixth century B.C., and traced it through its successive phases down to the time of the Roman conquest of Greece. The paper is printed in Vol. i., p. 177.

JANUARY 19, 1882.

JOHN EVANS, Esq., D.C.L., LL.D., F.R.S., President, in the
Chair.

The following gentlemen were elected as members of the Society:—H. Montagu, Esq., A. Peckover, Esq., H. Phillips, Esq., F. W. Pixley, Esq., and A. B. Richardson, Esq., F.S.A., Scot.

The following presents were announced and laid upon the table:—

1. The Journal of Hellenic Studies. Vol. ii., No. 2. Text and Plates. From the Society.
2. Revue Belge de Numismatique, 1882. 1^e livraison. From the Society.
3. Annuaire de la Société Française de Numismatique, 1882. 1^e trimestre. From the Society.
4. The Canadian Antiquarian and Numismatic Journal. Vol. x., No. 2. From the Society.
5. The American Numismatic and Archæological Society of New York. Proceedings at the Annual Meeting, March 15th, 1881. From the Society.
6. Separate copies of four papers contributed in 1880 to the Numismatic and Antiquarian Society of Philadelphia, and of

four papers contributed to the American Philosophical Society. By H. Phillips, Esq., Junior.

7. American Philosophical Society. Proceedings at the Dinner commemorative of the Centennial Anniversary of the incorporation of the Society. March 15th, 1880.

Mr. Evans exhibited a "Hog-money" shilling of the Bermuda or Sommers Islands.

Major A. B. Creeke exhibited a styca in silver of Ulfhere, Archbishop of York, A.D. 854—895. This coin bears the name of a moneyer, which appears to be that of Eadwulf somewhat blundered.

Mr. Pearson exhibited a small brass coin purporting to be of the Emperor Procopius, with the inscription SOLI INVICTO COMITI, struck at Trèves, but probably in reality a coin of Constantine altered.

Mr. Evans read a paper on a hoard of Roman silver coins lately discovered by some workmen engaged in digging a railway cutting near Nuneaton. The coins represented in this "find" ranged from the time of Vespasian to that of Marcus Aurelius. See Vol. i., p. 310.

Dr. A. Smith contributed a paper on the Irish coins of Richard II. See Vol. i., p. 306.

FEBRUARY 16, 1882.

W. S. W. VAUX, Esq., F.R.S., Vice-President, in the Chair.

W. J. Andrew, Esq., J. Ashtell, Esq., J. E. Backhouse, Esq., E. Leggett, Esq., and C. W. C. Oman, Esq., were elected members of the Society, and M. Gustave Schlumberger, honorary member, was elected as an ordinary member.

The following presents were announced and laid upon the table:—

1. Anglo-Saxon Coins in the Royal Swedish Cabinet of Medals at Stockholm. By M. Bror E. Hildebrand. Stockholm, 1881. From the Author.

2. Société des Antiquaires de la Morinie, Cartulaire de l'Église de Téroüane. Publié par Th. Duchet and A. Giry. St. Omer, 1881. From the Society.

3. The same. Bulletin Historique. 30^e année, N.S., 120^e livraison. From the Society.

4. The Journal of the Royal Asiatic Society. N.S., Vol. xiv., Pt. I. January, 1882. From the Society.

5. Un mobilier Funéraire servant à établir le passage de l'âge de pierre à l'âge de bronze. By M. le Dr. Noulet. From the Author.

6. The fret or key ornament in Mexico and Peru. By R. P. Greg, Esq., F.S.A. From the Author.

Canon Pownall exhibited an impression of an Irish Waterford halfpenny of King John, now in the library of the Royal Society of Antiquaries, Dublin, and believed to be unique. This coin has on the reverse the cross pommée instead of the ordinary cross, a fact which tends to confirm the attribution to John of the coins with the cross pommée, of the short-cross class, in the English series. See Vol. ii., p. 125.

M. Terrien de la Couperie contributed a paper on the silver coinage of Tibet. See Vol. i., p. 340.

MARCH 16, 1882.

JOHN EVANS, Esq., D.C.L., LL.D., F.R.S., President, in the Chair.

The following presents were announced and laid upon the table:—

1. The Coins of the Jews, being Vol. ii. of the Numismata Orientalia. By F. W. Madden, M.R.A.S. From the Author.

2. The Journal of the Royal Historical and Archæological Association of Ireland. 4th Series, Vol. v., 1881. From the Society.

3. Batty's Copper Coinage of Great Britain, &c. Vol. ii., Parts 24—26. Manchester, 1880. From the Author.

4. Report of the Proceedings of the Numismatic and Antiquarian Society of Philadelphia for 1881. From the Society.

5. Bulletins de la Société des Antiquaires de l'Ouest. 4^{me} trimestre, 1881. From the Society.

6. Mémoires of the same. Vol. iii., 1880. From the Society.

7. Bulletin des Procès Verbaux de la Société d'Emulation d'Abbeville, 1877—80. From the Society.

8. Philologische Wochenschrift. 1st year, 1st quarter, 1881. From the Editors.

9. Foreningen til Norske Fortidsmindesmerkers Bevaring. Aarsberetning for 1880, together with Kunst og Haandverk for Norges Fortid. Heft 1. From the Society.

Mr. H. Montagu exhibited some half-crowns of Edward VI. and crowns of Charles I. and Cromwell in remarkably fine preservation; also a counterfeit sterling struck by John of Hainault, found at Worsted, in Norfolk.

Mr. Evans read a paper on a hoard of early Anglo-Saxon coins found near Delgany, co. Wicklow, in 1874, consisting of silver pennies of Eadbeorht, Cuthred, and Baldred, kings of Kent, A.D. 794—823; of Offa, Coenwulf, Ceolwulf, and Beornwulf, kings of Mercia, 757—824; of Egbert, sole monarch; of various Archbishops of Canterbury; and of one coin of Pope Leo III., 795—816. See Vol. ii., p. 61. The writer remarked that this was the most essentially Kentish hoard of which we have any record. A discussion followed, in the course of which Mr. Vaux remarked that the Irish *provenance* of these Kentish coins shed an entirely new light on the early history of England. Mr. B. V. Head concurred with Mr. Evans in his attribution of the Papal coin found with this hoard to Leo III. rather than to Leo VIII., to whose pontificate the few coins known of this type have been hitherto classed.

Mrs. Bagnall-Oakeley communicated a paper on the hoards of Roman coins which have been from time to time discovered in the Forest of Dean, Gloucestershire, chiefly in the vicinity of

ancient iron mines, the coins having been, perhaps, intended for the payment of the miners' wages. See Vol. ii., p. 52.

Mr. Stanley Lane-Poole communicated a letter which he had received from M. H. Sauvairé on some rare or inedited Oriental coins in the collection of M. Ch. de l'Ecluse. See Num. Chron., Vol. ii., p. 327.

APRIL 20, 1882.

JOHN EVANS, Esq., D.C.L., LL.D., F.R.S., President, in the Chair.

J. G. Hall, Esq., was elected a member of the Society.

The following presents were announced and laid upon the table:—

1. The Journal of the Royal Asiatic Society. N.S., Vol. xiv., Pt. II. From the Society.

2. *Annuaire de la Société Française de Numismatique et d'Archéologie*, 1882. 2^{me} trimestre. From the Society.

3. *Revue Belge de Numismatique*, 1882. 2^e livraison. From the Society.

4. The Journal of the Royal Historical and Archæological Association of Ireland. Vol. v., 4th Series, No. 47. From the Association.

5. *Bulletin de la Société de Borda (Dax)*, 1882. 1^{er} trimestre. From the Society.

6. The Canadian Antiquarian and Numismatic Journal. Vol. x., No. 3, 1882. From the Society.

Mr. Evans exhibited a large brass coin of Antoninus Pius, with the inscription on the reverse S.P.Q.R. A[nnum] N[ovum] F[austum] F[elicem] OPTIMO . PRINCIPI . PIO. This coin was in a remarkably fine state of preservation, the reverse resembling a medallion rather than a large brass coin. Mr. Evans also exhibited a rare half groat of Henry VIII., with the reverse in-

scription REDD [E] CVIQ[VE] Q[V]OD SVVM EST, with the Bow mint-mark, a coin which is not to be found in Hawkins's work.

Mr. Pixley brought for exhibition a shilling of George IV. of 1820, with the rose, shamrock, and thistle.

Mr. Burstal exhibited a penny of Henry I., of the "Pax" type, and one of Stephen with the obverse die defaced by a large cross.

Mr. Krumbholz exhibited a selection of five thalers, a double thaler, and a gold ten-ducat piece of Leopold I. of Hungary, 1656—1705.

Mr. W. Wroth read a paper on figures of Apollo holding the Æsculapian serpent-staff, with especial reference to the occurrence of this type on a sestertius of Galba and on an aureus of Caracalla. See Num. Chron., Vol. ii., p. 301.

Mr. Evans read a paper on a find of 400 Roman denarii, ranging from the time of Commodus to that of Philip II. This hoard was lately discovered in Lime Street. Mr. Evans supposed it to have been buried about B.C. 248. See Vol. ii., p. 5.

Dr. A. Smith communicated a paper on some Anglo-Saxon coins found in Ireland, of the reigns of Edward the Elder and Athelstan. See Vol. ii., p. 103.

MAY 18, 1882.

JOHN EVANS, Esq., D.C.L., LL.D., F.R.S., President, in the Chair.

T. Bliss, Esq., and E. Freshfield, Esq., were elected members of the Society.

The following presents were announced and laid upon the table:—

1. The Journal of the Royal Historical and Archæological

Association of Ireland. 4th Series, Vol. v., No. 48. From the Association.

2. The Books of Chilan Balam. By D. G. Brixton, M.D. From the Author.

3. Sceaux en Plomb de Chefs des Manglavites impériaux à Byzance. By G. Schlumberger. From the Author.

4. Éloge de M. de Saulcy. By G. Schlumberger. From the Author.

5. Trésor de Jublains. By E. Hueber. From the Author.

6. Bulletin Historique de la Société des Antiquaires de la Morinie. N.S., 121^e livraison. From the Society.

7. The Canadian Antiquarian and Numismatic Journal. April, 1882. From the Society.

Mr. J. G. Hall exhibited a four-ducat piece of Ferdinand and Isabella of Spain (1474—1504) struck at Segovia (Heiss, "Mon. Hisp. Christ.," i. pl. 20, fig. 60); also a denier of Stralsund, *obv.* MONETA SVNDENSIS and a broad arrow, *rev.* DEVS IN NOMINE TVO and a cross patée.

Mr. H. Montagu exhibited a proof in silver of the gold broad piece of Oliver Cromwell, also a rare half-groat of Edward III. with an annulet at the point of the tressure on each side of the King's head.

Mr. F. W. Pixley exhibited a copper coin of the North Borneo Company struck in the present year.

Mr. C. J. Rodgers exhibited nine silver coins of Cashmere bearing the names of different kings, but all dated in the year 842, the reason for which Mr. Rodgers was unable to explain.

M. J. P. Six communicated a paper on a unique silver stater of Cyprus, struck in the names of two kings, Nicocles and Demonicus, sons of Euagoras I., B.C. 410—374. On the obverse is a seated figure of Zeus, and on the reverse a goddess holding a patera and a branch. M. Six supposed this figure to have been copied from the famous colossal statue of Nemesis by Agoracritus, a pupil of Phidias, preserved in the temple of Nemesis at Rhamnus, in Attica, on the site of which the head

and some other fragments were discovered and are now to be seen in the British Museum. See Vol. ii., p. 89.

Mr. C. J. Rodgers communicated a paper on some coins of Nadir Shah struck in India. See Num. Chron., Vol. ii., p. 319.

Mr. J. F. Neck read a paper on a hoard of coins of Edward I. discovered at Northampton, in which he also made some remarks on the coinage of Edward II. and Edward III. See Vol. ii., p. 108.

JUNE 15, 1882.

ANNIVERSARY MEETING.

JOHN EVANS, Esq., D.C.L., LL.D., F.R.S., President, in the Chair.

The Minutes of the last Anniversary Meeting were read and confirmed.

H. P. Blackmore, Esq., M.D., was elected a member of the Society.

The Report of the Council was then read to the Meeting as follows :—

GENTLEMEN,—The Council again have the honour to lay before you their Annual Report as to the state of the Numismatic Society.

With great regret they have to announce their loss by death of the four following members :—

W. Bramsen, Esq.

H. W. Henfrey, Esq.

M. Aurelio Prado y Rojas.

Samuel Sharpe, Esq.

also of our illustrious honorary member,

Monsieur Adrien de Longpérier.

By resignation the Society has lost the following four members :—

R. F. W. Brandt, Esq.
 Lord Edward Spencer Churchill.
 Charles Golding, Esq.
 General Hyde.

The following gentlemen have also ceased to belong to the Society :—

J. Lord, Esq.
 H. Mott, Esq.

On the other hand the Council have much pleasure in recording the election of twenty-one ordinary and three honorary members :—

Ordinary Members.

W. J. Andrew, Esq.	W. Lees, Esq.
J. Ashtell, Esq.	E. Leggett, Esq.
J. E. Backhouse, Esq.	H. Montagu, Esq.
H. P. Blackmore, Esq., M.D.	Mrs. Bagnall-Oakeley.
T. Bliss, Esq.	C. W. C. Oman, Esq.
E. K. Burstal, Esq.	A. Peckover, Esq.
W. Dawson, Esq.	H. Phillips, Esq.
E. Freshfield, Esq., M.A., V.P.S.A.	F. W. Pixley, Esq.
J. G. Hall, Esq.	A. B. Richardson, Esq., F.S.A., Scot.
J. Jennings, Esq.	J. Doyle Smith, Esq.

Monsieur G. Schlumberger.

Honorary Members.

Herr H. Dannenberg.
 Monsieur E. Hucher.
 Professor W. Tiesenhausen.

According to our Secretary's Report our numbers are, herefore, as follows :—

	Ordinary.	Honorary.	Total.
June, 1881	199	35	234
Since elected	21	3	24
	<hr/>	<hr/>	<hr/>
	220	38	258
Deceased	4	1	5
Resigned	4	—	4
Erased	2	—	2
	<hr/>	<hr/>	<hr/>
June, 1882	210	37	247
	<hr/> <hr/>	<hr/> <hr/>	<hr/> <hr/>

The Treasurer's Report was then read to the Meeting, by which it appeared that the balance in hand on June 15th was £173 12s. 8d.

The President then delivered the following address :—

I have already on so many occasions congratulated this Society at its anniversary meeting upon its material prosperity and its intellectual activity, that it would be almost a repetition of what I have already said, were I to do more than refer with some degree of satisfaction to the Report of the Council which you have just heard read. Not the least gratifying part of it is that which records the increase in the number of our ordinary members from 199 to 210. It seems to me that I shall do better with what little time I have at my command if I devote it to bringing before you, in a short and comprehensive notice, the various topics which have engaged our attention at the meetings held during the past year, and the different subjects to which the pages of the "Numismatic Chronicle" have been devoted. I believe that a summary of our work, such as on former occasions I have attempted to give, has been found of some service, not only to the numismatists of our own country, but to those of other lands, who are desirous of seeing what progress has been made in a department of knowledge which ranges over so wide a field.

In ancient numismatics the longest, and if it is not invidious to say so, the most important Paper that we have had before us is that by one of our Secretaries, Mr. Barclay V. Head, on the Chronological Sequence of the Coins of Bœotia. The lines upon which a scientific arrangement of this interesting series of coins must be based, had, it is true, been laid by our distinguished honorary member, Dr. Imhoof Blumer, but Mr. Head has attempted to arrange their sequence in a still more strict chronological order, and has divided the eight centuries over which the coinage extends into sixteen historical periods. The difficulties of reducing the coins of a series of this kind into their true chronological relations, are enhanced in the present instance by the simplicity of form which characterizes the principal type of the obverse, the well-known Bœotian shield. Commencing with the towns of Thebes, Haliartus, and Tanagra, the coinage with this type subsequently extended to Acræphium, Coroneia, Mycalessus, and Pharæ: Orchomenos alone standing out from this confederacy of towns, and striking only the smaller denominations of coins with the type of a sprouting grain of corn, symbolical of the fruitfulness of her soil. Later on, after the middle of the fifth century B.C., after the temporary ascendance of the Athenians over Bœotia, the Thebans obtained the predominance, and the fine series of coins with the Herakles types begins. The alliance with Athens, the war with Sparta, the dissolution of the Bœotian confederacy, which restored autonomy to so many of the towns whose coinage had been in abeyance, seem all to have influenced the numismatic history of the country. But for all such details and for the later features of the coinage, the Paper itself must be consulted. The autotype plates will be found of almost equal value to an inspection of the coins themselves, in illustrating the different phases of the coinage.

Another important memoir is that by Mr. Bunbury, on some unpublished coins of Athens, and one of Eleusis. Nearly a quarter of a century has elapsed since the publication of M.

Beulé's great work, "Les Monnaies d'Athènes," and, as might have been anticipated, some varieties with which he was unacquainted have been brought to light by modern researches. Some remarkable tetradrachms of archaic character are figured by Mr. Bunbury, as well as some of the later type, including one bearing the name of Mithradates, the King. A list of about forty coins unknown to M. Beulé proves what a valuable supplement to his work is to be found in this paper. The small coin of Eleusis described by the author bears upon it the vase which occurs on some of the copper coins of Athens, and which has been recognised by M. Beulé as the *plemochoe* employed in the sacred rites on the last day at the mysteries of Eleusis, an attribution which this coin of Eleusis itself confirms.

Prof. Gardner has communicated to our pages a translation of that important part of the *Onomasticon* of Julius Pollux which deals with the coinage of ancient Greece. Although it was not until the latter half of the second century after Christ that the *Onomasticon* was compiled, its author, whose home was at Athens, had access to a number of works by earlier writers which have now perished, and though he may not always have apprehended the exact meaning of the passages he has quoted, there can be no question as to the importance of his essay on money. It is now, I believe for the first time, presented to the reader in an English form, while the notes added by Prof. Gardner enhance its original value.

Those interested in Greek numismatics will be much indebted to Mr. Warwick Wroth for the two communications which he has made to the Society, of which as yet one only has been published in the *Chronicle*. This relates to Asklepios and the coins of Pergamon, and in it the author has traced the development of the cultus of the health-giving God, as well as the sequence of the coins struck in the city which of all others appears to have been most devoted to his worship. By no means the least interesting of these are the Imperial coins, and

especially those which seem to bear so close a reference to the visit of Caracalla to the shrine of Æsculapius at Pergamon, of which a record is preserved by Dion Cassius.

Mr. Wroth's second paper is on a somewhat kindred subject, viz., on coins with the figure of Apollo holding the Æsculapian serpent-staff, of which type notable instances are found on a sestertius of Galba and an aureus of Caracalla. A small medallion of Antoninus Pius, with an analogous type on the reverse, formed the subject of some remarks of my own in an early volume of the Chronicle.¹

Our distinguished foreign member, M. Six, of Amsterdam, has communicated to us an important paper; not, indeed, on any coin preserved in any foreign collection, but on a remarkable coin in our own national cabinet. It is a silver stater of Cyprus, hitherto unique, and bearing upon it the names of two kings, Nicocles and Demonicus, sons of Evagoras I., so that it dates about four centuries before Christ. It is now some thirty years since the Duc de Luynes published his "Numismatique et Inscriptions Cypriotes," since which time some further progress has been made in the absolute determination of the value of the various and complicated characters which constitute the Cypriote alphabet, so that the attribution of this stater to Nicocles and Demonicus may apparently be relied on. The types differ materially from those of the coins already ascribed by Borrell,² which present the turreted head of Venus and the laureate head of Apollo. On that now under consideration there is on the obverse a seated figure of Zeus, unfortunately much injured; and on the reverse a draped female figure, standing, holding a patera and a leafy branch. This figure is of singular grandeur, and is supposed by M. Six to have been copied from the famous colossal statue of Nemesis, sculptured

¹ N.S. vol. vii. p. 1.

² Notice sur quelques Médailles grecques des Rois de Chypre, 1836, p. 32.

by Agoracritus, a pupil of Phidias. What adds to the interest of this suggestion is that the head and some other fragments of the statue which was originally placed in the temple of Nemesis at Rhamnus, in Attica, are now in the British Museum, where also is this unique numismatic reproduction of the statue.

The papers relating to Roman numismatics have been of less importance than those relating to the Greek coinage, and have all consisted of notices of finds of coins in Britain. One of our lady members, Mrs. Bagnall-Oakeley, has supplied us with interesting particulars of various hoards of coins found among the traces of Roman mining operations in the Forest of Dean; and I have myself given an account of a hoard of Imperial denarii found near Nuneaton, and of one of somewhat later date found in the City of London. Each hoard comprised some coins of reigns but rarely represented in British finds, and also a few varieties not mentioned in Cohen's comprehensive lists.

The papers relating to Saxon coins have been two in number. One of them, on some Saxon coins found in Ireland, is by our veteran honorary member, Dr. Aquilla Smith. It relates to coins of Edward the Elder and Æthelstan, and gives us the names of some moneyers not mentioned by Ruding. The other paper is by myself, and relates also to a hoard of Saxon coins found in Ireland, but of an earlier date than Edward the Elder. The most remarkable feature in this hoard is that by far the greater part of the coins are of Kentish origin, so that in all probability they formed part of a treasure carried off from Kent. As, however, coins of so early a date are never found in the Scandinavian hoards, a presumption is raised that many of the early incursions of the "heathen men," or Danes, on the western and southern shores of England, were made by Danes who had already settled in Ireland, and not by those of the mother country. The date of the last of the coins agrees well with the recorded invasion of the Isle of Sheppey, and the undoubtedly Kentish origin of most of the coins tends to strengthen the

attribution of many of the coins of the Kings of Mercia to the Canterbury mint, even when the types alone rather than the names of the moneyers afford the evidence.

In English numismatics the communications made to the Society are, I am glad to say, numerous. Canon Pownall has called our attention to the Irish half-pence of John, with the cross pommée mint-mark, as confirming, if confirmation were necessary, the attribution of the English short-cross pennies bearing that distinctive mark to the reign of John.

Mr. Toplis has favoured us with an account of a hoard of long-cross pennies of Henry III., found at Newark, which is especially interesting on account of the vessel in which they were buried having been found intact—numismatics thus coming in aid to the students of mediæval English pottery.

† Mr. Neck, in an elaborate paper based on a hoard of coins of Edward I., throws some new light on the attribution of the coins of the three first Edwards, though in the main bearing out the views of Sainthill, and of my son. Not the least valuable part of the paper consists in a list of the half-pennies and farthings of the three Kings, which, however, still present great difficulties in being reduced into chronological order. Perhaps some hoards which may yet be discovered will throw a satisfactory light upon this subject.

Dr. Aquilla Smith, whose knowledge of the Irish coinage is probably unrivalled, has furnished us with a Paper on the Irish Coins of Richard III., which makes known some documentary evidence hitherto unpublished, and gives a list of the varieties of coins at present recorded. Short as was the reign of Richard there appears to have been time in it for three distinct coinages, though specimens of all of them are so scarce, that in Simon's time only a single example seems to have been known.

Mr. Homersham has called our attention to the groats with the profile of Henry VIII., and Mr. Gill has still further added to the list of the Devonshire tokens of the seventeenth century.

Some of those grand works of art, which testify so strongly to the genius of the early Italian medallists, and which of late have attracted so much attention, and realised such large prices, have been brought under our notice by Mr. Whitecombe Greene. His paper on the medals by G. M. Pomedello extends the attributions of Messrs. Armand and Friedländer, and enlarges the list of Pomedello's medals to eleven. The medal of Charles V., now for the first time shown to be of that artist's workmanship, will not detract from the high reputation of the Veronese medallist.

In Oriental numismatics we have had several papers, of which perhaps a short summary may suffice. Mr. Thomas has given us an important paper on some bilingual coins of Bukhara; the Hon. James Gibbs, an exhaustive account of the gold and silver coins of the Bahmání dynasty; M. Sauvaire, a note on an unpublished Saffaride *fels*; and Mr. Rodgers a notice of some coins of Nadir Shah, struck during his incursion into India. The coinage of Tibet has been illustrated by M. Terrien de la Couperie, while that of Japan, more especially in iron, formed the subject of a paper by Mr. Bramsen, whose sudden and untimely death we all deplore.

Another of our younger members, Mr. H. W. Henfrey, has also been taken from us. Henry William Henfrey was born in London, on July 5, 1852, and was the eldest son of the late Arthur Henfrey, Esq., F.R.S.; F.L.S., &c., Professor of Botany in King's College, London. His mother was Elizabeth Anne, eldest daughter of the late Hon. Jabez Henry. While still a pupil at Brighton College he showed great talent for languages, and attained distinction in the school. An unfortunate accident, however, interfered with the progress of his studies, and prevented him from entering the University of Oxford. The friendship of the late Mr. Peter Cunningham, Mr. Joseph Bonomi, and Admiral Smyth, encouraged him in archæological and numismatic studies, for which he had a natural bent. One of his first efforts in numismatics was an article on Queen

Anne's farthings communicated to the *English Mechanic*. While still a youth he, in 1868, became a Member of this Society, to which he contributed no less than twelve papers, printed in the "Numismatic Chronicle." They principally relate to English coins and medals. To the Archæological Association he also communicated some valuable papers, especially on the coins struck at the mints of Bristol and Norwich, and on the medals of Oliver Cromwell. At the time of his death he was extending the scope of these memoirs, and was arranging for the press a History of the Country Mints of England, for which he had for several years been collecting materials.

In 1870 he published a "Guide to English Coins,"³ a very useful handbook for collectors; but his most important work was the "Numismata Cromwelliana,"⁴ published in 1877, which contains the most complete account of the coins, medals, and seals engraved during the Protectorate, which has ever been compiled.

Mr. Henfrey was a foreign member of the Belgian and French Numismatic Societies, as well as of several Antiquarian and Numismatic Societies in America. His health had for some time been failing, and shortly after his return from a sojourn in Italy, he died at his mother's residence in Bromley, Kent, on 31st July, 1881, regretted by a large circle of friends.

In Mr. Samuel Sharp, F.S.A., F.G.S., we have lost an old and valued friend. He was elected a member of this Society in June, 1861, and had more than completed his twentieth year of membership at the time of his decease, on January 28, 1882. He was born at Romsey, in Hampshire, in 1814, and received his early education at Southsea. While still a boy he removed to Stamford, in Lincolnshire, his mother after his father's death having married the proprietor and editor of the *Stamford Mercury*, one of the oldest newspapers in the Midland Counties. Here Mr. Sharp assisted his step-

³ J. Russell Smith.

⁴ J. Russell Smith, 4to.

father in editing and managing the paper, and here he acquired that love for the ancient town of Stamford, which led him to form an unrivalled collection of the coins which issued from its mint, a first list of which appeared in the "Numismatic Chronicle," N.S., Vol. ix., and a second list, raising the number of Stamford coins to nearly eight hundred, appeared in the twentieth volume. In 1857, Mr. Sharp removed to the neighbourhood of Northampton, and two of his other communications to the Society relate to Roman coins and coin moulds found at Duston, near that town. His other papers in the Chronicle are on foreign sterling of Marie d'Artois and Henry III. of Germany. Besides his labours as a numismatist, Mr. Sharp distinguished himself in the fields of geology and archæology. His papers on the Oolites of Northamptonshire will long remain standard authorities on the Jurassic strata of Central England, and his "Rudiments of Geology," which he did me the honour of dedicating to me, is now in its second edition. His archæological papers were principally communicated to local societies, but his account of Roman remains found at Duston is published in the "Archæologia" of the Society of Antiquaries, of which he became a Fellow in 1864, and of which he was Local Secretary for Northamptonshire during many years. He was elected a Fellow of the Geological Society in 1862, and was a frequent attendant at its meetings. Combining as he did a knowledge of geology and archæology he naturally took a warm interest in the question of the Antiquity of Man, which was a subject of lively discussion some twenty years ago, and in 1862, Mr. Sharp delivered a lecture on this subject, and on more than one subsequent occasion took up the cudgels in defence of primeval man. He was especially interested in promoting scientific tastes in Northamptonshire, and did much to improve the character of the local museum. His ready eye and retentive memory gave him a faculty of determination whether of a fossil or of a coin, and his stores of knowledge were always readily available to others. Of late years his failing health kept him

much at home, but he never lost his interest in any of his favourite subjects. His death leaves a void in his adopted county which it will be hard to fill, and numismatists, geologists, and antiquaries alike mourn his loss.

Among our foreign members we have to deplore the loss of M. Adrien Prévost de Longpérier. He was born in Paris on the 21st of September, 1816, and at an early age exhibited a taste for archæology and numismatics. While still a youth he formed a fine collection of ancient coins, and at the age of twenty was admitted as a supernumerary officer in the Cabinet des Médailles, at the Bibliothèque Royale. He there remained until 1846, when he became one of the Keepers of the Collection of Antiquities at the Louvre. After twenty years of service he was compelled by ill-health to resign, but his archæological tastes and his museum experience were again brought into use in 1877, when he was called upon to organize the Retrospective Exhibition at the Trocadéro, in Paris. His knowledge of several Oriental languages, his practical acquaintance with antiquities of various kinds, and from various countries, placed him in the foremost rank in France, a country distinguished as the nursery of so many of our best archæologists and numismatists. I shall not attempt to recapitulate his various works which relate to the archæology of the New World—"that great antiquity, America," as Sir Thomas Brown has happily termed it—as well as to that of the Old. His papers in the "*Revue Numismatique*," of which for some years he was one of the editors, are numerous, and range over a wide field. It was to him that so many of the essays of M. de Saulcy on the Gaulish coinage were addressed, under the oft-repeated formula of "*Mon cher Adrien*."

So long ago as 1839 M. de Longpérier communicated a paper on a coin of Titipolis in Isauria to the first series of the "*Numismatic Chronicle*," and subsequently showed his interest in English numismatics by publishing a remarkable gold coin of Offa with a Cufic inscription, some notes on coins in the

Cuerdale hoard, and an account of a Mouton d'or struck in Normandy by our Henry V. His only other paper in the Chronicle is a note on coins reading **OYEPBIANΩN**.

I may add that his archæological papers are now being published in a connected form, under the able editorship of M. Schlumberger.

Personally M. de Longpérier was a courteous gentleman of engaging manners, and always ready to place his vast stores of knowledge at the disposition of those who needed his aid. His loss will be deeply felt by a large circle of attached friends. I must not, however, dwell longer on his memory, but in concluding this imperfect notice would hold him up as a model which we all might do well to follow.

Returning for a moment to the affairs of the Society, I will again urge upon our Members the desirability of bringing under our notice any new facts or discoveries with which they may become acquainted, not necessarily in long or formal papers to be read before the Society, but even in short occasional notes such as might fittingly be printed among the Miscellanea in our Chronicle.

The Treasurer's Report is appended:—

Statement of Receipts and Disbursements of the Numismatic Society, from June, 1881, to June, 1882.

Dr. THE NUMISMATIC SOCIETY OF LONDON IN ACCOUNT WITH ALFRED EVELYN COPP, T_{REAS.} C_{r.}

	£	s.	d.	£	s.	d.	
To Messrs. Virtue & Co., for printing Chronicle, Part I., 1881	30	12	7	By Balance from last Statement	187	1	0
ditto ditto ditto Part II., 1881.	39	16	4	Compositions	54	12	0
ditto ditto ditto Part III., 1881.	39	3	6	Entrance Fees	17	17	0
ditto ditto ditto Part IV., 1881.	47	10	0	Annual Subscriptions	118	13	0
The Autotype Company	57	1	10	Col., James Tobin Bush, for Chronicles and Postage	0	5	2
J. Davy and Son, for printing	5	5	0	Mr. John Russell Smith, for Chronicles	48	5	0
Mrs. Ayres, one year's Rent to Christmas, 1881.	20	0	0	Mr. Edward Thomas, proportion of Autotype Company's Account	0	10	0
ditto gratuity for Attendance	5	0	0	Barclay V. Head, being his proportion of Autotype Company's Account for extra copies of six plates in Part III., Num. Chron., 1881	5	6	0
ditto for Coffee, Postages, &c.	3	13	0	Alexander Peckover, for Chronicles for 1881	0	14	0
F. J. Lees, for Etching	3	15	0	Col., Tobin Bush, Foreign Postage	0	1	0
J. Swain, for Engraving	1	5	0	Half-year's Dividend on £500 3 per cent. Consols due 5th July, 1881	7	6	11
E. Watson, Bookbinder	2	19	7	" " due 5th January, 1882	7	6	11
Vincent Brooks (Day and Son), for Lithographing	5	5	6				
W. S. Lincoln and Son, for Hawkins' Silver Coinage	1	12	0				
R. O. Hearson, for Stationery, &c.	2	1	0				
Fire Insurance on £500	0	15	0				
Treasurer, Librarian and Collector, for Postages, Receipts, Stationery, &c.	3	10	0				
Secretary, for Postages, &c.	2	10	0				
H. A. Grueber, for Postages, two years	1	5	0				
Collector (Mr. Evan E. Davies), for Commission	1	5	0				
Balance	173	12	8				
	<u>£447 18 0</u>				<u>£447 18 0</u>		

By Balance in hand 173 12 8

ALFRED E. COPP, HON. T_{REASURER.}

20th December, 1882.

J. FREDERICK NECK,
ALEXANDER DURLACHER, } *Auditors.*

15th June, 1882.

The Meeting then proceeded to ballot for the Council and Officers for the ensuing year, when the following gentlemen were elected :—

President.

JOHN EVANS, ESQ., D.C.L., LL.D., F.R.S., F.S.A.,
F.G.S.

Vice-Presidents.

RT. HON. THE EARL OF ENNISKILLEN, D.C.L., F.R.S.,
F.G.S.

W. S. W. VAUX, ESQ., M.A., F.R.S.

Treasurer.

ALFRED E. COPP, ESQ.

Secretaries.

HERBERT A. GRUEBER, ESQ.

BARCLAY VINCENT HEAD, ESQ., M.R.A.S.

Foreign Secretary.

PROFESSOR PERCY GARDNER, ESQ., M.A., F.S.A.

Librarian.

RICHARD A. HOBLYN, ESQ.

Members of the Council.

E. H. BUNBURY, ESQ., M.A., F.G.S.

C. F. KEARY, ESQ., M.A., F.S.A.

R. LLOYD KENYON, ESQ., M.A.

REV. S. S. LEWIS, M.A., F.S.A.

J. H. MIDDLETON, ESQ., M.A., F.S.A.

J. F. NECK, ESQ.

R. W. COCHRAN-PATRICK, ESQ., M.P., F.S.A.Scot.*

THE REV. CANON POWNALL, M.A., F.S.A.

THE HON. REGINALD TALBOT, LL.B.

WARWICK W. WROTH, ESQ.



I.

ASKLEPIOS AND THE COINS OF PERGAMON.

Ἔστία γάρ Ἀσκληπιοῦ τῆς Ἀσίας ἐνταῦθα ἰδρῦθη, κἀνταῦθα δὲ φρυκτοὶ φίλοι πᾶσιν ἀνθρώποις αἴρονται παρὰ τοῦ θεοῦ καλοῦντος τε ὡς αὐτόν, καὶ μάλα ἀληθινὸν φῶς ἀνίσχοντος.

ARISTIDES RHETOR.

WHEN the old mythographer, Apollodoros, had proposed to himself the task of dating the apotheosis of men who had become gods, he determined the deity Asklepios to be among the youngest of the immortals, and fixed the period of his deification just at thirty-eight years after Herakles had begun to reign in Argos. The chronology of Apollodoros is, perhaps, a little too precise and over-confident; but at any rate it points us to a curious fact in connection with the legend and cultus of the Hellenic divinity of Medicine. For the Greeks, their Goddess of Wisdom and of War sprang in full panoply from the brain of Zeus; the Goddess of Desire and Love arose in perfect beauty from the foam of ocean; but the God of Healing was born of a mortal mother, and only late in time attained the full stature of godhead, not winning the entire allegiance of his worshippers until the bloom of Grecian life and freedom was well-nigh overpast. And almost as if in conformity with this his tardy elevation to the Pantheon, and as if to match the late period at which he gained a veritable hold upon the affections of men, is the comparative neglect with which Asklepios has been treated by modern writers. Under his Roman name of

Aesculapius, indeed, the god is familiar to all the world ; and the modern apothecary is still occasionally declared to be his son. But from the point of view of the scholar and historian, Asklepios hardly seems to have received the attention he deserves, especially when we take into account the important bearing which all studies connected with this deity must have upon the history of ancient medicine and of religious life among the Greeks. From our own countrymen scarcely any contribution has been made to this subject, and even the Germans have been far less diligent here than in dealing with other mythological questions. As might be expected, however, they have by no means left this region entirely unexplored. The monograph of Panofka, entitled *Asklepios und die Asklepiaden*, which was published at Berlin in 1846, although an extremely fanciful piece of work, is very full and learned ; and Welcker in his *Götterlehre* is admirable, of course, so far as he goes, though his treatment is of necessity somewhat concise. With regard to the archaeological illustration of the subject, not very much has been done ; nor is this, perhaps, to be wondered at, since it is only quite recently that a really substantial addition has been made to our existing stock of monuments relating to the God of Medicine. The important discoveries made during the last few years on the site of the Athenian Asklepieion, on the southern slope of the Akropolis, will be found described principally in volumes of the *Bulletin de Correspondance Hellénique* and in the *Mittheilungen* of the German Archæological Institute at Athens.¹ By writers on numismatics—and it is with

¹ And see the monograph of M. Paul Girard, *L'Asclépieion d'Athènes*. Paris, 1881.

this branch of archæology that we are here more immediately concerned—no aid of very great importance has been rendered. There are, indeed, disquisitions on one or two of the more remarkable coins which offer types relating to Asklepios, but no numismatist has yet essayed the task of collecting together and carefully classifying *all* the various Asklepian types, wherever they are to be found on the money of the Roman and Hellenic world. The proper accomplishment of such a task would, I am convinced, be no mean contribution towards the elucidation of this particular section of ancient religion and mythology. It would offer evidence corroborative and explanatory of that already derived from other sources; it would in some cases supply us with actually new facts; and finally, by concentrating as it were in a single map or tableau the whole history of the Asklepios cultus at various periods and in different lands, and by enabling us to realise through actual inspection of the ancient monuments its almost world-wide extent and importance, it would afford in a high degree that imaginative stimulus which plays so important a part in the formation of the historic sense. A plan like this could not be carried through without some difficulty, and would require, if nothing else, the expenditure of much time and labour. Meanwhile I am desirous to offer a small contribution in the form of an article on the money bearing types relating to Asklepios which was issued by the city of Pergamon—a city which from its pre-eminent association with Asklepios, and from the number and variety of its coin-devices connected with that deity, may well demand a paper to itself and a full consideration of its coins in detail.

A glance at the plates accompanying this article will

show that the coins which form its subject are not the beautiful Greek coins of the blooming period of art. They are all of a late time—most of them, indeed, of the Imperial Age. Their archæological value is not, however, any the less on that account: and we should beware how we fall into the rather common error of despising these Greek Imperial coins. Many of them, as M. Lenormant² has justly remarked, are quite as much Greek in character as Imperial. The Emperor, indeed, claims for his bust and titles a place upon their principal side, but he does not as a general rule usurp the proprietorship of the coin, nor even attempt to dictate the subject of its reverse. It is the money, not of Antoninus or of Hadrian, but of the people of Pergamon—not **ΑΝΤΩΝΕΙΝΟΥ** or **ΑΔΡΙΑΝΟΥ**, but **ΠΕΡΓΑΜΗΝΩΝ**. It is, moreover, important to determine by a careful analysis of the Greek coin-types belonging to Imperial times how far it was mere adulation and conventionalism which led to their adoption, or how far the autonomous feeling—as it may be called—still had play in their choice even under the crushing effects of Roman influence and dominion. And that a considerable residuum of this more Hellenic feeling is still traceable in the types of Greek Imperial coins can scarcely perhaps be doubted. But farther, in the Imperial time we find at the different towns consecutive groups of coins which can be easily and accurately dated; a circumstance which is most favourable to an attempt like the present—to write from the data afforded by coins some kind of sketch or history of one particular worship in a single city. And lastly, if these coins are of a late period, so also in his more universal and important aspects

² *La Monnaie dans l'Ant.*, t. ii. pp. 164—168.

is Asklepios himself. To the audiences for whose delight the poems of Homer and Pindar were composed Asklepios had not yet become a god. In the Epic poet he is no more than the physician of irreproachable skill, ἀμύμων ἰητήρ; in the Lyric, a hero potent in the healing art. Indeed, it may be that at this period Asklepios was solely the deity of a Thessalian tribe in connection with whose worship was practised a primitive form of divination by means of serpents. It would, however, be quite wrong to suppose that Asklepios remained entirely obscure till the latest period of Greek history; for even in Pindar we find his legend already so far developed that later mythographers and local priesthoods will do but little more than add to, or vary, the original structure. Asklepios is already the son of the maiden Koronis, and the divine Apollo is given as his sire. Sculptors of renown like Alkamenes and Skopas were employed in the service of the god; Sophokles sang a pæan in his honour. Aristophanes in his *Plutus* has left posterity an invaluable though coarsely exaggerated picture of what took place in the Asklepieia of his day. Several of the reliefs found recently on the site of the Athenian temple recall by their style a good period of Attic art, and the numismatist can point to a coin of the fourth century B.C. struck at the Thessalian Triikka, the earliest seat of Asklepios-worship in Greece. Yet, notwithstanding, it is emphatically to later times that Asklepios properly belongs. It is then that he first begins to exert a wider influence and to exercise more powerful sway. As we advance into the Hellenistic and Roman periods, it is easy to perceive that a vast change has come over the spirit of his divinity. Everywhere in Asia his effigy begins to appear upon the currency, and men have begun to invoke him not only as

a healer of bodily disease and pain, but as a present help in every trouble, a rescuer from every kind of ill.³ The slave is emancipated in his temples; ⁴ the sailor in peril implores his aid; ⁵ and to him the soldier ransomed from the foe dedicates a thank-offering; ⁶ men hail him Saviour ⁷ and King; ⁸ yes, and at last the devotee, exalting him high above all gods, exclaims, "Asklepios, thou my master, whom I so often have invoked in prayer, by night and day," "great is thy power and manifold:" for thou art He "who dost guide and govern the Universe, Preserver of the World, and Bulwark of the immortal Gods!" ⁹

It is somewhat in this way that we must think of Asklepios in connection with our present inquiry; for it was at Pergamon that this *later* Asklepios had the most notable centre of his worship. Galen, who was a native of Pergamon, speaks of the God of Medicine as *πάτριος θεός*—the god of his fatherland; and *Deus Pergameus* is the Roman poet's synonym for Asklepios. But of Pergamon itself it seems necessary to say a few words before entering into the numismatic details of the subject.

The city of Pergamon lay in the rich valley of the river Kaikos, in a beautiful district of Mysia. The history of the place is not brought prominently before our notice

³ K. B. Stark, *Vorträge und Aufsätze* (1880), pp. 112—114.

⁴ R. Weil, in the *Mittheil. des Deut. Arch. Inst.*, Vierter Jahrg. (1879), p. 22 ff.

⁵ Inscriptions in the *Ἀθήναιον*, vol. iv. p. 20., Nos. 33, 34.

⁶ Relief No. 4 in the "Catalogue descriptif des ex-voto à Esculape," in *Bull. de Corr. Hell.*, 1877, pp. 156—169.

⁷ C. I. G., Nos. 3577, 5974, &c.

⁸ C. I. G., No. 5974 B.

⁹ Expressions from the earlier portion of Aristides, *Orat. VI.*, vol. i. p. 63, ed. Dindorf.

until the time of Lysimachus, the general of Alexander, who selected its towering Akropolis as a stronghold for the deposit of an enormous treasure, said to consist of nine thousand talents. This treasure he confided to a trusted servant, the eunuch Philetairos, but the latter, in the year B.C. 283, declared himself independent, and actually managed to retain possession of this store of wealth for twenty years, when he transmitted it with the territory he had acquired to his nephew Eumenes. Such was the origin of the famous dynasty of the Pergamene kings. The successor of Eumenes was Attalus, a sovereign who inaugurated a sagacious policy of alliance with Rome, and made his name renowned as victor of the Gauls. It is, however, under Eumenes, the second of his name, who reigned from B.C. 197 to 159, that the kingdom of Pergamon and its capital acquire especial interest and importance. This ruler, while extending the limits of his principality generally, seems to have been the first to unite the scattered regions of which his capital was composed—the citadel, the town which had grown up at its base, the suburbs to the west, and the outlying district consecrated to the worship of Asklepios.¹⁰ Nor was it only for its material prosperity—the *Attalicæ conditiones* of the poet—that Pergamon was to be distinguished. With the history of literature and art its name is also inseparably connected. Under the same Eumenes arose its noble library, consisting of many thousand volumes; and under him, too, was doubtless sculptured that splendid combat of Gods and Giants which adorned the great Zeus-altar of the Akropolis;¹¹ the product of a school

¹⁰ Aristid., vol. i. p. 772, ed. Dindorf.

¹¹ *Die Ergebnisse der Ausgrabungen zu Pergamon*, Conze and others. Berlin, 1880.

of art of wildly daring imagination and of tendencies almost ultra-dramatic; but a work of no common excellence, nor one unfitted to symbolise a contest of the brilliant Hellenic with the barbarian Gaul. In the words of Strabo¹²:—it was Eumenes who “built the city . . . and out of his love of magnificence and beauty erected buildings as offerings to the gods, and founded libraries, and made Pergamon the splendid abode which it now is.” In B.C. 133 the dominion of the Pergamene kings was bequeathed to the Romans by Attalus III., and, under the name of Asia, became a Roman province. Beneath the sway of her new masters the capital still continued to prosper, and remained for the district the centre both of jurisdiction and of commerce, “as all the main roads of Western Asia converged” thither. Pliny speaks of Pergamon as “longe clarissimum [provinciæ] Asiæ.” Under the Byzantine emperors the glory of Pergamon declined; but the ruins still visible and the name of Bergama bear witness, however imperfectly, to her former greatness.

Professor Curtius¹³ has well pointed out the intimate connection of the climate and natural features of Pergamon with the worship of the God of Medicine. To this day the traveller who comes from Smyrna and Ionia has in store a delightful surprise in the fresh and wholesome breezes of Bergama. Above all, is the abundance of water, its rivers, its streamlets, and springs, especially to be remarked. The Imperial coins of Pergamon offer, not unfrequently, representations of the city’s river-gods.¹⁴ The river Seleinos, with its tributary streams, flowed

¹² XIII. 624.

¹³ *Beiträge zur Geschichte und Topographie Kleinasiens*. Berlin, 1872, p. 47.

¹⁴ Mionnet, t. ii. p. 602, Nos. 582, 583, &c.

through the ancient city, passing beneath the Akropolis on the west, while the Keteios flowed past the city on the east. Although not actually on the sea, as were so many of the cities which honoured Asklepios, Pergamon was connected with it by the navigable river Kaikos. The patients who frequented its Asklepieion had thus, besides the benefit of the medicinal springs, convenient opportunities both for sea and river bathing—ablutions of this kind forming an important part of the treatment in the quasi-hospitals of the God of Healing. As for the Temple itself, its site has almost certainly been discovered in our own day by Herr Carl Humann.¹⁵ This famous sanctuary, of which now only the scantiest fragments remain,¹⁶ lay about two miles west of the town in a healthful situation, abounding in cold and lukewarm springs. It was an almost invariable condition in the establishment of Asklepieia that they should be a little removed from the noise and hurry of the city, planted on lofty terraces or hills, where springs were plentiful and life-giving breezes blew. At Pergamon, the Temple of Asklepios was not far distant from the Stadion, and was connected by a covered way with the west door of the theatre. Both these facts are interesting, as we find at Athens the Asklepieion connected in like manner with the theatre of Dionysos, while at Epidaurus there was a stadion and a magnificent theatre built by Polykleitos. In the stadion would be celebrated the festivals in honour of the Healing God, of which gymnastic contests constituted a prominent feature; and theatrical entertainments, while doubtless

¹⁵ *Die Ergeb. d. Ausgrab. zu Perg.*, p. 12; cp. p. 118.

¹⁶ *Skizzen aus Pergamon*, von Chr. Wilberg. Berlin, 1880 (with text), Taf. V. Curtius, *Beiträge*, p. 52.

attracting many visitors to the place, would have a salutary influence on the patients during convalescence. The Temple itself was thronged by worshippers. You might see them, says an eye-witness of the time of Aurelius, as on summer mornings they swarmed like bees around the sacred well of Asklepios, seeking to catch the vapour which, without other draught, was able to quench their thirst. And the water of that well was of no common efficacy. Cold in summer and mild in winter, sweet, and in taste not less delightful than wine, it had virtue to heal all physical infirmity; it could open the eyes of the blind, and make the lame man leap as a hart. Great, therefore, was their faith in the holy spring: and did it not flow from the very foundations of the Temple, from the feet of the Saviour-God himself?¹⁷ As to the origin of the Asklepios cult at Pergamon, Pausanias¹⁸ makes so definite and plausible a statement, that were there any corroborative evidence we might almost be disposed to accept it as historical. Archias, the son of Aristaichmos, he says, had incurred a sprain whilst hunting on Pindasos (a mountain of Mysia), and being cured in the territory of Epidaurus, introduced the worship of the god into Pergamon. The beginnings of this worship are, not unnaturally, involved in obscurity. The cultus was certainly flourishing under the Pergamene kings, but it may be inferred that its introduction was not much older than the establishment of that dynasty. Curtius,¹⁹ indeed, has with much probability conjectured that the worship of the Hellenic Deity of Medicine was engrafted

¹⁷ See the oration of Aristides, *Εἰς τὸ φρέαρ τοῦ Ἀσκληπιοῦ*, vol. i., pp. 408—414, ed. Dindorf.

¹⁸ II., 26, 7.

¹⁹ *Beiträge*, p. 48.

upon an already existing cultus of the Cabiri. According to Pausanias,²⁰ all the Pergamene territory was originally consecrated to them, and Aristides²¹ calls them the oldest of the gods of Pergamon. The antiquaries of the Roman times said that Asklepios himself had come to Pergamon leading a colony from Hellas Proper, a previous immigration from Arcadia having been headed by Telephos, the son of Herakles.²² But it is time to pass from this preliminary sketch to the numismatic evidence which attests and illustrates the worship of Asklepios at Pergamon.

The coins of the capital of the kingdom of Pergamon may, for our present purpose, be distributed under four periods. I. The period anterior to the establishment of the Pergamene kingdom, from about B.C. 400 to B.C. 283. II. The period of the Pergamene kings, B.C. 283 to B.C. 133. III. Pergamon under the Roman Republic, B.C. 133 to B.C. 27. IV. Pergamon under the Roman Empire.

I. Of the history of Pergamon before Lysimachus we have but scanty information. We know, however, that at the commencement of the fourth century B.C. it formed with Gambrium, Myrina, and Grynium a small and half-independent principality which the kings of Persia had given, as a reward for his treacherous aid, to Gongylos the Eretrian, and that it was then governed by his sons Gorgion and Gongylos.²³ To this period must be assigned

²⁰ I. 4, 6.

²¹ Vol. ii. p. 709, ed. Dindorf. Cp. also C. I. G., No. 3538, and the Cabiric (?) coin noticed below, p. 13, note.

²² Aristid., vol. i. p. 772, ed. Dind.

²³ Xenoph., *Anab.*, vii. 8, 8. Waddington, *Mélanges de Num.*, 2nd Series, 1867, pp. 45, 46.

some gold and silver coins of a good style, as well as others in silver and copper which, though probably somewhat later, are yet anterior to the time of the kings. Among the divinities represented on these coins Apollo and Dionysos appear; but Herakles, and especially Pallas (who is generally symbolised by the Palladium), are those which occur with the greatest frequency. We thus find Pallas already installed in a place of honour which, as we know from coins and from other sources, she always held under the Pergamene sovereigns, and even in later times. It is unnecessary to describe these coins in detail, our present object being, not to give a complete description of the money of Pergamon, but only of such pieces as have types relating to the god Asklepios. Where Pergamene coins other than those of an Asklepiian significance are referred to, it will almost always be in order to determine—so far as coins may be admitted as evidence—the importance which the God of Medicine had in the estimation of the Pergamenes as compared with the other divinities whom they honoured with worship. On the specimens mentioned above it will be noticed that Asklepios has not yet made his appearance, and it may well be doubted whether he has yet become a Pergamene deity at all. It should, however, be mentioned that among the series of uncertain electrum hektæ there is a set which might be possibly attributed to Pergamon. These coins have for the obverse the head of a bearded and laureate Asklepios, before which is a small serpent [see Pl. I. No. 1, Brit. Mus. Coll.]; the reverse type varies, being either a head of Herakles, a winged female figure, or a serpent. As these specimens are uninscribed, their attribution is necessarily of extreme uncertainty, and, indeed, they might with equal fairness be claimed for the island of

Kos. But from this scanty notice of Asklepios we must pass to our second period, which we may expect to yield something more than the negative evidence just obtained, and which indicates the improbability of Asklepios having been a great Pergamene divinity before the time of the kings.

II. The coinage issued by the famous dynasty which reigned from B.C. 283 to B.C. 133 consists for the most part of silver tetradrachms. Unfortunately, the study of these does nothing towards elucidating our present subject, since, as is well known, their types remained unchanged throughout, being, for the obverse, the head of Philetairos or of one of his successors; for the reverse, the seated figure of Pallas.²⁴ Setting aside, for the moment, the silver cistophori, we turn to the copper coins which at this time formed part of the currency. The specimens in this metal present us with two, or perhaps three, types relating to Asklepios. And, although there are even fewer data than in the case of the silver pieces for assigning these copper coins to the particular dynast by whom they were minted—the only inscription they bear being ΦΙΛΕΤΑΙΡΟΥ—it is at any rate satisfactory to know with absolute certainty that they were issued under the kings. They nearly all have the head of Pallas on the obverse; but on the reverses various devices occur, among which are the thyrsus, bow, star, and ivy-leaf. The first of the reverse types

²⁴ I ought to mention a remarkable silver tetradrachm in the British Museum which may be considered to break this series of constant reverse types. It has *obv.* head of Eumenes II. (probably), *rev.* ΒΑΣΙΛΕΩΣ ΕΥΜΕΝΟΥ (*sic*). The Dioscuri, or Cabiri, standing, facing: the whole in oak-wreath. In the field a thyrsus. In ex. ΔΙΩ. Weight 235 grains. As we have seen above (p. 11), it is possible to connect the Cabiric divinities with Pergamon, though perhaps this coin may have been struck, not at Pergamon, but in the island of Syros. See B. V. Head, *Guide to Coins of the Ancients*, 1881, Period VI. A. 7.

which immediately concerns us here, is one of considerable importance, not only as furnishing further evidence of the Asklepiian worship under the Pergamene kings, but also as bearing upon a doubtful point in the history of ancient sculpture [see Pl. I. No. 3]. The obverse bears the usual head of Pallas turned to the right; the reverse has the inscription ΦΙΛΕΤΑΙΡΟ[V], and presents a figure of the bearded Asklepios, seated towards the left on a stool somewhat resembling that on which Pallas sits on the tetradrachms mentioned above. The upper part of his body is bare, but the lower limbs are covered with a mantle, and there seems to be a fillet on his head. The outstretched right hand holds a patera, from which a serpent, rearing up in front, is feeding; his left rests on the seat; behind him is his sceptre (*Æ. Brit. Mus. Coll.*). The reverse of this specimen evidently belongs to that class of coin types which are fairly considered by numismatists to be copied from, or at least suggested by, some well-known statue of bronze or marble existent in the city where the coin was minted. Now the most famous statue of Asklepios at Pergamon in the time of the kings was one made by the artist Pyromachos, who flourished perhaps about B.C. 240.²⁵ It is, therefore, most natural to see on our coin a copy or at least a reminiscence of this work. Hitherto, however, most archæologists have suggested that we should look for a reproduction of this statue on coins, not in a seated figure, but in the well-known representation of the God of Medicine standing, and leaning on his snake-encircled staff [see Pl. I. 4; II. 1; III. 5]. Certainly, the latter type occurs with sufficient frequency at Pergamon, as well

²⁵ Brunn, *Geschichte der Griech. Künstler*, vol. i. p. 443. Smith, *Dict. Biog.*, s. v. *Pyromachos*.

as at other places ; but when we come to examine the Pergamene coins more closely, we find that not only does this familiar *standing* Asklepios not make its appearance until Roman times, but that the *only* figure of Asklepios brought before our notice on the currency of Pergamon during the age of Phyromachos—and, indeed, throughout the whole period previous to the Roman dominion—is this of the *seated* Asklepios.²⁶ From this coin, therefore, we may not unfairly draw an inference as to the general motive of the statue of Phyromachos. With regard to the latter production, it had already been suspected by Overbeck²⁷ to be, not an original creation, but a copy or adaptation from the work of some earlier and more famous artist of the Pheidian school. Such an original the Pergamene sculptor would have before him in the chryselephantine statue of Asklepios at Epidaurus ; the source, moreover, from which the Asklepiian worship of Pergamon was in all probability derived. This work, the production of Thrasymedes, an artist belonging to the school of Pheidias, is minutely described to us by Pausanias, and we happen to possess a reproduction of it, in all its essential details, on a silver coin of Epidaurus, which may be assigned to the fourth century before our era²⁸ [Pl. I. No. 2]. On the reverse

²⁶ On one other coin of this period we have a *head* of Asklepios (*rev.* serpent and key), but no other representation of him besides the seated figure mentioned in the text.

²⁷ *Griechische Plastik*, ii. p. 264, note 17 ; and ii. pp. 176, 177.

²⁸ The specimen here photographed is in the British Museum ; there is one similar at Berlin (No. 150 in *Das Königliche Münzkabinet*) ; and see *Berliner Blätter für Münz-Siegel und Wappenkunde*, Bd. III. S. 25. In the Berlin Guide it is erroneously stated that the representation of the temple-statue on this coin

of this specimen we get, as a glance will show, a motive almost identical with that on the reverse of the Pergamene coin. The hound which is seen beneath the seat of Asklepios figured only in the local Epidaurian legend, and is not reproduced on the Asiatic coin. And it must be admitted that the original Thrasymedeian god is a nobler figure than his Phrymacheian imitation: the one is seated, Zeus-like, on a throne; the other sits in a more easy but less dignified posture upon a seat of a humbler kind.²⁹ The seated Asklepios on coins seems to be a motive which was generally superseded in later times by the more popular standing Asklepios, although we afterwards get at Pergamon an occasional recurrence to the old conception; for instance, on a coin of Faustina the Younger,³⁰ we find the God of Medicine seated, holding his snake-encircled staff; and, with a more direct reference to the older idea, a coin of Commodus³¹ shows an Asklepios seated to the left, holding out in his right hand a patera to the serpent which rises up before him, his left being placed on the top of a sceptre.

differs from the description of Pausanias (Corinth. 27), in that the dog is made to lie, not before the feet of the god, but under his throne. As Prof. Percy Gardner points out to me, all that Pausanias really says is that the dog was represented *lying down beside* Asklepios (κάθεται δὲ ἐπὶ θρόνον βακτηρίαν κρατῶν, τὴν δὲ ἑτέραν τῶν χειρῶν ὑπὲρ κεφαλῆς ἔχει τοῦ δράκοντος, καὶ οἱ καὶ κύων παρακατακείμενος πεποιήται).

²⁹ Compare also the copper coin of Trikkia (of the fourth century B.C. or later), with Asklepios seated r. on a folding stool, offering a bird to the serpent which rears up before him, published by Mr. Head, *Num. Chron.* (N.S.), vol. xiii., Pl. IV., Fig. 9.

³⁰ Mion. Sup. t. v. "Pergamus," No. 1018.

³¹ Mion. t. ii. "Pergamus," No. 595. Cp. Leake, *Num. Hell.* (Asiatic Greece), p. 98, *rev.* Asklepios seated to l., in r. patera, in l. hasta entwined with serpent.

The next coin to be mentioned is especially interesting from the unusual type of the reverse :—

Obv.—Bearded head of Asklepios r., laureate.

Rev.—ΦΙΛΕΤΑΙΡΟ[Y] Serpent and key.

Æ. Size, '6. Brit. Mus. [Pl. I., No. 5.]

The curious object which, with the serpent beside it, constitutes the reverse type of this coin, is no doubt a variety of key, and it should be compared with the keys occurring in Vase Paintings which Heydemann engraves in his paper, "Schlüssel und Spinnrocken."³² From its combination with the serpent, and the presence of Asklepios on the obverse, we may perhaps consider it as intended to represent the sacred key of his temple. The temple key-keepers (κλειδούχοι) of the Asklepieion on the southern slope of the Akropolis at Athens, are mentioned in inscriptions (Girard, *L'Asclépieion*, pp. 29, 30), and we know that a κλειδούχος of Hera was charged with the function of carrying the sacred keys in certain festivals (Girard, *ib.*). On fictile vases the key is a usual attribute of priestesses, and, with regard to the likelihood of such temple keys appearing on coins, we may mention that Dr. Imhoof-Blumer claims³³ to have found the sacred key of the sanctuary of the Argive Hera on the reverse of a silver coin of Argos which has the head of the goddess on the other side.

As also testifying to the Asklepiian worship during the autonomous period, we may claim perhaps the following coin :—

³² *Zeit. f. Num.*, Bd. III. S. 113—122.

³³ *Num. Zeitsch.*, Bd. III. S. 406 f.

Obv.—Head of Pallas r.

Rev.—[Φ]ΙΑΕΤΑΙΡΟΥ Coiled serpent with head r.,
in field, ΔΙ.

Æ. Size, '6. Brit. Mus.

The serpent *may*, of course, be here an attribute of Athene, whose head appears on the obverse; though on this set of coins there is no necessary connection between the Pallas-head of the obverse and the type which occupies the other side: even the coin with the seated Asklepios had Athene for its obverse. Before quitting the period now under discussion we must further refer to a symbol—probably Asklepiian—which occurs on the Pergamene cistophori. The most probable date assigned for the first issue of this class of coins is about the year B.C. 159.³⁴ The familiar types of the obverse and reverse—almost certainly of a Dionysiac import—are only varied by the change of monograms and symbols. Of these symbols there is one which occurs on a very large number of the Pergamene series. This is a short staff encircled by a serpent, the head of the staff consisting of a ball, above which is a dot evidently intended as a surmounting ornament, Pl. I. No. 7. This symbol is sometimes described as the thyrsus, sometimes—to adopt a convenient German compound—as the *Schlangenstab*, or snake-encircled staff of Asklepios. Probably it is not intended for the thyrsus, as the head of the thyrsus-shaft is almost invariably formed by a fir-cone, or is decorated with leaves of vine or ivy, though instances of its assuming a globular form are

³⁴ Barclay V. Head, *On the Chron. Sequence of the Coins of Ephesus*, pp. 61, 62. Pinder, *Ueber die Cistophoren*. Lenormant in *Rev. Num.*, 1867, p. 182 ff.

sometimes to be met with on coins.³⁵ It is most likely the staff of Asklepios, though, again, it is not usual for the latter object to be represented with a knob, which, when it does occur, is not so decidedly globular as here [cp. Pl. I. No. 10]. It would be unnecessary to dwell much on this symbol were it not that it seems to have been of some importance in connection with the issue of the cistophori at Pergamon. Upon a large number of these pieces there occurs, besides the name of the magistrate (*e.g.*, AP, BA, ΔH), the monogram ΠΥ (sometimes surrounded by a wreath), which stands for the Πρύτανης, or chief member of the municipal council,³⁶ under whose immediate authority we may suppose these coins to have been minted. Now, whenever the authority of the town council is thus indicated, it invariably takes along with it our symbol of the *Schlangenstab*.³⁷ Thus, the magistrate, ΑΣ . . . , when his coin is not countersigned by the Πρύτανης, has the *gorgoneion* as his symbol;³⁸ but when, as on a coin in the British Museum, ΑΣ appears together with ΠΥ, his symbol is changed for the *Schlangenstab*. Along with these traces of Asklepios on the autonomous coins of Pergamon it is convenient to mention here, though it belongs strictly to the next period, the similar *Schlangenstab* occurring on the Pergamene cistophorus of the Proconsul C. Claudius Pulcher, B.C. 55—53.³⁹

³⁵ The head of the snake-encircled staff whenever it occurs on these cistophori is invariably a distinct ball, and cannot well be an unskilful artist's representation of a cone. When, on these coins, the artist wishes to represent the thyrsus—not entwined by the serpent, but filleted in the usual way—he gives it a distinctly coniform top.

³⁶ Lenormant, *La Mon. dans l'Ant.*, tom. iii. p. 61.

³⁷ Pinder, *u.s.*, p. 544.

³⁸ Pinder, *u.s.*, p. 56, No. 86.

³⁹ Pinder, *u.s.*, p. 569, No. 184.

III. In B.C. 133 the kingdom of Pergamon became a Roman province; and a consideration of the coins of its capital from that date onwards till the time when Augustus assumed the imperial title must next occupy our attention. During this period the only deity, besides Asklepios, who claims an important place upon the coinage is Athene, whose presence we have before noted on the coins. The number of types relating to Asklepios is considerable. The first which may be referred to is one having for its obverse the head of Pallas, and on the reverse a figure of Asklepios standing [Pl. I. No. 4. Æ. Size 1. Brit. Mus.]. The god, who faces the spectator, is clad in a *himation* which reaches to the feet, and which passes over his left shoulder and under the right arm, leaving that arm and the greater portion of the upper part of his body bare. He holds in his right hand the *Schlangenstab*; his left, covered by the mantle, is placed against his side. In the present instance, the arm which holds the staff adheres closely to the side; on another specimen [Brit. Mus. Coll.], otherwise similar, the god seems to be in a more meditative attitude, and leans more on the staff which reaches to his right arm-pit. This is the first occurrence on the coins of Pergamon of that well-known type which, with a slight variation in the position of the head, became so popular in representations of the God of Healing both at this city and elsewhere throughout the Greek and Roman world. From what precise original it was derived it is difficult to say. Hardly from the statue of Phyromachos, for that, as we have seen, was more probably a seated Asklepios, and in any case it was carried off from the city about the middle of the second century B.C. Perhaps, as in the case of the seated figure, we ought again to refer back to the school of Pheidias. Overbeck,⁴⁰ while suggesting with

⁴⁰ *Griech. Plast.*, I. 243.

great probability that it is Alkamenes who originated the ideal type of Asklepios, even supposes—though this is apparently only a conjecture—that the standing figure of the deity which occurs on tetradrachms of Athens⁴¹ [Pl. I. No. 6] is a motive derived from the statue of the god made by this famous pupil of Pheidias for Mantinea. But from whatever original the Pergamenes derived it, it was a conception embodied not only in representations on their coins, but also, it would seem, in a well-known temple statue of the god. That a statue of Asklepios, standing, as on the coin now under discussion, existed at Pergamon in later times, may not only be surmised from this reverse, but from the representation on several of the later pieces of a distinct statue. In two instances to which we may refer, one under Commodus [Pl. II. No. 10], the other under Caracalla [Pl. III. No. 5], we have an evident statue, the ordinary standing figure being placed upon a pedestal. On another coin of Commodus we have precisely the same figure standing in a temple which is evidently his own [Pl. II. No. 1]. From the general attitude in which the God of Medicine was represented, we pass to the treatment of the hair and features. And here, it must be confessed, our Pergamene coins are disappointing. That noble ideal of the God of Healing which we may still not imperfectly realise whilst contemplating in our own Museum the head of the colossal Melian statue, that ideal which tempered the celestial majesty of Zeus with the benevolence of some kindly physician of earth, finds on these late copper coins scarcely any expression, however faint. Perhaps the best head occurs on the little

⁴¹ Not earlier than the third century B.C. Cp. Beulé, *Les Monnaies d'Athènes*, pp. 332, 333.

coin figured in my first plate (No. 11) [*Æ. rev. Schlangenstab. Brit. Mus.*]. It may be compared with the rougher and still less expressive countenance on Nos. 12⁴² and 8 in Pl. I. At last (and probably not very early in the Imperial period), the artist has to adopt the cautious expedient of placing a serpent before the head in order to ensure its correct attribution [Pl. I. No. 17], and wishing to represent the eponymous hero of Pergamon, he attaches the label ΠΕΡΓΑΜΟΣ to a head not easily distinguished from that of Asklepios, whose staff appears on the reverse. With regard to the treatment of the hair, we find in the facing figures that it is long, and often (apparently) slightly arched over the forehead, flowing down on each side of the head, as it does on the head found in Melos. This was no doubt its arrangement in the later Pergamene temple-statue (cp. Pl. I. No. 4, with Pl. II. Nos. 1, 10). Where only the side face is represented, an attempt is made to give some idea of the hair upraised on the forehead [Pl. I. No. 8; Pl. I. No. 12], in which respect the head of the God of Medicine may be distinguished from that of Hades or Sarapis, otherwise not dissimilar in conception: in the case of the two latter deities, the hair generally hangs down straight on the forehead, imparting to their countenances a gloomier or more melancholy aspect.⁴³

With regard to the reverse types during this period, the standing figure, so common afterwards, only occurs, so far as I know, on the set of copper coins of the larger

⁴² Assigned to Pergamon, though uninscribed.

⁴³ Winckelmann, *Hist. of Anc. Art among the Greeks* (trans. Lodge, 1850), p. 110. Cp. Overbeck, *Griech. Kunst Mythol.* (Zeus), p. 71, p. 568.

size, with obverse, head of Pallas [Pl. I. No. 4]. The two commonest reverse-types are:—

- (1.) **ΑΣΚΛΗΠΙ[ΟΥ] ΣΩΤΗΡ[ΟΣ]**. Serpent coiled round staff with knob at the top. (*Obv.* head of Asklepios r.) Æ. Size, .6, Brit. Mus. Pl. I. No. 10.
- (2.) **[Α]ΣΚΛΗΠ[ΙΟΥ] [Σ]ΩΤΗΡΟΣ**. Netted omphalos around which a serpent is coiled, with head to r. (*Obv.* head of Asklepios r.) Æ. Size, .75. Brit. Mus. Pl. I. No. 8.

On some specimens otherwise similar to (1), the staff has no top. On other pieces, possibly of Pergamon though they are uninscribed, with a head probably of Asklepios for obverse, the reverse has the serpent coiled round an extremely crooked staff (Brit. Mus. Coll.). The Asklepiian staff is very commonly, though not invariably, represented on the monuments as crooked or knotted; hence the ingenious remark of Festus, “*Bacillum habet nodosum quod difficultatem significat artis*” (his staff is knotty like his craft). On one or two specimens the serpent is found alone without the staff. The reverse of (2) calls for a few remarks. Here we find Asklepios assuming the title of *Σωτήρ*, a title characteristic of the light in which he was regarded by his worshippers at this period, and which had been originally applied pre-eminently to Zeus.⁴⁴ This epithet was attached to the God of Healing with great frequency in later, and especially Roman, times. Aristides calls him *Σωτήρ τῶν ὄλων*, and he is constantly styled in later inscriptions **ΑΣΚΛΗΠΙΟΣ ΣΩΤΗΡ**.⁴⁵ In an inscription found at Verona we have the dedication *Ἀσκληπιῶ Περγαμηνῶ, Ὑγεία, Τελεσφορίωνι*,

⁴⁴ Müller, *Dissert. on Eum.* (Eng. trans.), pp. 192—196.

⁴⁵ C. I. G., Nos. 3577, 5974; and see Boeckh, C. I. G., Index No. III., s. v. *Ἀσκληπιος*.

θεοῖς σωτήρσι πόλις.⁴⁶ The object around which the serpent is coiled is generally (and perhaps rightly) denominated the netted omphalos. The omphalos is, of course, more properly the attribute of Apollo, and on coins of Antiochus I. and his successors we have the well-known reverse type of Apollo seated on the netted omphalos. On a Pergamene coin of Commodus (Pl. I. No. 20), we find an object standing beside the God of Medicine which is certainly meant, I think, for the omphalos, though it is small and rudely represented. In marble statues of this deity an omphalos, which is in certain instances netted, is sometimes to be seen standing beside him, a globe occasionally taking its place. Of this substitution an instance occurs on a Roman denarius of Caracalla.⁴⁷ (Pl. I. No. 21, Brit. Mus.) The omphalos Asklepios probably derived through his connection with Apollo; for the great Sun-God, having himself also a medical rôle, was declared in legend to be the father of the God of Medicine.⁴⁸ On the coin next to be mentioned we have also another Apolline attribute passing over to Asklepios.

Obv.—Head of Apollo, laur., r.

Rev.—ΑΣΚΛΗΠΙΟΥ ΣΩΤΗΡΟΣ. Tripod.

Æ. Size 7. Brit. Mus.

⁴⁶ The city which dedicated this is uncertain. C. I. G., No. 6753.

⁴⁷ Unfortunately, marble statues of Asklepios, or statues assumed to be of Asklepios, have suffered much at the hands of the modern restorer. The omphali standing by the statues engraved in Wieseler-Müller, *Denkmäler*, Pl. LX. No. 770, Pl. LX. No. 775, are not, however, stated to be restorations, and the figure (at any rate of Pl. LX. No. 770) is probably that of Asklepios. The globe stands by a beardless figure called Asklepios in Pl. LX. No. 776.

⁴⁸ Cp. the representations of Apollo with the *Schlangenstab* in *Zeitschrift f. Num.*, vol ix. (1881), pp. 139—141.

The tripod is not usually met with in connection with Asklepios. On a Pompeian wall-painting⁴⁹ we have a scene (laid, we may suppose, in one of the mountain glens of Thessaly) which brings before us three deities of healing—Asklepios with his staff, in meditative attitude, Apollo crowned with his laurel-wreath, and Cheiron, the uncouth but kindly preceptor of both these divinities. In this case we see raised upon a pedestal the tripod, as if a symbol common to all three. On one tablet of an ivory diptych,⁵⁰ of a late period of art, which is now in the Mayer Collection at Liverpool, we have Hygieia feeding a serpent which is twisted round a tripod.

Upon the specimen described below, Hygieia, who is generally called the daughter—sometimes the wife—of Asklepios, makes her first appearance on the Pergamene currency.

Obv.—ΑΣΚΛΑ . . . [= magistrate's name]. Head of Hygieia, before (and behind ?) which is a serpent.

Rev.—ΑΣΚΛΗΠΙΟ[Υ] ΚΑΙ ΥΓΙΕΙΑΣ. Omphalos around which a serpent is coiled.

Æ. Size, .6. Brit. Mus. Pl. I. No. 9.

The object on the reverse round which the serpent is coiled is narrower and more pointed than the netted omphalos described above (Pl. I. No. 8). It is more like the snake-encircled object—described in the British Museum Catalogue as an egg—which is found standing beside Apollo on Imperial coins of Bizya in Thrace.⁵¹ It may, however, be merely intended for the netted omphalos.

Telesphoros, the other subordinate medical deity who is

⁴⁹ Wieseler-Müller, *Denkm.*, Pl. LXII. n. 793.

⁵⁰ Wieseler-Müller, *Denkm.*, Pl. LXI., n. 792 b. Maskell, *Ivories*, p. 21.

⁵¹ Brit. Mus. Cat. Grk. Coins, *Thrace*, Bizya, No. 9. Cp. No. 8.

found associated with Asklepios, does not seem to appear on the coins until the time of Hadrian.⁵²

Obv.—Head of Hadrian.

Rev.—Telesphoros standing, facing, wearing mantle, which reaches nearly to the feet, with pointed hood.

Æ. Brit. Mus. Coll. Size, '65. [Cp. Pl. I. No. 16, *obv.* (head of Dionysos ?)]

K. Ottfried Müller thought that in this strange little divinity, whose mantle and pointed hood enshrouded head and body, we had a personification of hidden vital power; others have seen in him a genius of convalescence, or the renewing of life under the form of a child. In the opinion of Boeckh and Welcker,⁵³ however, both the name and functions of Telesphoros should be connected with the initiation (*τελεσφορία*) and the mystic rites (*τελεται*) which had at Pergamon much importance in the temple-treatment of the sick. In any case, his worship originated at Pergamon,⁵⁴ and, so far as I can discover, there is no evidence of the existence of a god named Telesphoros at an earlier period than that indicated by our Pergamene coin of Hadrian.

IV. The Imperial coinage of Pergamon commences with Augustus, and is continued, with but unimportant intermissions, during the reign of his successors, till it finally ceases about the middle of the third century A.D. Before proceeding to examine such pieces as offer types

⁵² The small Pergamene coins with *obv.* Dionysos ? *rev.* Telesphoros (Pl. I. No. 16) [Cp. Mion. Sup. t. v., "Pergamus," Nos. 870, 874, 875], as well as the similar specimens with *obv.* head of Pallas, *rev.* Telesphoros standing, facing, which occur in the Mysian district at Gargara, Pitane, and Poroselene, cannot certainly be assigned to an earlier time than the reign of Hadrian.

⁵³ *Gr. Götterl.* Bd. II. s. 740.

⁵⁴ Cp. Boeckh, C. I. G., on inser. No. 511, and Paus., II. 11, 7.

important for our purpose, it will be well to insert here a list which I have drawn up giving the number of types relating to Asklepios and his companion divinities which occur on the money of the successive sovereigns. Although this list cannot of course lay claim to be based upon *all* the Imperial Pergamene coins in existence, it may perhaps be accepted as giving approximate results, and as representing at the *lowest* computation the number of Asklepiian subjects which occur during the several reigns.

Emperor, &c.	Date.	Number of Asklepiian Types. ⁵⁵
Augustus (Aug. and Livia) .	B.C. 27—A.D. 14	None.
Tiberius (Tiberius and Livia) .	A.D. 14—A.D. 37	1 ?
Caligula	37—41	None.
Claudius	41—54	None.
Nero	54—68	None.
Galba	68—79	None.
Otho		
Vitellius		
Vespasian		
Titus		
Domitian	79—81	None.
Nerva	81—96	2
Trajan	96—98	[No coins.]
Hadrian	98—117	None.
Sabina	117—138	3 (+1 ?).
Ælius Cæsar	circ. A.D. 137	1
Antoninus Pius	136—138	1
Marcus Aurelius	138—161	11
L. Verus	161—180	9
Faustina, jun.	161—169	4 (+1 ?).
Commodus	Died 176	6
Pertinax, Julianus	177—192	22 (+4 ?).
	193	[No coins].

⁵⁵ The numbers represent distinct varieties of type: where, however, under the same Emperor, a single type is employed by several of the magistrates of Pergamon (*στρατηγοὶ*) this type is reckoned separately each time it is accompanied by a new magistrate's name.

Emperor, &c.	Date.	Number of Asklepian Types.
Sept. Severus (S. Sev. and Domna) (S. Sev. and Carac.)	193—211	6
Julia Domna	193—217	1
Geta (alone)	Died A.D. 212	3
Caracalla (Caracalla and Geta)	198—217	24
Macrinus	217—218	[No coins.]
Elagabalus	218—222	2
J. Maesa	.	1
Alex. Severus	222—235	3
J. Mamaea	Died A.D. 235	2
Maximinus	235—238	1
Maximus	235—238	1
Gordianus I., II. Pupienus, Balbinus	238	[No coins.]
Gordianus III.	238—244	6
Philip I. or II.	249	1
Trajan Decius	249—251	1
Etruscilla	.	1
Herennius Etruscus	251	1
Hostilianus	.	None.
Trebon. Gallus	251—254	[No coins.]
Æmilianus	253	[No coins.]
Cornelia Supera	.	1
Valerian, sen.	253—260	1
Valerian, jun.	.	None.
Gallienus	253—268	3
Saloninus	Died A.D. 259	None.
Salonina	Died after A.D. 268	3

It will be seen from the above table that beyond a doubtful instance under Tiberius⁵⁶ no types having a reference to our divinity occur till the time of Domitian. Under Hadrian we get a few examples, but it is in the period extending from A.D. 138 to A.D. 217 that the types which we are in search of appear with most frequency.

⁵⁶ Mion., t. 2, p. 592, No. 545.

Their greater abundance at this period is very much what we should, on other grounds, have expected. Both Antoninus and Aurelius were distinguished by their zeal in promoting the public worship of the gods, and Antoninus in particular adorned with new edifices the Argolic Epidaurus, the chief centre of the worship of Asklepios in Hellas proper. The relations of Caracalla with the great Pergamene divinity were, as will be noticed presently, of peculiar intimacy. The break in the series under Macrinus can be accounted for, and will also be noticed further on. From the accession of Elagabalus (A.D. 218) till the death of Gallienus (A.D. 268) we have an almost consecutive series of Asklepiian types, although the instances under the various reigns are not numerous—the total number of types, whether connected with Asklepiian or other subjects, being, in fact, not at all comparable to the number of the types which occur under the emperors who preceded Macrinus. Besides the Asklepiian, a variety of other subjects occur as coin types; the various types, indeed, which have no reference to Asklepios quite equalling or surpassing in number those which do make allusion to the God of Medicine. But the important point to notice for our present purpose is that no other one subject or deity is represented with anything like the same frequency or constancy as Asklepios. At the most we may set under Commodus four or five types relating to Pallas; under Aurelius and L. Verus one or two which refer to Herakles; but even these deities, and especially others, like Zeus, Dionysos, and Cybele, only make a fitful appearance here and there, and again retire, almost without having made their presence perceptible. They have, in fact, all the character of casually adopted types, and not, as in the case of Asklepios, of

subjects deliberately chosen to give outward expression to a religious belief which was widely, and no doubt sincerely, accepted.

The Pergamene coins of Augustus and his successor offer nothing for our purpose, and their general character is concisely stated by Eckhel,⁵⁷ who says, speaking of the former: "Huic non mortuo, sed vivo quoque honores divinos habuere Pergameni, quod in utramque partem eorum testantur numi." It was under Tiberius, however, that the right of affording asylum was confirmed by the Emperor and Senate to the Pergamene temple of Asklepios, at a time when the claims advanced by many other Greek cities to a similar privilege were disallowed.⁵⁸ During this reign there occurs for the first time in the case of Pergamon the record of alliance, or *ὁμόνοια*, with another city. As these alliance-coins, whether issued by Pergamon itself or by cities in alliance with Pergamon, most frequently bear Asklepiian types, it will be more instructive to group them together at this point, than to leave them for isolated mention under the various reigns in which they appear. The extent to which religion among the Greeks was interwoven with every incident of civil and domestic life, the manner in which it found formal expression even in public festivities and State affairs, is well illustrated by the custom of recording city alliances—often purely political—by representing on coins the typical divinities of the citizens party to the alliance. Sometimes, indeed, an alliance was recorded in more secular fashion—for instance, by personifying the Demos, or the city; but in the case of Pergamon we shall find

⁵⁷ *Doct. Num. Vet.*, vol. ii. p. 465.

⁵⁸ *Tacit., Ann.* III. 63.

this mode of record rare, and it is important to note how almost from first to last Asklepios retained his position as the representative deity of the city. The following table gives the number of Imperial coins attesting alliances between Pergamon and other places, and the number of Asklepian types which occur upon those coins.

Allied Cities.	Period of Alliance.	Number of Alliance Coins. ⁵⁹	Number of Asklepian Types.
Sardis and Pergamon .	Tiberius, Domitian	5	? 1
Ephesus, Smyrna, and Pergamon	Domitian, Antoninus Pius	2	2
Pergamon and Ephesus .	Domit., M. Aurel., Commodus, Caracalla	15	11
Ephesus and Pergamon .	Gallienus	1	1
Mytilene and Pergamon .	Ant. Pius, Valerian I. . . .	3	3
Adramyttium and Pergamon	Ant. Pius	1	1
Laodicea and Pergamon .	M. Aurelius, Faustina jun., Caracalla	3	2
Smyrna and Pergamon .	Caracalla	9	6
Pergamon and Nicomedia .	Gordian III. . . .	3	3
Hierapolis and Pergamon .	Philip I. (?)	1	1
	Total	43	30 (+1 ?).

The earliest *δμόνοια*, that of Sardis and Pergamon under Tiberius, is (apparently) indicated merely by the personified Demos of each city clasping the right hand of his companion, in symbol of amity. On another specimen one Demos is crowned by the other. Mionnet mentions two coins of this period which he says have the Lydian

⁵⁹ As in the former table, the numbers refer to distinct varieties of type.

Jupiter and Asklepios, and Herakles extending his hand to Pergamos. But I suspect he has mistaken the personified Demi for deities.⁶⁰ Under Domitian, in the alliance between Ephesus, Smyrna, and Pergamon, we get Asklepios standing between two figures of Nemesis;⁶¹ but it is not till the time of Aurelius and Commodus that the god begins to take up a more permanent position in the indication of the *ὁμόνοια*. The numerous alliance coins of Pergamon and Ephesus nearly all belong to the reign of Commodus. The most usual mode of representation, and one which we find as late as Gallienus,⁶² is to place side by side the simulacrum of the Ephesian Artemis and the statue of Asklepios. In one case, these deities are crowned by a winged victory who hovers in the air above them, with a wreath intended for the head of each (Pl. I. No. 20, Brit. Mus.). In another instance the two deities appear, facing, in tetrastyle temples (Brit. Mus.), while we find yet another form of commemorating the *ὁμόνοια* on the coin figured in Pl. I. No. 19 (Brit. Mus.), on which little images of the Pergamene and Ephesian divinities are held in the right hands of bearded and youthful personages. Sometimes between these standing figures an altar is seen, lighted as if prepared for solemn sacrifice.⁶³ It is curious to notice that on the alliance coin issued under Caracalla, although Asklepiian types are then so abundant at Pergamon, the city is not represented by Asklepios, but by Zeus (probably Zeus Philios), who holds in his right hand the eagle,

⁶⁰ Mion., t. ii. p. 595, No. 545; Sup. t. v. p. 431., No. 948.

⁶¹ Mion., Sup. t. v. p. 431, No. 949.

⁶² Mion., Sup. t. v., No. 1172, "Pergamus."

⁶³ Mion., t. ii., No. 602, "Pergamus."

Artemis standing for Ephesus as usual.⁶⁴ The alliance coins of Smyrna and Pergamon all belong to the reign of Caracalla, and present us with a variety of types. Sometimes a turreted female figure (the City of Pergamon) extends her right hand to the Amazon who represents Smyrna; or two temples are seen as witness to the alliance. When Asklepios appears for Pergamon, he is either figured standing as usual between the two figures of Nemesis,⁶⁵ or his image is held in the outstretched right hand of the turreted Amazon (Smyrna) [Pl. II. No. 7, Brit. Mus.]. The Pergamene deity is also seen standing in his usual attitude by the side of Fortune,⁶⁶ or again standing before a seated figure of Cybele.⁶⁷ A coin of Aurelius inscribed **ΛΑΟΔΙΚΕΩΝ ΠΕΡΓΑΜΗΝΩΝ ΟΜΟΝΟΙΑ** shows the figure of Zeus Laodiceus just as it appears on the other money of Laodicea issued under the same Emperor. Asklepios, who is slightly shorter in stature than his companion, stands on the right, turned towards the other deity, who holds in his right hand the eagle [Pl. II. No. 2, Brit. Mus.]. Under the younger Faustina the same alliance is, however, represented not by male, but by female figures—turreted personifications of their respective cities. This change of representation was perhaps intended as a sort of compliment to the Empress. In the case of Nicomedia we get a further variation of the alliance type, Asklepios and Demeter being portrayed standing together on the prow of a vessel [Pl. II. No. 9, Brit. Mus.].⁶⁸

⁶⁴ *Catal. del Mus. naz. di Napoli*, I. Monete Greche (1870), No. 7940.

⁶⁵ Leake, *Num. Hell. Supp.*, "Asia," p. 79.

⁶⁶ Brit. Mus. Coll.

⁶⁷ Brit. Mus. Coll.

⁶⁸ Among the alliance coins I have not of course included the

Returning to our review of the more remarkable coins issued during the reigns of the successive emperors, our attention is first arrested by the coins minted under Hadrian; indeed, as was before observed, no Asklepiian devices occur with certainty before the time of this sovereign. Under Hadrian,⁶⁹ we find Asklepios as he is henceforth almost invariably represented on coins [cp. Pl. I. No. 15 (of Antoninus Pius)], holding in his right the *Schlangenstab*, his mantle wrapped round in the familiar way so as to leave the right arm and chest bare, and with his head not facing, but turned towards the left, as if addressing a companion. The head of Asklepios is so constantly turned in this way, even when he appears standing *alone*, that it would almost seem that the coin-engraver who first introduced this type copied it in a slavish manner from an Asklepios which formed part of some well-known *group* in bronze or marble which perhaps represented Hygieia and her father conversing, in an attitude similar to that which we find, for instance, on the coin of Antoninus Pius in Pl. I. No. 14; cp. Pl. II. No. 8. When once this Asklepios was, as it were, detached by the artist from the sculptured group and transferred to coins, the type would be simply copied by other cities which wished to give on their money a representation of Asklepios, without being able to exert any independent effort of creative skill. During this reign, as has already been noticed, Telesphoros first appears, in his

specimens reading ΠΕΡΓΑΜ ΝΙΚΑΙΕΩΝ ΚΙΛΒΙΑΝ (Mion., Sup. t. v. No. 1131, "Pergamus." Cp. *ib.* No. 1097); on which coins see Kenner, *Die Münzsamml des Stiftes St. Florian*, pp. 160—162.

⁶⁹ Mion., Sup. t. v. No. 977, "Pergamus."

usual quaint costume,⁷⁰ and on a coin of Ælius,⁷¹ Asklepios—his head turned towards the left—is seen in company with the little Telesphoros who stands by his side on the left, reaching no higher than the top of the staff which is held by the God of Medicine. Under Hadrian, also, Hygieia appears, represented feeding the serpent from her patera—a familiar motive which now appears for the first time on the Pergamene coins. Mionnet⁷² cites from Vaillant (*Num. Gr.*) a coin which, if we could rely on its genuineness, would be of high interest. It has the head of Hadrian on the obverse, and the following is the description given of the reverse: “Jupiter couché sur le *lectisternium*; à côté de lui, une femme à demi-nue assise; derrière, un homme paraissant à servir à table.” Æ., size 6. The scene represented on this coin is evidently one of those banquets which form the subject of a large and well-known class of Greek reliefs. A very large number of these reliefs are undoubtedly sepulchral, but it seems that a small number must be considered as votive offerings to Asklepios.⁷³ On a very curious coin of Bizya in Thrace⁷⁴ we get a male and female figure reclining at a banquet, with a servant drawing wine, as on the set of reliefs just mentioned; and the presence of the *Schlangenstab* and other considerations seem to prove that Asklepios and Hygieia are there intended to be represented. It is, of course, not safe to rely on Vaillant’s state-

⁷⁰ See above, p. 26.

⁷¹ Brit. Mus. Coll., Æ., size 8.

⁷² Sup. t. v. No. 976, “Pergamus.”

⁷³ For authorities see *Zeit. für Num.*, vol. v. p. 320 ff; and vol. viii. p. 101 (notes); and reff. in *Bull. de Corr. Hell.*, vol. ii. (1878), pp. 74, 75.

⁷⁴ See Von Sallet in *Zeit. f. Num.*, vol. v. p. 320 ff.

ment that the figure on his coin is Jupiter; it is no doubt only a bearded male figure; but attention should be directed to the specimen as possibly furnishing—if genuine—another example of the very rare class of types to which the Bizyan coin belongs.⁷⁵ A coin of Hadrian's wife, Sabina, supplies us with a representation of Koronis, whom the Asklepiian legend most widely current made the mother of the god [Pl. I. No. 13, Brit. Mus.]. The name **KOPΩNIK** placed on the right of the coin insures a correct attribution. This figure wears a long garment reaching to the feet, and her head is veiled; the right hand is raised to the left shoulder, her left being laid straight across the body at the waist.

The types referring to the God of Medicine under Antoninus Pius, though they then first begin to occur in considerable numbers, are not of high interest. Among them we find, for the first time at Pergamon, the familiar group of Asklepios in company with his daughter. The former has his head turned to the left, as if conversing with Hygieia, who, turned towards the right, feeds the serpent from the patera held in her outstretched left hand [Pl. I. No. 14, Brit. Mus.]. A variation of this group occurs under the next Emperor,⁷⁶ and is repeated under Lucius Verus [Pl. II. No. 8, Brit. Mus.]. In the latter instances the female figure holds a serpent in her right hand, but her left, which is raised, appears to grasp the end of her veil. It should be noted that her head is

⁷⁵ Cp. Panofka, *Ask. u. Asklep.*, p. 304, who quotes from Sestini (see *Mion.*, Sup. t. vii. p. 447, No. 604) a coin of Hadrian of Thyateira in Lydia which has "Asklepios" and his "wife" reclining on a couch; the horse, and serving boy.

⁷⁶ Brit. Mus. Coll., Æ., size 1·7.

veiled. On other coins of this reign Asklepios himself appears crowned by Pallas⁷⁷ and also by Zeus.⁷⁸

Under Aurelius, the most noteworthy coin is that reproduced in Pl. II. No. 3, and it is unnecessary to do more than mention in passing certain other subjects which occur: for instance, a seated Zeus, who holds in his right hand a small figure of Asklepios;⁷⁹ a serpent coiled upon an altar (Brit. Mus.); and the great Pergamene Triad, with Telesphoros in the centre.⁸⁰ Of the coin about to be discussed there is a specimen in the British Museum, though its condition is, unfortunately, extremely poor. There is a similar specimen described in Mionnet,⁸¹ which has, however, been retouched, apparently in the inscription:—

Obv.—Head and titles of M. Aurelius.

Rev.—ΕΠΙ ΣΤΡ [ΚΑ]ΛΛ[Ι]ΣΤΕΟΥΣ? Statue of Asklepios, facing, holding in r. *Schlangenstab*. The statue stands upon a very tall pedestal which rises above the exergual line, the latter dividing the coin into two nearly equal divisions. Above the exergue, on each side of the statue, the reclining river-gods, Seleinos and Keteios; below exergue, ΣΕΛΕΙΝΟ[Σ?]ΚΗΤΕΙ[ΟΣ?] ΠΕΡΓΑΜΗΝΩΝ, and on each side, a wreath. Æ. Pl. II. No. 3 (Mionnet's sulphur cast).

Both in attitude and in the arrangement of the hair, the figure of Asklepios exactly corresponds to that which afterwards appears on a coin of Caracalla [Pl. III. No. 5]. The presence of the god between the two rivers might be most naturally explained as giving us the topo-

⁷⁷ Mion., Sup. t. v. No. 999, "Pergamus."

⁷⁸ Mion., t. ii. No. 569, "Pergamus."

⁷⁹ Mion., t. ii. No. 578, "Pergamus."

⁸⁰ Mion., t. ii. No. 584, "Pergamus."

⁸¹ T. ii. p. 602, No. 582.

graphical indication that his temple was situated in the city, between the two rivers which flowed on the eastern and western sides of the Akropolis. It is now, however, almost certain that the Pergamene Asklepieion was situated, not within the city itself, as Choiseul-Gouffier and the older topographers supposed, but, as we have already stated, a little distance out of the town, west from the Akropolis. The statue of Asklepios on this coin may, therefore, be taken as convertible with the city of Pergamon itself, as a comprehensive symbol of the great cultus with which the religious life and energies of the city were bound up; just as on another coin of the same Marcus Aurelius⁸² we find Fortune, who doubtless symbolises the material prosperity of the city, represented standing with Keteios and Seleinos at her feet, the latter grasping each other's hands.

The coin of Lucius Verus next to be described is of much interest:—

Obv.—Head and titles of L. Verus.

Rev.—ΕΠΙ ΣΤΡ[Α Α]ΤΥΛ ΚΡΑΤΙ[ΠΠΟΥ]
[ΠΕΡΓΑΜΗΝΩ]Ν ΔΙΣ ΝΕΟΚΟ. Asklepios standing with staff, his head turned towards l.; on his left side is a small naked figure, whose right hand is raised. Between the two figures, rat gnawing uncertain object.
Æ. Brit. Mus. [Pl. II. No. 4.]

Panofka, who has engraved a similar coin⁸³ from one of Mionnet's casts, states that the smaller figure holds in his right hand a torch, and supposes him to be Euamerion, a divinity corresponding to Telesphoros, who was worshipped at Titane as The Morning. With regard to the animal

⁸² Mion., t. ii. p. 602, No. 583.

⁸³ *Ask. u. Asklep.*, Pl. II. No. 4; p. 295. Mion., t. ii. p. 603, No. 589.

between the two figures which Panofka took for a sow, there was more difficulty; but the German archæologist, with all the ingenuity of despair, boldly asserted that this υ s was an abbreviated form of Ἰγίεια, and even obscurely hinted that a *verres* was not such a bad symbol to occur under an Emperor whose name was Verus. We need not linger long over Panofka's explanation, because the animal in question is certainly not a sow but a rat. The little animal is gnawing food or some other object, and exactly resembles the small bronze figures of rats gnawing a fruit or cake which are frequently to be met with in museums. What, then, does the rat here signify? So far as I am aware, the rat is nowhere mentioned as an attribute of Asklepios. It is pre-eminently the symbol of the Apollo surnamed Σμυθεὺς, or Σμίνθιος. In a statue by the famous Skopas, this divinity was portrayed with one foot placed upon a rat; and certain agate stones have been found sculptured with small images of rats, which rest upon a base inscribed with the words **EIMI ΣΜΙΝΘΕΩΣ**.⁸⁴ The god was considered the destroyer of these much-dreaded pests of ancient agriculture, of whom we hear much in the authors, Strabo saying that in Spain their great multitude often caused pestilential diseases. With regard to the appearance of this symbol on the Pergamene coin, what I would now suggest is that it points to some actual association at Pergamon of the cults of Asklepios and Apollo Smintheus, amounting, perhaps, almost to an assimilation of the two deities. That such an explanation is not a purely arbitrary one, I believe I can show on two grounds. In the first place, we do actually find that Asklepios and Apollo

⁸⁴ *Rev. Num.*, 1858, p. 38.

Smintheus are associated together, and that too at Alexandria Troas, the very stronghold of the worship of the latter. Thus upon a cippus found in the ruins of that place, we read a dedication to Apollo Smintheus, to Asklepios Soter and the deities named Moxyneitai;⁸⁵ and on a sarcophagus found in the Troad, Asklepios Soter is again associated with the same Apollo.⁸⁶ But, beyond this, we can show at Pergamon itself actual traces of the association of these two divinities just about this period as well as a little after it. On a coin of the city issued under Antoninus Pius [Pl. II. No. 6], we find two deities standing, facing; one is Asklepios, and the other is the Sminthian Apollo, represented with his patera and bow precisely as on the coins of Alexandria Troas. At the first glance the type would seem to indicate an alliance between the two cities. This, however, is not the case, as there is no mention of *ὁμόνοια* or of any city besides Pergamon, the legend of the reverse being:—**ΕΠΙ ΠΡΥ ΝΥΜΠΙΔΙΑΣ ΒΕΡΟΝΙΚΗΣ ΠΕΡΓΑΜΗΝΩΝ**. I should note that an exceptional and apparently a specially sacred character is given to this coin by its being struck, not under the supervision of the civil magistrate (*στρατηγός*), as is almost invariably the case, but by a *πρύτανις*, who in this instance is a woman. Instances of a female *πρύτανις* are rare, and her functions seem to have been not civil but religious.⁸⁷ On the Greek Imperial coins of certain cities we sometimes find, indeed, the name of a priest associated in the inscription with the civil magistrate: sometimes the civil magistrate adds to his civic a

⁸⁵ C. I. G., No. 3577.

⁸⁶ De Witte in *Rev. Num.*, 1858, p. 32.

⁸⁷ C. I. G., Nos. 2415, 3953*d*.

religious title—for instance, **ΘΕΟΛΟΓΟΣ** on coins of Pergamon—or, again, a coin is struck by a *ιερεύς* alone.⁸⁸ As, however, at Pergamon *στρατηγός* is the almost invariable title on the coins, the sudden appearance of a female *πρύτανις*, alone, is remarkable. This coin of Antoninus cannot, of course, be later than A.D. 161, and our coin of L. Verus must fall between the years A.D. 161—169; so that in fact just at this period the connection of the Sminthian Apollo with the great god of Pergamon is thus made known to us from the coins. And still later, as the reverse type of a coin which bears on the obverse the heads of Septimius Severus and Caracalla [Pl. II. No. 5, Brit. Mus.], we again get Asklepios and the same Apollo in company. Asklepios, draped as usual, stands with his head turned towards his companion, while Apollo, who, as is often the case with Smintheus, appears without clothing, holds in the left hand his bow, while his right, which is extended over an altar placed between himself and his companion, doubtless held a patera. This coin is signed as usual by a *στρατηγός*. Who the small naked figure⁸⁹ standing by the God of Healing on the coin of Verus may be, I am unable to explain. His back is half turned to the god, and his right hand is raised with a curious action. He is not clinging to the clothing of Asklepios, as Panofka erroneously states, and in the Mionnet sulphur cast I can detect no traces of his holding a torch. The British Museum specimen here described does not help us, as the left hand of this figure is obliterated. I cannot help suspecting that the whole scene

⁸⁸ Lenormant, *La Monnaie*, t. iii. pp. 93—112.

⁸⁹ Compare the coins of Serdica (Thraciæ) in Mion., Sup. t. ii. p. 490, Nos. 1691, 1692.

may have reference to some mystic rites whether of initiation or divination.⁹⁰ For the rat was attached to the Sminthian Apollo, not only as an emblem of pestilence or destruction, but as a symbol of divination—*μαντικώτατοι ζῶων οἱ μῦες*, says Ælian. The editors of the *Élite des Monuments Céramographiques* think they have discovered in a vase-painting a scene of initiation connected with Apollo Smintheus.⁹¹ A female figure, supposed by them to be Telete (the initiation), seems to be welcoming to the mystic rites a youth who kneels before her. The latter is unclad, and between him and the female figure is a rat. Whether this scene is rightly interpreted, and whether the type of our coin may have any kind of connection with it, I will not decide; but I believe that the existence of some intimate relationship subsisting at Pergamon during this period between Asklepios and the Sminthian Apollo may be fairly considered as made out from the coins we have cited.⁹²

Caracalla is the only Emperor who can vie with Commodus for the number of his coins with Asklepiian types. We have already referred to the coins of the latter which represent the God of Medicine standing in his temple [Pl. II. No. 1], and we need now only mention the Telesphoros in a distyle temple or shrine [Pl. I. No. 18], and a specimen which presents us with the Emperor standing before a lighted altar, holding in his right hand the statue of Asklepios, while, behind, is Victory, who

⁹⁰ It may be a mere coincidence, but this coin alone, of all the Pergamene "medallions" which I have seen, is pierced as if intended to be worn as an amulet, the reverse side uppermost.

⁹¹ Tom. ii. pl. civ.

⁹² On the Sminthian Apollo, see especially De Witte in *Rev. Num.*, 1858, p. 1 ff.

crowns him.⁹³ The following description refers to a coin in the French Collection which is here photographed from the Mionnet sulphur cast of the original :—⁹⁴

Obv.—Head and titles of Commodus.

Rev.—ΕΠΙ ΣΤΡ ΠΑ ΓΛΥΚΟΝΙΑΝΟΥ ΠΕΡ-
ΓΑΜΗΝΩΝ Β ΝΕΩΚΟΡΩΝ. Statue of
Asklepios on pedestal, on each side of which
youthful centaur holding torch. Asklepios has
long hair flowing down on each side of the head ;
his r. holds *Schlangenstab* which reaches to the
armpit; his l. is laid straight across the body.
Æ. Size, 13½. [Pl. II. No. 10.]

The rôle of the centaurs in the Græco-Roman period of art is a varied one. Sometimes we find them harnessed to the car of Dionysos or of Herakles, and on coins of Pergamon we may see them drawing a chariot in which is a seated figure who is perhaps Zeus.⁹⁵ It is not uncommon, especially on sarcophagi, to find them, as here, with flaming torches. On a Pergamene coin of Caracalla and Geta cited by Mionnet⁹⁶ there are two centaurs holding torches in their hands, and carrying an image said to be of Asklepios; and on another coin of our city, of Lucius Verus, there is a figure, described as Asklepios, drawn in a chariot by two centaurs also holding torches.⁹⁷ This connection of centaurs with Asklepios, if it be not merely arbitrary and meaningless, may easily have been suggested by the legend which made the great centaur, Cheiron, his instructor in the healing art. The two centaurs standing with their torches on each side of the statue of Asklepios

⁹³ Mion., t. ii. No. 607, "Pergamus."

⁹⁴ Mion., t. ii. No. 600, "Pergamus."

⁹⁵ Mion., sup. t. v. No. 1068, "Pergamus."

⁹⁶ Sup. t. v. No. 1134, "Pergamus."

⁹⁷ Mion., t. ii. No. 593, "Pergamus."

have been explained as Morning and Evening on either side of the ἀγλαός θεός.⁹⁸ Pursuing, however, a hint of Welcker's,⁹⁹ we may, I think, with greater probability refer the torches which are here brought into close proximity with what appears to be the temple-statue of Asklepios to some actual peculiarities in his cultus. "There," says Aristides the Rhetor, speaking of Pergamon, "there, are kindly torches raised on high to all men by the god who invites them to himself: yea, and he lifts up Very Light."¹⁰⁰ Torches are mentioned in connection with the Incubations of Isis,¹⁰¹ and once, during the night time, when the little god Telesphoros appeared in dream to one of the sick who lay in a temple of Asklepios and seemed to dance around his neck, a light, as if from the sun, shone upon the wall opposite.¹⁰² And doubtless to many in those days, when, whatever provision there might otherwise be for the public health, no hospital as yet threw open its doors to the poor in sickness, that light which shone in the temple of the great Pergamene divinity must have truly seemed "a light of healing:"—*Sedentibus in regione umbræ mortis Lux orta est eis.*

With the accession of Caracalla the coins of Pergamon assume a well-marked and interesting character. They at once strike the attention by their great size, which gives them the appearance of medallions, though they bear the name of a σαρπηγός as usual. These large coins constitute the chief bulk of the Pergamene currency

⁹⁸ Panofka, *Ask. u. Asklep.*, p. 310.

⁹⁹ *Gr. Götterl.*, ii. pp. 742—744.

¹⁰⁰ Aristid., p. 520, ed. Jebb.

¹⁰¹ Aristid., p. 319, ed. Jebb.

¹⁰² Aristid., p. 315, ed. Jebb. With regard to the temple lighting see also Girard, *L'Asclépieion d'Athènes*, p. 72.

which bears the effigy of Caracalla. The types, moreover, are distinctly *personal* in subject, the Emperor himself figuring in nearly all of them. Thus we behold him in military attire standing between two ensigns,¹⁰³ or seated on his horse crowned by Victory, while before him is a trophy and captives.¹⁰⁴ The Blessed Gods appear but rarely on his coins, with the notable exception of Asklepios. Nor is this appearance of the God of Healing to be wondered at. Suffering both in mind and body, tormented by the frightful spectres of his father and murdered brother which stood before him in the night time, the Emperor had recourse to strange rites and invocations of the dead, and turned at last to the great God of Healing for his aid. In the year 214¹⁰⁵ he visited Pergamon, eager to seek the temple of Asklepios, and prepared to undergo the half-medical, half-ceremonial treatment to which a patient was there submitted.¹⁰⁶ The visit, indeed, proved of no avail, and but three years later Caracalla met his end by assassination. This royal visit, however, has left inefaceable traces on the coinage of this period; nor was Caracalla ill-disposed towards the city of the great god. It is known that he conferred upon the Pergamenes certain privileges;¹⁰⁷ and on one of his enormous coins of Pergamon, the reverse of which is entirely covered with inscription, we read the magnificent boast, **Η ΠΡΩΤΗ ΤΗΣ ΑΣΙΑΣ ΚΑΙ ΜΗΤΡΟΠΟΛΙΣ ΠΡΩΤΗ ΚΑΙ ΤΡΙΣ ΝΕΩΚΟΡΟΣ ΠΡΩΤΗ ΤΩΝ ΣΕΒΑΣΤΩΝ**

¹⁰³ Mion., Sup. t. v. No. 1099, "Pergamus."

¹⁰⁴ Mion., t. ii. No. 623, "Pergamus."

¹⁰⁵ This is Clinton's date. According to Eckhel (D. N. V., vol. ii. p. 468), Caracalla visited Pergamon in A.U.C. 968 (A.D. 215).

¹⁰⁶ Herodian, iv. 8.

¹⁰⁷ Dio. Cass., lib. lxxviii. sect. 20.

ΠΕΡΓΑΜΗΝΩΝ ΠΟΛΙΣ.¹⁰⁸ The coin figured on Pl. III. No. 1, may serve as a kind of introduction to this series. Upon this piece we see the Emperor, whom we may suppose to be entering Pergamon for the first time, seated on horseback, with his right hand raised to salute the city (represented by a female figure) who awaits him, holding in her right hand the great divinity of the place. On another coin, the Emperor, turned towards the city, seems to be delivering an harangue, while, behind him, a small image of Victory held by a male figure is placing a wreath upon his head.¹⁰⁹ Henceforth we constantly find the Emperor in company with Asklepios, and generally engaged in sacrifice. On the specimen in Pl. III. No. 4, the former may be seen extending a patera over the lighted altar which stands on the left of the god; at other times, a victim is about to be sacrificed. Of this we get an instance on the coin in Pl. III. No. 2 [Mion. sulphur cast], where Asklepios is seen standing in his temple; while before it is the Emperor, with a victimarius striking at a gibbous bull. The appearance of this bull, intended as a sacrifice to Asklepios, should be noted, as it elsewhere occurs very rarely, if indeed at all, in connection with him.¹¹⁰ On another of Caracalla's Pergamene coins we also find the same victim standing between the Emperor and Asklepios, for whom it is evidently designed as a sacrifice [Pl. III. No. 6]. It may be added that on a noteworthy coin of Pergamon issued under Septimius Severus and Julia Domna, we find, standing before a

¹⁰⁸ Brit. Mus. Coll., Æ., size 1·8.

¹⁰⁹ Brit. Mus. Coll.

¹¹⁰ A bull was one of the victims offered to Asklepios at Athens on the occasion of public festivals. See C. I. A., ii. No. 453*b*, line 16. Cp. Wieseler-Müller, *Denkmäler*, Th. ii. n. 792.

curious edifice, two statues of the same kind of bull [Pl. III. No. 8]. But it is not only on the coins of Pergamon that Caracalla records his sacrifice to Asklepios. We observe it forming the subject of the reverse type of an aureus issued at Rome in A.D. 215, the very year after his visit to the Asiatic city [Pl. III. No. 3]. On this coin, the Emperor, attended by a togated figure, is sacrificing with a patera held over a flaming altar. He is turned towards a temple, in front of which is a statue of Asklepios. It is also interesting to find an outburst of Asklepiian types on the bronze and silver money of Caracalla which was minted at Rome in this same year [*e.g.* Pl. I. No. 21]. The last coin of this reign which requires a detailed notice is one on which the Emperor is again seen addressing his devotions to the Pergamene god [Pl. III. No. 7]. On the reverse of this specimen Caracalla is represented in military dress, with his right hand upraised to salute a serpent entwined around a tree, its head towards the Emperor. In the area between the tree and the latter a figure of Telesphoros is seen, placed upon a pedestal. That the serpent who is here receiving adoration is Asklepios is rendered certain both by the presence of Telesphoros, and by a comparison of this piece with another of Caracalla's Pergamene coins,¹¹¹ on which Telesphoros is represented upon a pedestal placed, as here, between the Emperor and Asklepios, who is there depicted in the ordinary way. Although the serpent is an attribute of the God of Healing, which is almost invariably present, it is not usual to find the god represented as on the coin now under discussion. Serpents, however, were kept in many of his temples, and, indeed, were sometimes cou-

¹¹¹ Mion., t. ii. No. 635, "Pergamus."

sidered as the incarnation of the deity himself, especially in the transmission of his worship from one city to another. Thus, the people of Sikyon traced the origin of their Asklepios cultus to a Sikyonian woman who had brought the god from Epidaurus in the form of a serpent.¹¹² In the form of a serpent also the god was brought from Epidaurus to Rome. On a famous medallion of Antoninus Pius we see the serpent—that is, Asklepios—about to plunge from the vessel which has conveyed him into the waves of Father Tiber, who welcomes him with outstretched hand, and upon whose island the first Roman temple of the new divinity was afterwards erected. This medallion bears the inscription, **AESCVLAPIVS**.¹¹³

On the obverse of a good many of Caracalla's Pergamene coins, especially those of the largest module (Mionnet's size 13), we find, as a countermark, a wreath, and sometimes also the sign or letter **C**. On an alliance coin of Commodus, and on coins of Domna and Septimius Severus, we find the first of these two countermarks (the wreath) in conjunction with a small head of Caracalla also impressed as a counter-mark. Coins of Antoninus Pius, M. Aurelius, and Commodus are found counter-marked with the head of Caracalla alone. It is always somewhat hazardous to try to decide positively what such mint-marks may signify. Possibly, however, we shall here not be very far from the truth in explaining them thus. We may suppose that under Caracalla the Pergamene currency of the Emperor was eked out by the coins of his earlier predecessors (Ant. Pius, M. Aurelius, Commodus), which he made current

¹¹² Paus., ii. 10, 3.

¹¹³ Froehner, *Les Médailles*, p. 53.

by placing his own head in a small stamp on their obverse. The very large coins of Caracalla himself may be regarded as having the character of an exceptional issue, and such of them as bear the countermark of a wreath we may imagine to have been distributed by the Emperor as a largess at the Public Games—along with a few others of the large-sized coins of his more immediate predecessors (Commodus, Sept. Severus, J. Domna), which are also countermarked with a wreath as well as with his head. On several of the Emperor's coins of this city¹¹⁴ we notice an allusion to Games, conveyed in the usual way by wreaths and agonistic urns. The Games thus recorded are **ΟΛΥΜΠΙΑ** and **ΠΥΘΙΑ**. It is curious, however, that there should be no mention of the festivals called Asklepieia, which were principally agonistic. We know from inscriptions¹¹⁵ that they were celebrated at Pergamon about this period, and some instances are to be met with of their being recorded on coins; for example, on those of Epidaurus.

Caracalla's was the last really great issue of Pergamene money. After his reign the coins become fewer in number and smaller in size—"magis secundum veterem modestiam," as Eckhel says. Of his successor there are no coins. And although Macrinus reigned only for a short period, this gap, in a series otherwise very consecutive, is probably to be regarded as significant; for we know from history that this Emperor withdrew from the Pergamenes the privileges which had been conferred upon them by his predecessors; and that on their venturing to abuse him for this proceeding he publicly disgraced

¹¹⁴ *E.g.* Mion., t. ii. No. 626, "Pergamus."

¹¹⁵ C. I. G., No. 3208, &c.

them.¹¹⁶ And from this point onwards, although Asklepios is still pretty constantly represented, the types are unoriginal and rudely executed. Three only of these types, which present a slight variety, call for special notice. On a coin of Valerian Senior¹¹⁷ we find Asklepios and Fortune represented together, standing. Under Trajan Decius,¹¹⁸ Hermes is said to appear in company with the God of Medicine; while, on a coin of Herennius Etruscus, which Mionnet¹¹⁹ cites from Vaillant, Asklepios appears with a figure who is described as Juno Pronuba. As the goddess holds in each hand a torch, it is more likely that she is Demeter, with whom Asklepios is sometimes associated.

At last, under Salonina, the coinage of Pergamon ceases; nor do we find upon the money of the wife of Gallienus the familiar effigy of Asklepios. And yet the great Pergamene divinity, whose influence we have now traced by means of coins from the time of the kings down to the latter half of the third century of our era, still makes, as it were, a last faint struggle for existence. The parting genius is indeed with sighing sent, but upon the scanty specimens of this last mintage Hygieia is still found feeding the serpent from her patera.¹²⁰ Beyond this date, or about A.D. 268, our existing archaeological evidence does not, I believe, enable us to follow the fortunes of the Pergamene Asklepios.

And here, too, this article must end. Of the various specimens discussed in our inquiry, many, no doubt, are of

¹¹⁶ Dio. Cass., lib. lxxviii. sect. 20.

¹¹⁷ Brit. Mus. Coll.

¹¹⁸ Mion., t. ii. No. 657, "Pergamus."

¹¹⁹ Mion., Sup. t. v. No. 1160, "Pergamus."

¹²⁰ Mion., Sup. t. v. No. 1177, "Pergamus."

no unimportant historical significance, while others, again, it must be admitted, are not of equal value. But at any rate it is the business of the Numismatist and of the Archæologist to make a full and definite statement as to the exact amount of evidence, whether negative or positive, which their own branch of study has to offer with regard to any given subject of importance; to put in (in the legal phrase) all the documents relating to the case, in order that the judge—that is, the philosophical historian—may have before him every particle of the evidence. Much of such archæological evidence the historian of genius will set aside as only of minor importance or as wholly irrelevant; but much, again, he will indubitably pronounce to be pre-eminently fruitful and indispensable; and, after arranging and classifying its details, will finally base upon it—not for the benefit of specialists only, but of scholars and thoughtful men in general—a judgment which shall be equally sound and luminous.

WARWICK WROTH.

II.

ROMAN COINS FOUND IN THE FOREST OF DEAN, GLOUCESTERSHIRE.

WHEN the Romans had conquered that portion of ancient Siluria, which lay between the Severn and the Wye, and now known as the Forest of Dean, they became possessed of some of the richest iron mines in Britain, and they appear to have been fully alive to the value of the ground thus acquired; for remains of their iron workings are to be found in various situations over nearly the whole of the mineral district of the forest.

No important stronghold of Roman times is to be found in the immediate neighbourhood of these workings, though there are small camps at Lydney, St. Briavels, &c. A branch of the Via Julia ran along the south-east side of the peninsula, and the whole district is intersected with ancient roads used for the conveyance of the raw material, and the iron in its first rough state. These roads communicate with the Wye on the one side, and the Severn on the other, and are not mere trackways, but paved and pitched ways, the kerbstones of which may be seen at intervals for miles along their course.

Large quantities of Roman coins have from time to time been found in different parts of the Forest of Dean, and nearly the whole of them were discovered either in the ancient iron workings or closely adjacent to them.



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Unfortunately most of these hoards were dispersed before their contents were recorded, but in the following list some particulars are given of all the "finds" of coins known to have been discovered in late years.

Near Lydney, a town on the south-west side of the forest, are the remains of a Roman villa and temple protected by the camp before referred to, and at this place large quantities of gold, silver, and brass coins have been found, of all the Emperors from Augustus to Arcadius. In an ancient iron mine near the town was discovered the only hoard of silver denarii which has been recorded in this neighbourhood. They were contained in an earthen jar, and were mostly in a fine state of preservation. The coins are as follows :—

HOARD OF SILVER COINS FOUND NEAR LYDNEY IN 1854.

	Coins.	Types.
1. Marc Antony	1	1
2. Nero	1	1 plated.
3. Galba	1	1
4. Vitellius	1	1
5. Vespasianus	20	20
6. Titus	2	2
7. Domitianus	5	5
8. Nerva	6	6
9. Trajanus	28	20
10. Hadrianus	23	20
11. Sabina	3	2
12. Antoninus Pius	20	19
13. Faustina, sen.	16	16
14. M. Aurelius	17	17
15. Faustina, jun.	5	5
16. Lucius Verus	5	5
17. Commodus	1	1
	155	142

The only "find" which was described before it was dispersed, was one which was discovered in 1852 near

the Parkend Iron Works, on the Coleford road, and was fully described by Mr. Lee and myself in the *Journal of the British Archaeological Association*, 1867, page 393, and 1869, page 158. It was composed of small brass and billon, with the exception of one silver denarius of Julia Domna. The following is a summary of the coins:—

	Coins.	Types.	
1. Julia Domna	1	1	Silver.
2. Gordianus III.	1	1	Æ. 3.
3. Philippus	9	9	
4. Trajan Decius	2	2	
5. Valerianus	2	2	
6. Gallienus	102	52	
7. Salonina	21	11	
8. Saloninus	18	6	
9. Postumus	175	29	
10. Victorinus	71	18	
11. Marius	2	1	
12. Tetricus, sen.	33	14	
13. Tetricus, jun.	11	6	
14. Claudius II.	126	36	
15. Quintillus	18	9	
16. Probus	10	2	
17. Carinus	1	1	
18. Carausius	1	1	
19. Allectus	1	1	
Illegible	500		
	1105	202	

The coins of Carausius and Allectus were bought about the same time, but I do not now think they formed part of this find.

In 1849 a hoard of more than three thousand coins, all small brass, billon, and plated denarii, was found at Perrygrove, near Coleford. They fortunately fell into the hands of a local antiquary, Mr. Fryer, who has left a descriptive catalogue of the most interesting of the coins, but has unfortunately omitted to state how many

coins there were belonging to each Emperor. The numbers after the coins below are only of those now remaining undispersed in his son's collection.

COINS FOUND IN PERRYGROVE, 1849.

	Coins.	Types.
1. Valerianus	6	6
2. Mariniana	2	2
3. Gallienus	33	24
4. Salonina	7	7
5. Saloninus	1	1
6. Postumus	24	13
7. Victorinus	31	15
8. Laelianus	1	1
9. Marius	2	2
10. Tetricus, sen.	25	8
11. Tetricus, jun.	12	4
12. Claudius II.	25	15
13. Quintillus	13	13
14. Severina	2	2
15. Probus	1	1
16. Tacitus	1	1
	186	120

Very near the spot where the last hoard was found, another discovery was made a year or two afterwards at a place called Tufthorn; several thousands of small brass coins were found in an earthen jar, but of these no record was made at the time, and those now remaining are only the refuse left by collectors, who had picked them over.

FOUND AT TUFTHORN ABOUT 1852.

1. Gallienus	22
2. Postumus	1
3. Victorinus	73
4. Tetricus, sen.	51
5. Tetricus, jun.	28
6. Claudius II.	25
7. Quintillus	1
Illegible	50

There was a hoard of many thousands of small brass coins found at Lydbrook, in 1848, but all that is now known about them is comprised in a short notice in the *British Archaeological Journal*, 1848, where the Rev. G. Cox mentions that he had seen some of these coins, and that they were third brass of the Emperors Gallienus, Victorinus, and Claudius Gothicus.

The situations in which all these coins were found leads one to the belief that they were intended for the payment of miners' wages, deposited for temporary safety in some sheltered hole, or corner, and covered up by some fall of earth, such as often occurs in these workings at the present time. From the isolated position of this district, cut off from the western limit of Britannia Prima by the dangerous and difficult navigation of the river Severn, it must have been a district of more value as a mercantile than as a military position; and as no Roman coin has been found here later than the one of Allectus (with the exception of those at the Lydney villa), it would appear doubtful if the Romans worked the iron mines of the Forest of Dean later than the close of the third century.

MARY E. BAGNALL-OAKELEY.



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III.

ROMAN COINS DISCOVERED IN LIME STREET, LONDON.

A FEW months ago some labourers employed on excavations in Lime Street came upon a hoard of about four hundred Roman denarii, which, however, being in great part struck in billon, and not in fine silver, had all the appearance of being merely brass. They lay in an urn of coarse black pottery at a depth of 17 or 18 feet from the surface. In the immediate neighbourhood were found fragments of pavement, pottery, fused glass, and charcoal. The urn was broken by an accidental blow and the coins scattered. A large proportion of them, however, came into the hands of Mr. John E. Price, F.S.A., Mr. Alfred White, F.S.A., and Mr. F. G. Hilton Price, F.S.A., by whom they were cleaned and arranged, and by whom the hoard was kindly placed in my hands for examination.

The following is a list of the coins I have seen, and the numbers of each type. The references are to Cohen's "Médailles Impériales."

LIST OF COINS FOUND IN LIME STREET.

COMMODUS. No. 197. Another differs from Cohen.

Obv. COMM. ANT. AVG. P. BRIT. Laureate head r.
VOL. II. THIRD SERIES. I

Rev. P. M. TR. P. X. IMP. VII. COS. IIII. P. P. Rome
helmeted, seated l. holding Victory and cornu-
copiæ.

CLODIUS ALBINUS, No. 26.

SEPTIMIUS SEVERUS. No. 18, 24, 121 (3), 124, 131, 189, 216,
229, but Peace holds a sceptre instead of a cornucopiæ,
262 (plated), 273, 274, 284, 294, 313, 320, 328, 344, 349,
354, 361 (2), 365, 396 ? 427 (2), 438 (2). Uncertain 2.

JULIA DOMNA. No. 24 (2), 38, 44, 51, 62, 71 (2), 78, 83 (2),
90, 114.

CARACALLA. No. 53, 63, 68, 87, 89, 103, 109, 116, 121, 134,
157 ? 163 (3), 176 ? 178 (2), 183, 186, 243 (3), 249 (2),
251, 252 (2), 255 (2), 273, 291, 293, 330, 333, but IMP.
CAES. M. AVR. ANTON. AVC, 339, 377. Supplement
20.

PLAUTILLA. No. 8 (2), 9, 18.

GETA. No. 48, 53, 58, 69, 77 (2), 85.

ELAGABALUS. No. 1 (3), 5, 23 (2), 38 (4), 48, 55, 60, 64, 92
(2), 95, 97, 108, 114, 116 (3), 123, 134 (2), 136, 148,
150 (3).

JULIA PAULA. No. 2, 9 (2).

AQUILIA SEVERA. No. 1.

JULIA SOEMIAS. No. 5, 8 (3).

JULIA MÆSA. No. 7, 14 (5), 17 (4).

SEVERUS ALEXANDER. No. 4 (2), 9 (3), 17, 23, 28, 38, 40 (2),
45, 49, 52, 75 (2), 78, 81, 90 (2), 102 (2), 109 (3), 113,
118, 129, 135 (2), 138, 139, 141 (2), 143, 145, 146, 157,
161, 169, 172, 174, 175, 181, 190, 192 (2), 217, 221 (2).

JULIA MAMÆA. No. 2 (2), 3 (2), 5 (2), 11 (4), 29.

MAXIMINUS. No. 6, 14 (2), 24, 32, 37 (3), 40.

PUPIENUS. No. 14.

GORDIANUS III. No. 6 (3), 9 (2), 13 (3), 18, 25, 29, 34, 39
(3), 44 (2), 49 (6), 53 (6), 57, 62, 64 (3), 65, 70, 82 (2),
85, 89, 92 (2), 94 (4), 96, 101, 107 (3), 109 (5), 114,
117, 121, 125, 126 (2), 128, 137, 138 (3), 143 (2), 144,

145 (2), 151 (3) (one reading VICTORIA), 160, 163 (3), 166 (5). Supplement No. 7 (2). (Uncertain 3.)

PHILIPPUS I. No. 6, 9 (7), 10, 14 (4), 16, 23, 24, 27, 28, 33, 38, 44, 50 (3), 52 (3), 72, 73 (6), 74, 88, 92, 97, 103, 109.

OTACILIA SEVERA. No. 3 (8), 25 (2).

PHILIPPUS II. No. 12, 30 (4), 33, 34 (3), 36.

There were six or eight other coins which have not been here enumerated.

As will be seen nearly all the Emperors and Empresses from the time of Albinus to that of Philip the younger, are represented in the hoard. Of earlier date there are two coins, both of Commodus, and one of them presenting a variety not given by Cohen, though described in Argelati's¹ edition of Occo with a reference to the Museum Daviæ.

Some other variations from types recorded by Cohen are mentioned in the list. Many of the coins, such as those of Albinus, Julia Paula, Aquilia Severa, and Pupienus, are of some degree of rarity, and are very seldom found in Britain. The hoard itself belongs to a period of which but few such deposits are known, the majority of the hoards discovered in Britain usually belonging either to an earlier or a later date.

It cannot have been deposited earlier than A.D. 248, as it comprises coins of the Philips, recording the SAECV-LARES AVGG., or the thousandth anniversary of the founding of Rome, and the LIBERALITAS AVGG. III. of these Emperors, both of which must be referred to that year, nor can it well be much later, as coins of Trajan Decius, who was proclaimed Emperor in A.D. 249, and of

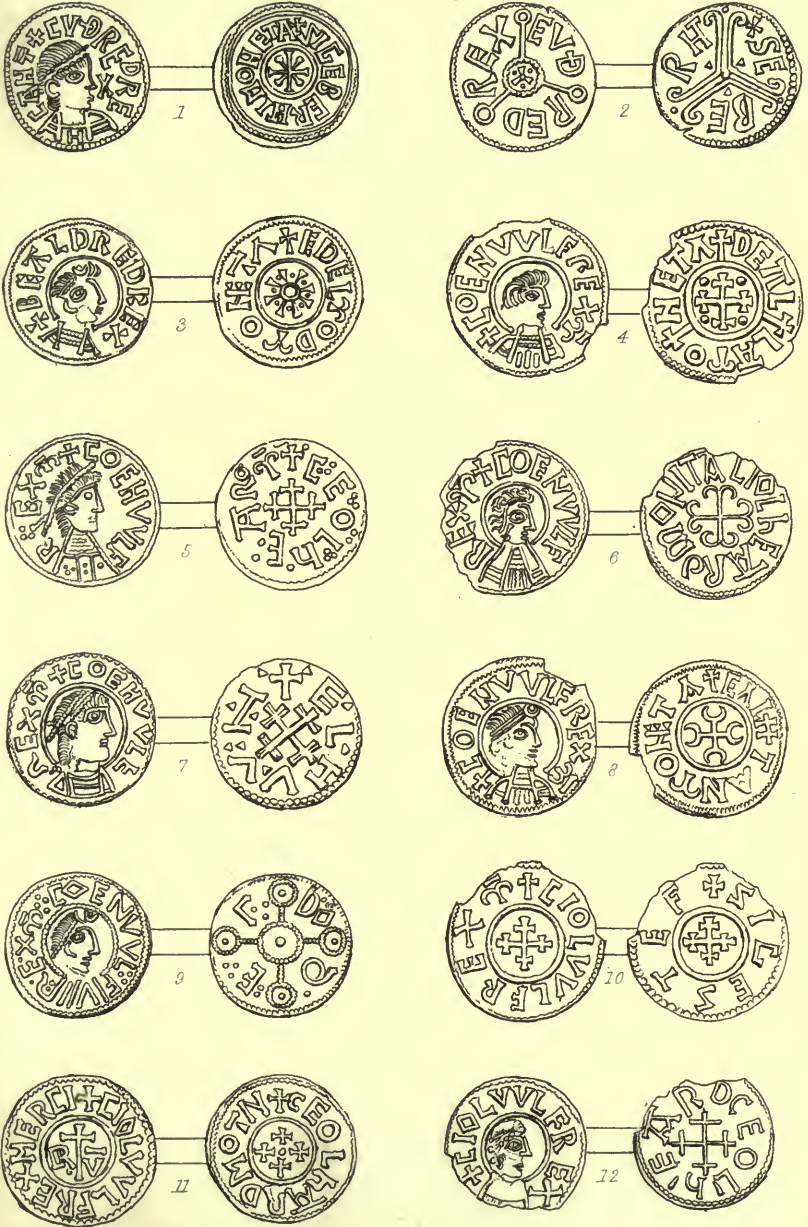
¹ Milan, 1730.

his family are absent. It was in that year that both the Philips were put to death, and general confusion within the bounds of the Roman empire began. Indeed, as Gibbon² observes, "from the great secular games celebrated by Philip to the death of the Emperor Gallienus there elapsed twenty years of shame and misfortune," and it may well have been in anticipation of those troublous times that the hoard now found was deposited in the safe keeping of Mother Earth by its owner. Of what was taking place in Britain at the period when Decius, Gallus, Volusian, Æmilianus, and Valerian successively wore the purple we know but little. This country was, however, in all probability cut off from all connection with any central authority, and its inhabitants left much under their own government, such as it may have been.

The depth at which the coins were found shows how great have been the superficial accumulations on the site of Londinium since Roman times. Indeed Mr. White suggests that Lime Street itself marks the course of one of the many brooks which came from the north of London and discharged into the Thames.

JOHN EVANS.

² Decline and Fall, chap. x.



F. J. Lees

SAXON PENNIES FOUND IN IRELAND.

IV.

ON A HOARD OF EARLY ANGLO-SAXON COINS FOUND IN IRELAND.

ABOUT the year 1874, a rather remarkable hoard, consisting principally of Anglo-Saxon pennies, was found in the county Wicklow, in Ireland, of which a considerable number passed into my collection. The discovery was made in the following manner. In mending a road close to Delgany, a village not far from Greystones, on the Wicklow coast, and about a mile and a half inland, a workman on lifting a stone found under it a cake of coins massed together, seemingly in one or two rouleaux. Some of the coins were broken, and others dispersed, but eventually a large proportion of them were brought together by the exertions of Miss Scott, to whom, and to her brother, the Rev. Dr. Scott, Head Master of Westminster School, I am much indebted, both for assistance in procuring the coins and for information as to the manner of their finding.

The following is a list of such coins as have come to my knowledge, which are in the main arranged in accordance with the list of types given in Mr. Kenyon's edition of Hawkins's "Silver Coins of England." I have not myself examined those marked with an asterisk.

KENT.

EADBEARHT.—A.D. 794—798.

1. *Obv.*—.: EAD BEARHT ·: REX.

Rev.—1Ω1 | †E‡E1 | ·: M·⊙D· Slightly varied from Rud. App., Pl. XXV1. (Hawkins, 52.)

2. *Obv.*—:EÆD. BEARH :REX.

Rev.—:R̄: BṚBBṚ V. · ∞∞ · V. Same type; moneyer not in Ruding.

CUTHRED.—798—805.

1. *Obv.*—+ LVÐRED REX LANT. Laureate bust to right. No inner circle.

Rev.—+SILBERHI MONETṚ. Star of eight points, formed by a cross botonée and a cross patée, within an inner circle. Varies from H., type 1. (Plate IV., No. 1.)

2. *Obv.*—+ LVÐ|RED| REX. Between the limbs of a tribrach having a circle in the centre and at the end of each arm. In the central circle a pall (Y) with pellets between the arms.

Rev.—+ SE BE RH. Between the limbs of a double tribrach, the ends of which are curled round. In the centre a pellet, and in each angle a small triangle. Varies from Hawkins, type 3, and Sir A. Fontaine, Tab. IV., 6, in Hickes's "Thesaurus." (Plate IV., No. 2.)

*3. *Obv.*—+ LVÐRED REX. A cross.

Rev.—EṚBṚ. Between the limbs of a cross.

*4. *Obv.*—+ LVÐRED REX. Cross.

Rev.—+ E|ṚB|Ṛ. Between the limbs of a double tribrach. Variety of Hawkins, 54.

BALDRED.—805—823.

1. *Obv.*—+ BELDRED REX LAN. Head to right, within the inner circle.

Rev.—+ DIORMOD MONET̄. In inner circle. D̄R VR ĒI T̄N var. of H., 57, but reading Beldred.

2. *Obv.*—+ BEṚLDRED REX. Bust to right, extending to edge.

Rev.—+ EDELMOD MONETṚ. Circle with eight wedges and eight pellets alternately around it. Variety of H., type 2. See Ruding, Pl. XXIX., No. 12. (Pl. IV., No 3.)

3. *Obv.*—+ BMLDFED FEX ☐. Bust to right, extending to edge.

- Rev.*—+ DVNVN Ω ONET Λ . Cross moline, within inner circle. (See Num. Chron., O.S., vol. xiv., p. 146.)
- *4. *Obv.*—+ BELDRED REX E Λ N. Cross, with pellets in angles, within inner circle.
- Rev.*—+ OBA. In four compartments, formed by Ω -shaped limbs issuing from inner circle, in which is a cross, as on obverse. (Ruding, Pl. III., No. 2.)
5. *Obv.*—+ BELDRED REX E Λ N. Cross within inner circle.
- Rev.*—+ ZILFENTEF. Cross within inner circle. (Variety of H., 59.)
6. *Obv.*—+ BELDRED REX E Λ N. Cross within inner circle.
- Rev.*—+ Σ VVEFNERD. Cross within inner circle.
7. *Obv.*—+ BELDRED REX E Λ N. Cross within inner circle.
- Rev.*—+ TIDBE Λ RHT. \star A cross, with one Y-shaped limb, within inner circle. Varied from Num. Chron., O.S., vol. xv., p. 102.

MERCIA.

OFFA.—757—796.

- *1. *Obv.*—+ OFFA REX $\bar{\Omega}$. In three lines.
- Rev.*—V.VIL HVN. In two compartments. (Smith's Coll. Ant., vol. i., Pl. XXIII., 9.)
2. *Obv.*— \ddagger \diamond :F.F Λ · · REX · · $\bar{\Omega}$ · · As Ruding, Pl. V., 13.
- Rev.*— \ddagger E $\bar{\Delta}$ EEL · M · D · · -[+]-. Much as Ruding, Pl. V., No. 41.
- *3. *Obv.*—+ OFF Λ REX Ω
- Rev.*— Ω Λ Λ M?? EAMA? Between the limbs of a cross.

COENVULF.—796—818.

1. *Obv.*—+ COENVULF REX $\bar{\Omega}$. Bust to right.
- Rev.*—+ DE Λ L+L Λ MO+ NET Λ . Cross crosslet with pellets in the angles, within an inner circle. The legend divided by three crosses. Unpublished (Pl. IV., No. 4). Two examples.

2. *Obv.*—+ EOENVVLF REX $\bar{\Omega}$. Bust to right.
Rev.—+ DEALLA MONET π . Cross crosslet, pellet in each angle. Inner circle. As Ruding, Pl. VI., No. 4. Two examples.
3. *Obv.*—+ EOENVVLF REX Ω . Bust to right.
Rev.—+ HEREBER·HIT. Cross crosslet within an inner circle, a pellet in each of the four angles, but beyond the limbs of the crosslets. Like Ruding, Pl. VI., 4.
4. *Obv.*—+ EOENVVLF REX $\bar{\Omega}$. Diademed bust to right. No inner circle.
Rev.—+ EE·O $\bar{\iota}$ h·E: π RD Ω . Cross crosslet, no inner circle. (Pl. IV., No. 5.) See Sir A. Fontaine, Tab. IV., 3. Two examples.
5. *Obv.*—+ EOENVVLF REX $\bar{\Omega}$. Bust to right.
Rev.—CEO·Eh·E π ·RD. Cross crosslet, no inner circle. Like Ruding, Pl. VI., 5, but no wedges. Two examples.
6. *Obv.*—+ EOENVVLE REX $\bar{\Omega}$. Bust to right.
Rev.—+ E·LHV·V: \bar{N} . Cross crosslet, no inner circle. Unpublished. (Pl. IV., No. 7.)
7. *Obv.*—+ EOENV·VLF REX $\bar{\Omega}$. Bust to right.
Rev.—+ E $\bar{\Delta}$ LHZT $\bar{\Delta}$ N Ω ONT. Cross, with four pellets in the angles. (Ruding, Pl. D, 24.)
8. *Obv.*—+ EO [ENV] VLF REX $\bar{\Omega}$. Bust to right.
Rev.—+ E π B π Ω ONET [π]. Cross botonée, with wedges in each angle; inner circle. (Ruding, Pl. VI., 20.)
9. *Obv.*—+ EOENVVLF REX $\bar{\Omega}$. Bust to right.
Rev.—+ E π LHNT π N Ω ONET π . Cross and saltire patée. Inner circle. (Variety of Ruding, Pl. VI., 20.)
10. *Obv.*—+ EOENVVLF REX $\bar{\Omega}$. Bust to right.
Rev.—+ OB π + Ω O·N +ET π . Cross and saltire, as on Cuthred. (Legend divided, as in Pl. IV., No. 4.) Three examples.
11. *Obv.*—+ EOENVVLF REX Ω . Bust to right.
Rev.—+ BEORNFRIÐ MONET π . Cross botonée, wedges in angles. Inner circle. (Ruding, Pl. VI., 20.)

12. *Obv.*—+ EOENVVLF REX $\bar{\Omega}$. Bust to right.
Rev.—+ LIOLHETR \ominus MONIT π . Cross moline, no inner circle. (Pl. IV., No. 6.)
13. *Obv.*—+ EOENVVLF REX $\bar{\Omega}$. Bust to right.
Rev.—+ DIORMOD MONET π . Cross moline within inner circle. (Ruding, Pl. VI., 7.)
14. *Obv.*—+ EOENVVLF REX $\bar{\Omega}$. Bust to right.
Rev.—+ \diamond BA MONETA. Cross moline in inner circle. As Ruding, Pl. VI., No. 7. Two varieties of obverse.
15. *Obv.*—+ EOENVVLF REX Ω . Bust to right.
Rev.—+ OB π + MON+ET π . Cross moline in inner circle, from which the three crosses in the legend issue. (Ruding, Pl. VI., 3.) Two examples.
16. *Obv.*—+ EOENVVLF REX $\bar{\Omega}$. Bust to right.
Rev.—+ SVVEFNERD MONET π . Cross fourchy, with pellets in the angles, within an inner circle. (Ruding, Pl. VI., 13.)
17. *Obv.*—+ EOENVVLF REX $\bar{\Omega}$. Bust to right.
Rev.—+ ETLHT π N MONET π . Cross, with the limbs ending in crescents, with the cusps outwards; in inner circle. (Plate IV., No. 8.)
18. *Obv.*—+ EOENVVLF REX $\bar{\Omega}$. Bust to right.
Rev.—+ TIDBETRH MONET π . Cross formed by horse-shoe-shaped ornaments back to back, with a pellet in the centre, within a plain inner circle. (Ruding, Pl. VI., 15.)
19. *Obv.*—+ EOENVVLF REX $\bar{\Omega}$. Bust to right.
Rev.—+ NILENTEF MONET. In inner circle \mathfrak{A} . (Hawkins, 573; Ruding, Pl. VI., 6.)
20. *Obv.*—+ EOENVVLF REX $\bar{\Omega}$. Bust to right.
Rev.—+ TIDBEARH. MONETA. Square, with branches. (Type of Ruding, Pl. VI., No. 11; variety of Hawkins, No. 73.) Four examples.
21. *Obv.*—+ EOENVVLF | REX $\bar{\Omega}$. Bust to right. Variety in arrangement of legend.
Rev.—+ TIDBEARH MONETA. Square, &c., as last. (Variety of last.)

22. *Obv.*—+ LOENVVLF REX $\bar{\Omega}$. Bust to right.
Rev.—+ DIOR Ω OD Ω ONETA. As last. (Variety of Ruding, Pl. VI., No. 11.)
23. *Obv.*—+ LOENVVLF REX $\bar{\Omega}$. Bust to right.
Rev.—+ Ψ ERNEARD MONET π . As last. (Variety of Ruding, Pl. IV., 12.)
24. *Obv.*—+ LOENVVLF REX $\bar{\Omega}$. Bust to right.
Rev.—+ Ψ ERNEARD MONET π . Square, with branches, &c. (Ruding, Pl. VI., 12.)
25. *Obv.*—+ LOENVVLF \mathbb{K} EX Ω . Bust to right.
Rev.—+ L ∇ L. In four compartments of a quarterfoil, three pellets in each external angle. (Ruding, Pl. VI., 18.)
26. *Obv.*—+ LONVVLF REX Ω . Bust to right.
Rev.—+ LVL. As last, but five pellets in each angle. (Variety of Ruding, Pl. VI., 18.)
27. *Obv.*—+ LOENVV \square \mathbb{K} EX Ω . Bust to right.
Rev.—+ L ∇ L. In four compartments of a quarterfoil; stars of pellets in each external angle. (Variety of Ruding, Pl. VI., No. 18.)
28. *Obv.*—+ LONVVLF \mathbb{K} EX Ω . Bust to right.
Rev.—+ \square ∇ \square . In the compartments of a quarterfoil; stars of pellets in each angle. (Variety of Ruding, Pl. VI., 18.)
29. *Obv.*—+ LOENVVLF REX Ω . Head to right, in inner circle, which is broken by the F and R so as to form a bust.
Rev.—P \diamond \odot EL+. Between the limbs of a cross crosslet with a lozenge in the centre, in which five dots. (Ruding, Pl. C, No. 6. See Sir A. Fontaine, Tab. IV., 2.)
30. *Obv.*— \cdot \diamond L \diamond ENVVL \cdot :F REX $\bar{\Omega}$. Bust to right.
Rev.—D \diamond \odot :E \cdot \square . Between the limbs of a cross formed by beaded circles and lines. Unpublished. (Plate IV., No. 9.)
31. *Obv.*—+ LOENVVLF \square REX Ω . Rude bust to right.
Rev.—+ HEREBERHT. Star of five pellets within a beaded circle. (Hawkins, type 20.)

32. *Obv.*—+E \diamond ·ENV.VLF R·EX $\bar{\Omega}$. ($\bar{\Omega}$ in centre.)
Rev.— \bar{D} \uparrow XLEA . Triple tribrach. (Type of Ruding, Pl. VII., No. 24.)
33. *Obv.*—+E \diamond ENVVLF REX $\bar{\Omega}$. ($\bar{\Omega}$ in centre.)
Rev.—D VD A . Double tribrach; pellets in angles and at ends. (Ruding, Pl. VII., No. 26.)
- 34.—As last, but without pellets on reverse.)
35. *Obv.*—+E \diamond ENVVLF REX $\bar{\Omega}$. In centre.
Rev.—E Y EL MOD. Double tribrach. (Type of Ruding, Pl. VII., No. 25.)
36. *Obv.*—+E \diamond ENVV[L]F REX $\bar{\Omega}$. ($\bar{\Omega}$ in centre.)
Rev.—[V D A [M] AN . Double tribrach. (Type of Ruding, Pl. VII., No. 25.)
37. *Obv.*—+E \diamond ENVVLF REX $\bar{\Omega}$. ($\bar{\Omega}$ in centre.)
Rev.—PEN DVV INE. Double tribrach. (Type of Ruding, Pl. VII., No. 25.)
- *38. *Obv.*—+EOENVVLF REX $\bar{\Omega}$. Bust to right.
Rev.—+DE ALLA MONET A . Cross of crescents, as on No. 18.
- *39. *Obv.*—+EOENVVLF REX $\bar{\Omega}$. Bust to right.
Rev.—+EIOLHE ARD MONT. Cross.
- *40. *Obv.*—As last.
Rev.—+OB A MONET A . Crosses in field.
- *41. *Obv.*—As last.
Rev.—+E ABA MONET A . Star of six rays.
- *42. *Obv.*—As last.
Rev.—+HVNT AEL ? Cross.
- *43. *Obv.*—As last.
Rev.—--DVNNT--? Cross, with crescents at end of arms.

CEOLVULF I.—819.

1. *Obv.*—+EIOLVVLF REX $\bar{\Omega}$: Bust to right.
Rev.—+E PLHTAN $\bar{\Omega}$ ONE. X in inner circle. (Ruding, Pl. XXIX.) Two examples.
2. *Obv.*—+EIOLVVLF REX. Bust to right.

- Rev.*—+ E π NVLF Ω ONET. \mathfrak{A} in inner circle. (Ruding, Pl. XXVII; Sir A. Fontaine, Tab. IV., 2.)
3. *Obv.*—LEOLVVLF REX $\bar{\Omega}$. Bust to right.
Rev.—SILESTEF Ω ONET. \mathfrak{A} in centre of inner circle. Type of Hawkins, No. 87; Arch., vol. xxiii., Pl. XXXIII., 3.
4. *Obv.*—+ LI ϕ LVVLF REX. Bust to right.
Rev.—CEO ϵ NEARD. Cross crosslet, no inner circle. Unpublished. (Pl. IV., No. 12.)
5. *Obv.*—+ LI ϕ LVVLF REX. Bust to right.
Rev.—EIOLBALD. Cross crosslet in inner circle. (Variety of Hawkins, 575.)
6. *Obv.*—+ LEOLVVLF REX $\bar{\Omega}$. Bust to right.
Rev.—HEREBE+RHT. In three lines, scrolls between. (Ruding, Pl. VIII., 2; Sir A. Fontaine, p. 164, Tab. IV., 1.) Two examples.
7. *Obv.*—+ LEOLVVLF REX $\bar{\Omega}$. Bust to right.
Rev.—+ POD DEL Ω O NET \mathfrak{A} . In three lines, scrolls between. Type of Ruding, Pl. VIII., No. 1. (Ceolvulf II.) (Arch., vol. xxiii., Pl. XXXIII., 6.)
8. *Obv.*—+ LI ϕ LVVLF REX MERLI. In inner circle, a long cross and $\overline{\text{RV}}$.
Rev.—+ CEOLh \mathfrak{A} RD MO $\bar{\Delta}$ N. Four small crosses, with a pellet in their midst. (Pl. IV., No. 11.) (See Hawkins, No. 578; Sir A. Fontaine, Tab. VI., 3.)
9. *Obv.*—+ EIOLVVLF REX $\bar{\Omega}$. Cross crosslet within inner circle.
Rev.—+ SILENTEF. Cross crosslet within inner circle. Unpublished. (Pl. IV., No. 10.)
10. *Obv.*—+ LEOLVVLE REX Ω . Bust to right.
Rev.—+ EAD \mathfrak{S} \mathfrak{A} R. In two lines, long crosses and star between. (Variety of Hawkins, No. 77; Arch., vol. xxiii., Pl. XXXIII., 9.)
11. *Obv.*— \perp LEOLVVLE + REX Ω . Bust to right.
Rev.—EA \mathfrak{O} \mathfrak{G} \mathfrak{A} Z. In two lines. Type of Hawkins, No. 77.

BEORNVULF.—820—824.

1. *Obv.*—+ BEO [RNVV] LF REX. Head to right.
Rev.—× E.ϷDHOP *** ET. Cross crosslet in inner circle. (Type of Ruding, Pl. VII.)
2. *Obv.*—+ BEOBNϷVLF REX. Head to right within inner circle.
Rev.—+ ·· ΩON ·N Ϸ. Cross crosslet within inner circle. (Type of Ruding, Pl. VII.; and Sir A. Fontaine, Tab. III., 1.)

ECGBEORHT, SOLE MONARCH.—800—837.

1. *Obv.*—[+E] EBCϷRH REX. Bust to right in inner circle.
Rev.—+ NVVEFN ***. Cross patée in inner circle. Unpublished?
 2. *Obv.*—+ ELLBEϷRHT REX. Bust to right extending to outer circle.
Rev.—+ DIORΩOD ΩNET. Monogram in inner circle. (Hawkins, 157.)
- *3. *Obv.*—+ ELLBEARHT REX. Bust to right.
Rev.—+ BOSEL MONETA. Monogram as last. (Hawkins, 157.)

VULFRED, ARCHBISHOP OF CANTERBURY.—805—830.

1. *Obv.*—+ VVLFRED A REHIEPI. Full-faced bust.
Rev.—+ NÆBERHT MONETϷ. Monogram in inner circle. (Ruding, Pl. XIII., No. 1; Hawkins, 143.)
 Two specimens.
- 2.—Same type, but of + NVVEFNERD MONETA. Four specimens.

UNCERTAIN ARCHIEPISCOPAL COINS.

1. *Obv.*—+OBϷ+ΩON +ETϷ. Bust to right in inner circle, from which spring three crosses dividing the legend.
Rev.—+ | DOROB | ERNITE | IVITA | N. In five lines. (Pl. IV., No. 12.)
2. *Obv.*—ϷERNEϷRD MONETA. Bust to right in inner circle.

- Rev.*—DOROB ERNITTE IVITA N. In three lines, ∙ ∙ ∙ above and below.
3. *Obv.*—+ NVVEFNERD MONETA. Bust to right in inner circle.
- Rev.*— ∙ DOROB | ERNIALI | VITA N. In three lines. (Ruding, Pl. XIII., No. 1.)
4. Another ∙ + ∙ | DORO | BERNIA | LIVITA | N. In four lines.
5. *Obv.*—NVVEFNERD MONETK. Full-faced bust in inner circle.
- Rev.*—+ DORO | BERNI | LIVITK | N. In four lines. Varied from Ruding, Pl. XIII., No. 4.
6. A fragment, but reading DOROBERNITK.
7. *Obv.*—+ LVNINE MONETK. Full-faced bust within inner circle.
- Rev.*— ∙ + ∙ | DORO | BERNIA | LIVITK | N. In five lines. (Sir A. Fontaine, Tab. IX., 6.)
- *8. *Obv.*—+ LVNINE MONETK. As last.
- Rev.*—+ | DOROB | ERNITTE | IVITKS. In four lines.

PAPAL.—(14.)

LEO III.—795—816.

Obv.—DN ∙ LEONI ∙ P APE. In three lines, with raised lines between.

Rev.—S ∙ P On either side of the bust of St. Peter,
 C TE facing, and holding a key in his right
 S RV hand. (Fioravanti, p. 78, No. 2; Vig-
 S noli, p. 59, 2; Argelati—1, 5, 45.)

Before proceeding to consider the date of the deposit of this hoard, its origin, or the light which it throws on the numismatic history of the period to which it belongs, it will be well to say a few words as to the more remarkable coins which it comprised. As will have been evident from

a cursory examination of the list, not a few rare coins were present, as well as several varieties, if not types, which were previously unknown.

The coins of Eadbearht of Kent, surnamed Præn, are amongst the rarest in the Kentish series, and yet two coins at least of this monarch were found at Delgany. The moneyers are BABBA and ETHELMOD, and I may take this opportunity of correcting a slight error into which Mr. Kenyon has fallen in the new edition of Hawkins. He there credits me with possessing a coin struck by HETHELMOD, but the name of the moneyer of my coin is, as here given, EDELMOD without the aspirate. My specimen of this moneyer was not found at Delgany, but probably in Kent. It varies slightly from the first here described, the reverse legend being $\ddagger\text{M}\ddagger +\text{E}\ddot{\text{D}}\text{E}\text{L}\text{M}\text{O}\text{D}\cdot$ This again differs slightly from Ruding, App., Pl. XXVI., the original of which is in the Bodleian Library at Oxford. ETHELMOD also minted under Baldred and Offa.

Two of the coins of Cuthred found in the hoard have appeared to me worthy of being figured, though the first has already been described by Mr. Kenyon. The absence of an inner circle is a very striking feature in this coin (Plate IV., Fig. 1) and the laureate head has much the appearance of having been directly copied from some Roman coin of the Constantine period, though the art is even more barbarous than on some of the coins with the inner circle. The moneyer SIGEBERHT is not improbably the same person as the SEBERHT on No. 2. The name of SAEBERHT also appears as that of a moneyer under Archbishop Vulfred.

The other coin of Cuthred (Plate IV., Fig. 2) has the obverse of Hawkins's type 3 combined with a new reverse, the type of which is what has been termed "a double

tribrach." As I have already remarked in a former paper,¹ there can be little doubt that this device is symbolical of the archiepiscopal pall; but to this subject I shall have to recur. The other two coins I have not myself seen.

While discussing the coins of Cuthred, it will perhaps be well to place on record the particulars of two hitherto unpublished types, examples of which are in my own collection. One of these was found several years ago at Westbury, near Frome, and may be thus described:—

Obv.—+ EVÐRED REX. Small cross patée, with a wedge in each angle, the whole within a beaded circle. Much as Hawkins 54.

Rev.—·ʝE | RHE | ARD. Double tribrach springing from a small central circle containing a pellet; a wedge in each of the three angles outside the circle.

The other coin was found near Andover.

Obv.—+ EVÐRED REX. Small cross patée within a beaded circle.

Rev.—+ EꝶBꝶ between the limbs of a cross moline, with ends like the Mercian Ω, which spring from a central circle containing a small cross patée. Much as Hawkins 56.

WERNEARD or WERHEARD struck coins under Baldred and Coenvulf, and also some archiepiscopal coins in his own name. EABA is not improbably the same person as Eoba, who minted both for Offa and his queen Cynethryth, and may be the OBA of some later coins.

The coins of Baldred found at Delgany are of great importance, as previous to their discovery not more than about a dozen specimens of his coins seem to have been known. Most of these have been carefully described by

¹ "Num. Chron.," N.S., vol. v. p. 360.

the late Mr. Bergne.² As will be seen, the coins found in this hoard present new varieties rather than new types. The specimen which I have selected for engraving gives a new rendering of the king's name as BEALDRED. The moneyer ETHELMOD must be the same as the minter under Eadbearht. Of the other coins, No. 1 reads BELDRED instead of BEALDRED, which is the usual form on this type. No. 3 appears to have been struck from the same dies as Mr. Bergne's coin (*Num. Chron.*, vol. xiv. p. 146).

The moneyer of No. 4, OBA, also struck archiepiscopal coins and some of Coenvulf. He may, as already observed, possibly be the same person as EABA or EOBA, the moneyer of Offa and Cynethryth. No. 5 differs from Hawkins No. 59, both in the moneyer and in reading REX CAN. No. 6 is of the same type, and No. 7, though struck by the same moneyer as Mr. Shepherd's coin (*Num. Chron.*, vol. xv. p. 102), varies from it in the position of the name, with regard to the central device, which appears to me to be a pall and cross combined.

It is rather remarkable that out of the eight moneyers known to have struck coins under Baldred, seven should be represented in this hoard.

Of Offa at least three coins were found. Of the two which I have seen, one was struck by ETHELMOD, a moneyer under Eadbearht and Baldred, as well as under Coenvulf; and the other by WILHUN, who also coined for Coenvulf. I have a coin of the same type as the latter, which was found at Eastry,³ Kent. On some coins of Coenvulf the names both of WILHUN and ETHELMOD appear between the arms of a tribrach.

² "*Num. Chron.*," vol. xiv. p. 146; xv. p. 102.

³ Smith's "*Coll. Ant.*," vol. i., plate xxiii. 9.

The coins of Coenvulf formed a large proportion of the hoard, some forty being present, several of them exhibiting new types or varieties. I have selected six for engraving, which I will first notice before offering any remarks on the other coins.

No. 1 (Plate IV., Fig. 4). Of this type there were two specimens. It differs from Ruding, Pl. VI., 4, in having the legend on the reverse divided by three long crosses springing from the inner circle. The same peculiarity may be observed in some of the other types, and there can, I think, be little doubt that these three equidistant crosses are, like the tribrach, symbolical of the archiepiscopal pall. The same moneyer (DEALLA or DIALA) struck coins for Archbishop Ceolnoth, A.D. 830—870.

No. 2 (Plate IV., Fig. 5). Of this type also there were two specimens. Its remarkable feature is the absence of an inner circle on the obverse, in which peculiarity it resembles Hawkins No. 572, and one of the coins of Coenvulf (Ruding, Plate VII., 2). There are numerous pellets interspersed between the letters of the moneyer's name on the reverse. Two other varieties of Coenvulf's coins struck by CEOLHEARD occurred in the hoard, as well as two of Coenvulf I. CIOLHARD, for the name is spelt in various ways, was also a moneyer under Offa.

No. 12 (Plate IV., Fig. 6) is another of this same moneyer's coins. On this, the usual inner circle of the reverse is absent, and the name is spelt EIOLHEARD, with the same peculiarities in the H and D.

No. 6 (Plate IV., Fig. 7) is remarkable for the size and character of the bust. The reverse has numerous small triangles which have been punched into the die among the letters. There is no inner circle on the reverse.

I am not aware of any other specimen of the moneyer ELHVVN's work.

No. 17 (Plate IV., Fig. 8) presents us with a new type on the reverse — a cross with the limbs terminating in crescents. This is not far removed from the cross with Y-shaped limbs (Ruding, Pl. VI., 13), which, however, is formed of four archiepiscopal palls combined into a cross. The moneyer EALHSTAN (for the symbol H must be read as H S) struck various other types of Coenvulf and also of Ceolvulf.

No. 30 (Plate IV., Fig. 9) is an interesting coin as to the reverse. It differs from that described in the Num. Chron. N.S., vol. i. p. 19, in having a circle at the outer end of each limb of the cross. In the coin by the same moneyer (Ruding, Pl. C, 6) the device forms a kind of cross crosslet with a lozenge in the centre. WODEL also coined under Ceolvulf.

Of the other types described in the foregoing list not much need be said, but it may be observed that several of the coins present slight varieties from those which have already been published by Ruding and Hawkins. The moneyers' names, besides those already cited, are BEORNFRITH, DIORMOD, DUDA, EABA, ETHELMOD, HEREBERHT, LUDAMAN, LUL, OBA, PENDWINE, SIGESTEF, SWEFNERD, and WERNEARD. With regard to EABA, ETHELMOD, OBA, and WERNEARD some observations have already been made. Of the others BEORNFRITH and DUDA were moneyers of Cuthred, while DIORMOD was one of Baldred's. HEREBERHT struck coins for Archbishop Ceolnoth, and continued to mint for Ceolvulf after Coenvulf's death. LUDAMAN struck coins with the tribrach, as also did PENDWINE. LUL was one of Offa's moneyers, striking coins with an obverse like those of Archbishop Æthilheard; and

SIGESTEF, SWEFNERD, and WERNEARD were moneyers of Baldred, the two latter also working for Archbishop Vulfred and the last for Cuthred.

I now turn to the coins bearing the name of Ceolvulf, the whole of which in this hoard must be attributed to Ceolvulf I. of Mercia. That which I have engraved as Plate IV., Fig. 10 (No. 9) is described by Mr. Kenyon under his type 10. As already observed, SIGESTEF was a moneyer of Baldred's. The second coin figured, Plate IV., Fig. 11 (No. 8), is also a Kentish coin, as Hawkins No. 578, which is of nearly the same type, gives the name DOROBERNIA in full. The title REX MERCIORVM and its arrangement are worthy of notice. The type has already been figured in Sir A. Fontaine's plates. The art exhibited on the third coin, Pl. IV., Fig. 12 (No. 4 in list), struck by the same moneyer, CEOLHEARD, is superior to that on many of the other coins, the bust being fairly rendered.

Of the other moneyers, SIGESTEF and HEREBERHT were decidedly attached to the Canterbury mint, and reasons have already been given why EALHSTAN may be regarded as having belonged to the same place. The minting places of CIOLBALD, EADGAR, and EANULF, and WODEL are more difficult to determine; but the cross-crosslet type of the first, and the resemblance between the coin of the last and that of HEREBERHT, seem to point to Canterbury as their home. EADGAR seems to have minted for Ludica.

Of the coins of Beornvulf, Ceolvulf's successor, there were two examples struck by EADNOTH and MONNA. The former continued to work under Ludica and Burgred. The latter may possibly be the same person as the MONN who coined for Ethelstan I. of East Anglia.

Of the late Mercian kings, Ludica, Wiglaf, Berhtulf, and Burgred, not a single coin appears to have been

present, but of Ecgbeorht, King of the West Saxons, there were three pennies, two of them struck by Kentish moneyers, SWEFNERD and DIORMOD, and the third by BOSEL—as this, too, has the peculiar monogram which probably represents Dorobernia Civitas, it may also be regarded as a Kentish coin. It is worth while here to observe that a large proportion of the coins bearing the name of Ecgbeorht must have been struck at Canterbury. Of the six coins engraved in Hawkins, four have Dorobernian types and moneyers, a fifth has the central **A**, and appears to have been struck by EALHSTAN, who was probably a Canterbury moneyer. The sixth only (159) is essentially West Saxon. Of the twelve coins engraved by Ruding, eight were struck by the Kentish moneyers DUNUN, ETHELMOD, OBA, SIGESTEF, and SWEFNERD. In my own collection is a penny of another type (Hawkins, No. 15) struck by WERNEARD, the device of which appears to be a pall and cross combined, much as on the coin of Baldred here described as No. 7. This coin was found in Kent. Some of Ethelvulf's coins were also probably struck at Canterbury. But to return to the list which comprises a number of archiepiscopal coins.

Those of Vulfred are of known moneyers, as are also those which are classed as uncertain. Those with the side face minted by OBA and WERNEARD appear to me to have been probably struck after the death of Æthilheard in 805, and before Archbishop Vulfred had received the pall from Rome and had thus been fully recognised as his successor. Both these moneyers coined under Baldred.

The coins with the full face, struck by SWEFNERD and LUNING, and those with the side face struck by the former, are of smaller size and more barbarous work than the others, and seem to me to be rather later in character, so

that they were not improbably struck after Vulfred's death in 830, during the short occupation of the see by Feogild and the interval which must have elapsed between the appointment of Ceolnoth and his confirmation in the see. The name of LUNING does not occur on any of the regal coins.

The Papal coin which I have here ventured to attribute to Leo III. has by Fioravanti and other authors been assigned to Leo VIII. The reason for their attributing the coin to this Pope appears to have been that there exist other coins with the legend on the obverse divided by two horizontal lines in the same manner as on this coin, but reading LEONI PAP. OTTO, and as it was the Emperor Otho the Great who in 963 deposed Pope John XII. and placed Leo VIII. in the chair of St. Peter, there is good ground for such an attribution.

There is, however, no reason for assuming that all the coins bearing the name and title of a Pope Leo arranged in three lines belong of necessity to one and the same Pope, and indeed the style and the lettering of the Delgany coin differ from those on the coin with the name of Otho. At the same time the arrangement of the legend and the peculiar form of the $\bar{\Lambda}$ correspond with those on the coins of Offa, which appear to have been minted at Canterbury, and the legend in three lines is like that on the coins of Eadbearht, King of Kent. Looking at the connection between the ecclesiastical metropolis of England and Rome, and also to the fact that the pennies of Offa were not improbably the first coined in England, it is at all events possible that a Papal coin such as this may have been the prototype of his and Archbishop Jaenberht's coins as well as of those of Eadbearht. In that case, however, the prototype must have been a coin of one of the predecessors of

Leo III., and I am not aware of any coins of Stephen III. or of Adrian I. with the legend arranged precisely in this fashion, though the coins of St. Zachary, who was Pope from 741 to 752, have his name, ZACCHARIAE, divided into three lines. The bust of St. Peter on the coin which I attribute to Leo III. is more closely related in style to that on a coin of Pope Adrian I. than it is to that on the coins of Leo VIII. That this coin should somewhat differ from the coins of Leo III. which have been already published is the less remarkable when we consider how rare are the coins of the early Popes, and that the attribution in vogue for many of them must be regarded as, at the best, doubtful. During an occupation of the see of Rome for twenty-one years, there was ample time for Leo III. to have struck more than the three varieties of coins which at present are assigned to him. But above all, this Delgany coin was found in a hoard with other coins, the latest of which is about 130 years earlier in date than the accession of Leo VIII.

Enough has, however, been said upon this question, the absolute decision of which must be left to foreign numismatists.

But there still remains one English numismatic question on which this hoard throws considerable light, though only to substantiate the opinion at which most who have studied the question have already arrived. I mean the question as to which coins should be attributed to Ceolvulf I. of Mercia. The absence from this hoard of the coins of any of the successors of Ceolvulf I., with the exception of a few of Beornvulf, is conclusive against any coins it comprises bearing the name of Ceolvulf being those of the second Mercian king of that name. This entirely agrees with the conclusions of the late Mr.

Lindsay and of Mr. Kenyon in the new edition of Hawkins. I need not, therefore, dwell upon the subject, but may take this occasion to point out that three of the four moneyers at present known of the two types still attributed to Ceolvulf II. (A.D. 874—880), viz., DEALING, EALDOVULF, and LIOFVALD, seem to have minted for Alfred (A.D. 872—901), while the fourth, DUDECIL, as Mr. Kenyon has pointed out, was a moneyer of Burgred's.

I now turn to the general features of this hoard: the question of its origin, and the manner in which it came to be deposited in Ireland.

In calling attention to the various coins it will have been observed that I have insisted much on their Kentish character, and have pointed out that most of the coins, even of the Mercian and West Saxon kings, which are present in the hoard, must, like those of the Kentish kings and archbishops, have been minted at Canterbury. It is, of course, well known that after the battle of Otford, in A.D. 774, Mercian supremacy was established in Kent, and though Eadbearht may have held the throne in opposition to Mercia, it was but for a few years, as in 798 he was captured by Coenvulf, and both Cuthred and his successor Baldred were merely tributaries of the Mercian kings. Mr. Kenyon⁴ has already pointed out that some of the coins of Offa were probably struck in Kent; and the fact that several of his moneyers struck coins either for Kentish kings or with essentially Canterbury types is indisputable. Unfortunately it is not until after his death that the names of the moneyers appear on the archiepiscopal coins, the coins of Jaenberht and Æthilheard merely giving the King's name on the reverse. The

⁴ Hawkins, 2nd ed., p. 32.

types, however, of many of the coins of Offa, of Eadbearht, and of these two Archbishops are almost identical. Compare, for instance, the compartments on the coin of Jaenberht (Ruding, Pl. XII.) with those on the coin of Offa (Ruding, Pl. V., 37, 38, and 40), or the reverse of Æthilheard (Ruding, Pl. XII., 1) with the obverse of Offa (Ruding, Pl. IV., 20, 21, 22; Pl. V., 23, 24), or that of Eadbearht (Rud., Pl. III., 1) with that of Offa (Rud., Pl. IV., 20). And if these coins were struck at Canterbury it seems not improbable that other types also may have been, especially when it is considered that the ecclesiastical metropolis must have been the centre of the civilisation of the day, and, unlike Lichfield, its rival as an archiepiscopal see, was within ready communication with the continent. Moreover, if OBA, EOBA, and EABA were, as there seems much reason for supposing,⁵ one and the same person, the numerous coins of Offa and his queen Cynethryth bearing this name must have been struck at Canterbury, assuming that the "tribrach," under all its various forms, is significant of the archiepiscopal pall.

Both Obadiah Walker and Pegge⁶ have recognised the pall on some of the coins of Plegmund, and some years ago⁷ I suggested that the "tribrach" on the coins of Cuthred and Æthilheard represented this object, and that the coins of Coenvulf bearing the same device were also struck in Kent. I must take this opportunity of saying a few more words upon the subject.

The pallium or pall has been⁸ defined to be a pontifical ornament worn by Popes, patriarchs, primates, and metro-

⁵ Lindsay's "Heptarchy," p. 30.

⁶ Pegge, "Coins of the Archbishops of Canterbury," p. 16.

⁷ "Num. Chron.," N.S., vol. v. p. 360.

⁸ Rees's "Encyclop.," *s.v.*

politans of the Romish church over their other garments as a sign of their jurisdiction. Though at first a part of the Imperial habit, the privilege of wearing which was only granted by the Emperors, the right of conferring it was gradually assumed by the Popes. In the eighth century the right assumed extreme consequence, and it was at length declared unlawful for a metropolitan archbishop or primate to exercise any branch of his power until he had received his pall from Rome; indeed metropolitan jurisdiction and power were said to be conferred by the pall. Its possession therefore became of the utmost importance, and, as a rule, the newly appointed metropolitan had to journey to Rome in order to receive it. I have elsewhere⁹ pointed out that the coins of Æthilheard, with the title of Pontifex instead of that of Archiepiscopus, not improbably belong to the period between 790, when he was elected as Archbishop, and 793, when he received the pallium. In the case of his immediate successors, the moneymen of the archiepiscopal mint seem to have struck a kind of *sede vacante* coins in their own name in the interval between the death of one archbishop and the confirmation of the next in his see by the Pope.

Whatever may be or may have been the exact form of the pall, we have a good representation of its conventional form in the heraldic pall which is the principal ordinary in the arms of the sees of Canterbury, Armagh, and Dublin. It is a Y-shaped figure, in general outline the same as the tribrach on the coins. It is argent or white, and edged or fringed with gold, and charged with crosses. In the "double tribrachs" on the coins it may be that we have this edging represented, while the ends are curved back

⁹ "Num. Chron.," N.S., vol. v. p. 558.

so as to form pastoral staffs. In some instances a small pall forms the central device of a coin, while three limbs forming a large pall issue from the small inner circle. In other instances three crosses introduced into the legend appear to represent the ends of the pall. These crosses may possibly, however, bear reference to the Trinity, but even so the device is ecclesiastical. On one of the coins of Ecgbeorht a pall with recurved ends forms the central type, and on others a pall is combined with a cross.

There was a second episcopal mint in Kent,¹⁰ viz., that at Rochester, where coins of Ecgbeorht appear to have been struck, but none of the coins in the Delgany hoard can be safely attributed to that mint. It is, however, abundantly evident that the great majority of the coins are of Kentish origin, and that the hoard is such as might well have been found in that county. It is indeed the most essentially Kentish hoard of which we have any record.

The question arises, how came it to be deposited in Ireland? On a careful examination of the coins it is evident that those latest in date among them are of Beornvulf, A.D. 820 to 824, unless possibly some of the uncertain archiepiscopal coins belong to the intermediate period between Vulfred and Ceolnoth, or about A.D. 830. It is indeed probable that the date when these coins were carried away from England was within a few years of that time.

The presence in Ireland of English treasure can hardly have been due to commerce or to any raid of Irish upon our coasts. It seems far more probable that these coins formed part of the spoil of some Danish invaders, who in

¹⁰ Hawkins, 2nd ed., p. 113.

some way transported them to Ireland. Now Danes,¹¹ pagans, or heathens are said first to have come to that country in A.D. 795, and by A.D. 853 kings or princes seem to have founded dynasties in Dublin, Waterford, and Limerick, so that their occupation of the country must have been on an extensive scale. As active seafarers, their intercourse with their brethren on the continent must have been constant; and the numerous finds of Saxon coins in Ireland, sometimes intermixed with Hiberno-Danish coins, testify to their having long preserved the predatory instincts of their race.

There is moreover one remarkable fact which seems to throw an important light on the relations between England and Scandinavia in early times. It is this, that neither in Sweden, the soil of which country may be said to teem with Anglo-Saxon coins, nor yet in Denmark itself are any such coins found of so early a date as A.D. 830. From the new edition of Hildebrand's great catalogue it appears that the earliest Saxon coin found in Sweden, and preserved in the Royal Cabinet of Medals at Stockholm, is of Eadweard I., A.D. 901 to 924, and the sum total of all the coins before the reign of Eadgar, A.D. 959, amounts to only five. In Denmark, my friend Prof. C. F. Herbst informs me that so far as he is aware not a single coin struck in England before the year A.D. 830 has ever been found. In Norway, however, some few have been discovered, but as a rule singly, or at most two together. It will be worth while to mention the few instances of the finding of early Saxon pennies in Norway which have been placed on record in the publications of the Royal Society

¹¹ *Annales Cambriæ, and Brut y Tywysogion sub anno.* See also the *War of the Gædhil with the Gaill*, ed. 1867, p. 81.

of Northern Antiquaries.¹² Of Coenvulf two coins have been found. One of these, however, formed part of a necklace of seven coins found in a grave, six of which were French, one being of Charlemagne and five of Louis le Debonnaire. The second coin of Coenvulf is said to have been found long ago with a coin of Ceolwulf and three French coins, one being of Louis struck at Rheims. The only other penny is one of Vulfred's which had been gilt as an ornament, and was found with late Roman, Byzantine, French, and Cufic gold or silver-gilt coins. It is therefore evident that in all these cases there is nothing suggestive of a treasure carried off by Vikings on a plundering expedition into Britain.

And yet the recorded inroads of Danes into Southern Britain during the first half of the ninth century are more numerous than all the coins of that period known to have been found in Scandinavia put together. May it not have been the case that many of these incursions were made, not by the Eastern Danes of the Continent, but by the Western Danes from their Irish settlements? Certainly the discovery in Ireland of this hoard of Kentish coins—for as such they must be regarded—taken in conjunction with the absence of such hoards in Scandinavia proper, is in the highest degree suggestive of this having been the case. The fact that many of the early incursions were made in Cornwall or West Wales, and on the Southern, and not the Eastern or Northern, coasts of Britain, is also corroborative of this view. It is also to be noted that the early chroniclers often speak of these invaders as the heathen men or pagans, as if uncertain of the

¹² See "Aarbøger for Nordisk Oldkyndighed og Historie," 1877, p. 122—127.

country whence they came, though they also call them Danes.

But what record have we of any Danish invasion of the Kentish coast about the period to which, from internal evidence, the carrying off of these coins must be assigned? There need not, I think, be much hesitation in regarding the conquest of the Isle of Sheppey, A.D. 832, as having furnished this treasure. In the year¹³ "the heathen men ravaged Sheppey," or as Ethelwerd¹⁴ puts it, "Pagani territoria popularunt loci qui dicitur Sceapige."¹⁵ Florence of Worcester identifies the pirates as Danes, as does Henry of Huntingdon.¹⁶ Geffrei Gamar¹⁷ speaks of the event as still remembered some three centuries afterwards—

" Done vindrent la paene gent
Si prairerent tote Eſcepaie
Unckes de homé n'urent maneie;"

and now, after a thousand years, a part of this Danish plunder returns to its native home and helps to illustrate the numismatic history of the period when the substance and treasures of Kent were given to the heathen for a spoil.

JOHN EVANS.

¹³ "Anglo-Saxon Chron." *sub anno*.

¹⁴ Chron., Lib. III. cap. 2.

¹⁵ Chron. *sub anno*.

¹⁶ "Hist. Anglor.," Lib. IV.

¹⁷ "L'estorié des Engles," l. 2358.

MISCELLANEA.

NOTE ON SOME STERLINGS OF JOHN OF HAINAULT.—I have thought it would be interesting to call attention to a coin which was found some time ago by a friend-of mine, in a ploughed field at Erpingham, within a few miles of Worsted, in Norfolk. It is a denier, or penny, of John II. d'Avesnes, Count of Hainault and Holland, who governed the former province from 1280 to 1305, and who was the grandfather of Philippa of Hainault, who in 1326 married the Prince of Wales, afterwards Edward III. On the obverse is the full face of the count, and around it the inscription I. COMÆS ḡNONIÆ; on the reverse, a long cross extending to the outer margin of the coin, containing three pellets within each quarter, and the legend being MONETꝛ MONTG̃S, which refers to Mons, the principal town of Hainault, where it was coined. It is a matter of history that owing to the extensive manufacture of woollen goods at Worsted and its neighbourhood a certain description of such goods was afterwards, and is to this day, known under the name of worsted goods. It is further well known that the manufacture of those goods became extensive in the reign of Edward III., and that it was greatly improved by Flemish settlers, encouraged, no doubt, by the nationality of the Queen Consort. It is extremely probable, therefore, that this coin was once in the possession of a Flemish settler in these parts, and I am only sorry that my friend was not sufficiently alive to the possible importance of his discovery to search for other specimens, as this may have formed one of a hoard. This coin is very similar to a denier of Mons represented by Thomas Snelling in his "Treatise on Counterfeit Sterlings," Plate III. No. 2; but it can only be included under that head in the sense that it might have been interchangeable for ordinary purposes of currency with the English penny. Its genuineness as a Flemish coin is undoubted.

A second denier of Mons, also coined by John d'Avesnes, I discovered in a miscellaneous lot of coins lately belonging to a collector. It differs from the other in the name of the count being more fully set forth, the inscription on the obverse being IOḡ. COMÆS ḡNONIÆ. There are coins similar to these in the British Museum, and in general aspect they differ but little, especially when they are worn or defaced, from the sterling pennies of Edward I., II., and III. It is possible that on that account they were not of uncommon occurrence in England.

The silver is of good quality and the coins, apparently, not of less intrinsic value than our own pennies. Since writing the above I have discovered in my collection a denier of Lewis of Bavaria, which is interesting in connection with the coins above mentioned. It has on the obverse the head of the King crowned with the inscription LVDOVICVS ROM. REX and on the reverse ΜΟΝΕΤΑ ΠΟΤΕΝΣΙΣ (*i.e.* of Aix la Chapelle), and is the identical coin depicted in Snelling's "Counterfeit Sterlings," Plate III. 18. Lewis married Margaret, the eldest sister of Philippa of Hainault, and this coin must have been issued before 1326, as in that year he was crowned Emperor at Rome, and was henceforth described on his coins as Emperor (or with an abbreviation of that title) instead of Rex. In common with the other deniers referred to, it is very similar in general aspect to the English pennies of the period, but in one quarter of the cross on the reverse, in lieu of pellets, as in other quarters, it has the single-headed eagle, and which also forms the mint-mark on the obverse.

H. MONTAGU.

For further information on such coins our readers are referred to M. Chautard's book, "Imitation des Monnaies du Type Esterlin," Nancy, 1871.—*Ed. Num. Chron.*

FIND OF COINS.—On the 9th of November last, as the thatched roof of an old house at Broughton Astley, Leicestershire, was being replaced by one of slate, there were found wrapped up in a piece of old home-spun some crowns, half-crowns, and shillings of the seventeenth century.

Some of them had been given away by the owner of the house to his six sons, but I had the opportunity of looking over the undermentioned, which for the most part were in good, though not in fine condition. Two crowns, one of Charles II. (1684), the other of William III. (1696). Three half-crowns of Charles II. (1670-76-83). One half-crown of William III. (1696), five of the year 1697; two more of that year, with the mint-mark B. One shilling of William III., of the year 1696; and two "CAROLVS A CAROLO" farthings.

A. P.



V.

APHRODITÉ-NÉMÉSIS.

EN réunissant tous les détails, que les auteurs anciens, Pausanias, Strabon, Pline d'après Varron, les lexicographes et autres, dont les témoignages ont été réunis par M. Overbeck,¹ nous ont laissés sur la statue de Némésis, consacrée dans le temple de Rhamnonte en Attique, on arrive à se faire une idée approximative de ce que doit avoir été cette statue, célèbre dans l'antiquité et que Varron prisait entre toutes.

Elle avait été sculptée par Agoracrite de Paros, le disciple préféré de Phidias et ressemblait tellement aux œuvres du maître, de l'atelier duquel elle était sortie, qu'elle passait généralement pour être conçue, sinon exécutée par Phidias lui-même. La déesse, primitivement Aphrodité et qui en avait conservé les attributs, mais dont le nom avait été changé en Némésis, quand l'Aphrodité d'Alcamène, faite en concurrence avec elle, fut jugée meilleure, était haute de dix ou onze aunes et le sculpteur l'avait taillé dans un

¹ Pausan. i. 33; Strabon, ix. p. 396; Pline, H. Nat. xxxvi. 17; Suidas, Photius, Hesyche, Zenob. v. 82, v. *Ῥαμνονσία Νέμεσις*. Tzétzès, Chil. vii. 931, Epist. 21; Anthol. Gr. ii. 185, 6; iii. 215, 4; iv. 170, 257; Pompon. Mela, ii. 3; Solin. 7, 26. Overbeck, *antike Schriftquellen zur Gesch. d. b. Künste*, 1868, p. 148—150. *Gesch. d. Griech. Plastik*, i., 1881, p. 277—279. Brunn, *Gesch. d. Gr. Künstler*, i., 1853, p. 240—242.

bloc de marbre blanc de Paros, abandonné dit-on sur le champ de bataille de Marathon par les Perses, qui l'auraient érigé en trophée, s'ils eussent remporté la victoire.

Si cette anecdote n'est pas dénuée de tout fondement, il est probable que le bloc avait la forme conique ou pyramidale, sous laquelle Aphrodité et Astarté étaient adorées en Cypre, en Phénicie et en d'autres parties de l'Asie et que c'est là ce qui l'a fait considérer comme une image divine, un béthyle, destiné à être érigé en signe de victoire par ceux des soldats de l'armée perse, dont Astarté-Aphrodité était la déesse spéciale.²

Vu la hauteur de la statue, Némésis doit avoir été représentée debout, comme Aphrodité l'est d'ordinaire. Elle avait la tête ceinte d'un stéphanos, orné de cerfs et de figurines de Niké. De la gauche elle portait une branche de pommier,³ à laquelle était suspendue une petite tablette portant la signature de l'artiste: **ΑΓΟΡΑΚΡΙΤΟΣ ΠΑΡΙΟΣ ΕΠΟΙΗΣΕΝ**. La main droite tenait une patère décorée de figures d'Ethiopes, qui ont fort intrigué Pausanias. Une frise, décrite en détail par le périégète, couvrait la base. Jusqu'ici, on n'a pas rencontré, que je sache, d'Aphrodité répondant précisément à la description de la Némésis d'Agoracrite. Pourtant il y en a une, si je ne me trompe, sur un statère cypriote inédit, qui fait partie des trésors du British Museum.

² Servius ad Virg. Æn. i. 719. Apud Cyprios Venus in modum—metæ colitur. Maxime de Tyr. *Dialexis*, 38. Παφίους μὲν ἡ Ἀφροδίτη τὰς τιμὰς ἔχει, τὸ δὲ ἄγαλμα οὐκ ἂν εἰκάσαι ἄλλῳ τῷ ἢ πυραμιδι λευκῇ, et autres.

³ Ou de tout autre arbre fruitier, dont les fruits étaient désignés sous le nom de μῆλα. Sur le statère les feuilles et les fleurs font penser à ceux du grenadier.

Zeus Salaminios, assis de face sur un trône à dossier, les pieds posés sur un escabeau, le bas du corps enveloppé dans un manteau, s'appuyant de la gauche sur le sceptre surmonté d'un aigle (?) et tenant de la droite un objet, qui semble être une patère, ce que le mauvais état de cette face de la monnaie ne permet pas de constater ; on ne voit pas non plus si la tête est couronnée. Autour $\text{Α Π Ε Σ Τ Ε : Α Τ Ε Σ Τ Ε} :$
*βασιλέως Νικοκλέως.*⁴

Rev.—Aphrodité debout de face, vêtue du chiton attique ceint au dessus de la diplois, et d'un manteau attaché aux épaules par une agrafe en forme de tête de griffon, le symbole de Némésis. La tête est ceinte d'une couronne de feuilles. De la gauche baissée elle porte un long rameau garni de feuilles et, au bout, de fleurs et d'un fruit. De la droite elle tient une patère au dessus d'un thymiaterion. Autour $\text{Κ Ε Σ Τ Υ Τ Ω Δ Ε Ε Ψ (?) βασιλέως Δαμόνικων κασιγνητων ?}$ ⁵

R. 25/22m. 11 gr. 02 ; statère troué, endommagé et, au droit, mal frappé. Pl. V. agrandi de trois fois son diamètre.

En cas que les noms des deux rois n'eussent pas pu être déchiffrés, ce qui ne m'a pas réussi sans peine, la date approximative du statère n'en eut pas moins pu être déterminée. L'absence du carré creux ne permet pas de remonter au delà du règne d'Euagoras I., 410—374, et le nom de ce roi, qui parvint à se rendre maître de l'île presque entière, ne se lit pas sur la monnaie. Par contre le style

⁴ Le nom Νικοκλής, Ν Κ Ν Κ Λ Η Σ se lit encore dans l'inscription, publiée par M. Schroeder dans les Transactions of the Soc. of Bibl. Arch. vi., 1878, p. 134—143.

⁵ La transcription des trois dernières lettres n'est pas certaine ; la dernière lettre semble plutôt *se* que *ge* ou *ke*.

Une autre monnaie de Démonicus vient d'être gravée dans R. Kekulé, die Reliefs an der Balustrade der Athena-Niké, 1881, p. 1, vignette :

Hercule debout de face, la tête tournée à droite, étouffant

large et facile, dans lequel sont traités les deux figures, convient parfaitement aux années 374 à 354 environ, pendant lesquelles les fils d'Euagoras se disputèrent la couronne. D'abord Nicoclès occupa le trône et rivalisa avec son ami Straton, le roi de Sidon, à qui déployerait le plus de faste⁶ et jouirait le premier des hautes nouveautés qu'Athènes, le Paris de l'époque, s'empressait sans doute de leur faire parvenir. C'est bien un roi tel que Nicoclès, auquel Isocrate adressa ses discours bien connus, qui aura fait venir d'Athènes les coins de ses monnaies et pour lequel un graveur sorti de l'école de Phidias, aura gravé un Zeus et une Aphrodité, d'après les statues les plus estimées du maître, ou de ses meilleurs élèves.

Car il est évident que l'Aphrodité est une copie d'une statue athénienne de la fin du 5^e siècle. Non seulement elle répond à la description de la Némésis d'Agoracrite, mais encore elle est identique, sous plusieurs rapports, à la

le lion de Nemée. A dr. croix ansée ; à g. $\Psi \Theta \Gamma$: $\Delta \alpha \mu \acute{o} \nu \iota (\kappa \omega \nu)$.

Rev.—Pallas assise à g. sur une proue à g., tenant de la dr. un aplustre. Elle porte le casque corinthien à aigrette. Devant $\text{☩} \text{✠}$: $\beta \alpha \sigma \iota (\lambda \acute{\epsilon} \text{F} \omega \varsigma)$.

R. 5. 6²⁸ = 97 gr. angl. Catal. de Cesnola, 1871, n. 357.

R. 5. 6³⁰ gr. Musée de Berlin, de la coll. Fox. Je dois une empreinte à l'obligeance de M. Friedlaender.

Même type, sans légende apparente.

Rev.—Même type, mais Pallas porte une chouette. Devant, croix ansée, derrière $\text{☩} \text{✠}$: $\beta \alpha \sigma \iota (\lambda \acute{\epsilon} \text{F} \omega \varsigma)$.

R. 2. 1²³ gr. British Museum ; de Luyn. Num. Cypr. p. 31, pl. vi. 4.

Quelques bronzes de Salamine, catal. C. G. Huber, 1862, n. 697, sur lesquels se voit la même proue, portent à croire que c'est à Salamine que ces pièces de Démonicus ont été frappées.

⁶ Engel, Kypros, 1841, i. p. 330, 331. Athènes, xii. p. 531.

Parthenos de Phidias, telle qu'elle vient de nous être révélée par la statuette, récemment déterrée à Athènes.⁷ Ce sont les mêmes formes amples et arrondies, la même pose à peu près, la même tunique ceinte de même manière ; les bras et même les doigts sont dans la même position. Les attributs seuls sont changés, la coiffure suit une mode plus récente et les plis du vêtement sont moins raides et plus variés. Du reste, enlevez à l'Athéné-Parthenos l'égide, le casque, le bouclier et la Niké et remplacez-les par le manteau, la couronne, la branche et la patère et vous aurez l'Aphrodité du statère et bien certainement aussi celle qu'on admirait dans le sanctuaire de Rhamnonte.

Du premier moment que j'ai eu en mains l'empreinte de cette précieuse monnaie, que mon ami, M. Imhoof-Blumer a bien voulu me communiquer, j'ai été frappé de la grandeur et de la noblesse de cette figure d'Aphrodité et de sa parfaite conformité avec ce qui nous est resté de l'art de Phidias.⁸ Il n'y a pas à s'y méprendre. Cette figure, modelée avec autant de simplicité que de hardiesse, doit être l'œuvre d'un maître du premier rang. Plus on la regarde, plus elle commence à vivre. Parfois elle semble avancer et sortir du champ de la monnaie.

Il est bien dommage que le droit de ce statère soit si fruste ou si mal sorti du coin et que la statue de Jupiter ne soit plus reconnaissable dans tous ses détails. Qu'il serait agréable de pouvoir contempler dans cette image la plus ancienne copie du Zeus Olympios de Phidias lui-même. Il m'est impossible de reconnaître une Niké sur la main

⁷ Il y a une bonne réplique de la Parthenos à Madrid, Musée national du Prado, n. 1635, dont la gravure de Clarac, Musée de Sculpture, iii. pl. 474A, n. 902A, ne donne qu'une faible idée.

⁸ Les dimensions de la figure sur la planche sont exactement triples de celles de l'original.

du dieu. Il semble qu'il n'y a qu'une patère comme celle que Zeus Salaminios tient de la droite sur les monnaies frappées en Cypre sous les empereurs romains.⁹

Pourtant je ne crois pas que les disciples de Phidias, quand ils avaient à exécuter une statue de Zeus, et il paraît qu'Agoracrite et Théocosme en ont faites,¹⁰ se soient éloignés de beaucoup du type créé par le maître. Les attributs auront varié quelquefois, une patère peut remplacer la Niké, mais du reste rien n'aura été changé. En effet le Zeus, tel qu'il siège sur le statère Cypriote, correspond parfaitement au Zeus de Phidias, que nous connaissons par le bronze du Musée de Berlin, frappé en Elide sous l'empereur Hadrien et qui a été publié d'abord par M. Friedlaender et ici même par M. Gardner,¹¹ si on veut bien tenir compte du fait reconnu, que les graveurs de coins ne copiaient jamais littéralement et que, pour modeler, sur une monnaie, une figure assise vue de face, il fallait effacer et tourner un peu à droite et à gauche, les parties les plus saillantes. C'est ce que l'artiste, qui a gravé les coins du statère, a su faire avec un art merveilleux et une hardiesse extrême.

Une statue, aussi célèbre que l'était la Némésis de Rhannonte, tant admirée par Varron,¹² doit avoir été copiée plus d'une fois, et sans doute il existe encore, dans quelque musée de l'Europe—outre la tête originale,¹³ retrouvée

⁹ Mionnet, iii. p. 671—674, n. 8 et suivantes.

¹⁰ Agoracrite à Coronée, Théocosme à Mégare : Overbeck, *Schriftq.* p. 148, 153. Pausan. ix. 34, 1 ; i. 40, 4.

¹¹ Friedlaender, *Archaeol. Zeitung*, xxxiv., 1876, p. 34 vign. ; P. Gardner, *Num. Chron. N.S.* xix., 1879, p. 268—272, pl. xvi., xv. 2, et K. Muenzk., Berlin, 1873, n. 640, pl. ix., où le Zeus est tourné à droite en profil.

¹² Pline, l. c. : quod Varro omnibus signis praetulit.

¹³ Et non des fragments de draperie, comme le croit M. Overbeck, *Griech. Plast.* i. p. 278.

mutilée dans le temple même et depuis 1820 au British Museum¹⁴—des répliques que la pose et l'habillement feront reconnaître comme telles,¹⁵ maintenant que le statère cypriotte permet de se faire une idée approximative de l'œuvre d'Agoracrite.

Qui sait si ces répliques n'ont pas été métamorphosées en autres déesses, en les garnissant d'attributs étrangers, par ceux qui se sont occupés de restaurer les statues antiques, rarement intactes au moment où on les déterre. Peut-être aussi qu'un nouvel exemplaire du statère, unique, à ce qu'il paraît, jusqu'à présent, viendra quelque jour nous permettre de constater certains détails qui nous échappent aujourd'hui.

Les types conviennent fort bien à Salamine, où le culte de Zeus Salaminios n'était pas moins fréquent que celui d'Aphrodité.¹⁶ Il n'est donc pas nécessaire de chercher dans les

¹⁴ Guide to the Sculptures in the Elgin Room, ii. 1881, p. 36 (E 4). "Fragment of colossal head, showing the right cheek, right eyelid, and right side of the head as far as the ear. On the crown of the head eleven holes are pierced in the marble, evidently for the attachment of a wreath or other ornament. The left side and back of the head have been cut or broken away. So far as can be inferred from the little original surface remaining, this head was in a fine style. Height 1 foot 4½ inches. Found at the site of the temple of Nemesis, at Rhamnus in Attika. Presented by J. P. Gandy Deering, Esq., 1820." L'attribution de cette tête à la Némésis d'Agoracrite a été proposée dans : the Library of Entertaining Knowledge ; Elgin Marbles, 1833, ii. p. 173, n. 325 et dans Chr. Walz, de Nemesi Graecorum, 1852, p. 22.

¹⁵ Voyez l'Athéné, gravée dans Michaëlis, Parthenon, Pl. 15, 4, et Clarac, iii. pl. 354, n. 1021, pl. 438A, n. 774c ; v. pl. 978B, n. 2524g, statues qui présentent quelque analogie de pose et d'habillement et en outre la Junon, Overbeck, Griech. Kunstmyth. iii. v. i. 1, et la Ichnophore, H. Descamp, Galerie de marbr. antiq. du Musée Campana, 1867.

¹⁶ Engel, Kypros, ii. p. 662. Ammian. Marc., 14.

rois, qui se disent frères,¹⁷ βασιλέως Νικοκλέως, βασιλέως Δαμόνικου κασιγνήτου ou κασιγνήτων, d'autres souverains que les deux fils d'Euagoras I., Nicoclès, qui lui succéda et Démonicus, que Constantin Porphyrogénète nomme roi et que Tzétzès dit fils d'Euagoras.¹⁸

Le statère des deux frères convient le mieux, ceme semble, à l'année 374, quand par la mort tragique d'Euagoras et l'expulsion, à ce qu'il paraît, de son fils aîné Pnytagoras,¹⁹ qui ne recouvrit le trône que peu de temps avant 351,²⁰ le royaume de Salamine se trouva de fait en mains des autres fils du roi défunt. Leur union ne fut pas de longue durée sans doute et Nicoclès resta seul le maître, mais comme nous avons vu Démonicus frapper des monnaies à son nom seul, on en viendrait à se demander, si ce n'est pas lui qui a fait périr Nicoclès, ἐπὶ δεσμῶν,²¹ et s'il n'a pas été détrôné à son tour par Euagoras II., n'était-ce qu'une hypothèse plus plausible était suggérée par les monnaies suivantes, qui prouvent que Démonicus a régné, pendant quelque temps du moins, à Kition.

Pallas Athéné debout de face, regardant à gauche, vêtue du chiton attique ceint au dessus de la diploïs, les épaules et la poitrine couvertes de l'égide, s'appuyant de la droite sur la haste et portant le bouclier au bras gauche levé. Sur la tête le

¹⁷ Si du moins je ne me suis pas trompé en lisant : κασιγε.

¹⁸ Engel, i. p. 325. Constant. Porphy. Them. Orient. 15 ; Tzétzès, Chil. ii. c. 332. Si le roi Démonicus est le même que celui qu'Isocrate dit fils d'Hipponicus, il doit avoir été adopté par Euagoras, peut-être après avoir épousé une des filles du roi. Sans cela, il faudrait admettre deux personnages du nom de Démonicus, que Tzétzès aura confondu, selon son habitude.

¹⁹ Engel, i. p. 323, 324, se trompe en croyant que Pnytagoras a péri en même temps que son père.

²⁰ Diodore, xvi. 42.

²¹ Engel, i. p. 330 ; Maxime de Tyr, Dissert. 4.

casque athénien à aigrette. Autour, cercle de perles.

Rev.—Dans un carré peu profond, Hercule barbu, les épaules couvertes de la peau de lion, combattant à droite, tenant dans la gauche l'arc, dans la droite levée la massue. Devant lui (Ⓞ) $\text{דמלך דמי (כבר) כרת (י)}$ = βασιλέως Δημο(νίκου) Κρι(έως).²²

R. 7. 10⁹⁵. Cab. de France. Mion. S. vii. p. 298, n. 574, Pl. VIII. 6; Galerie Mythol. Pl. XXVIII. 3; De Luynes, Choix de Méd. Gr., Pl. XI. 6; Satrap. p. 82, Pl. XIV. 21; De Vogüé, Rev. Num. 1867, p. 377, Pl. XI. 17. Brandis, Münzw. p. 510.

Même type entre ΒΑ(σιλέως) ΔΗ(μονίκου).

Rev.—Même revers, mais sans le carré creux. Hercule paraît imberbe. A dr. croix ansée.²³

R. 4½. 6⁹⁶. Cab. de France; Cat. Behr. n. 698, Pl. II. 3; De Vogüé, l. c. p. 377, Pl. XI. 8.

Il est donc assez probable, que Démonicus et Nicoclès, dont les initiales se voyent toutes deux sur des monnaies aux types et au nom d'Euagoras I.,²⁴ ont d'abord régné ensemble et se sont ensuite partagé le royaume. Nicoclès resta à Salamine. Démonicus alla régner à Kition, dont il fut sans doute expulsé, à la suite des mêmes événements qui causèrent la mort de Nicoclès, par Mélekiathon, qui

²² Le Duc de Luynes lisait מלך רשכר, mais la cinquième lettre est מ et non ש. Le comte de Vogüé a lu למלך דמנך et a reconnu qu'il s'agissait de Démonicus, mais les deux dernières lettres ne sont pas נך, mais plutôt כר, et il y a place pour une lettre encore. En combinant les deux leçons, on obtient une légende qui répond mieux à la forme des lettres.

²³ Sur les divisions assez nombreuses, aux mêmes types, le nom du roi ne paraît pas.

²⁴ Le Δ de Démonicus a été reconnu par le Duc de Luynes, Num. Cypr. p. 23. L'Epsilon de forme lunaire ε, des monnaies n. 4 et 10, Pl. IV. est plutôt un ni cypriote, initiale du nom de Nicoclès. Le n. 11 porte Fa(vax) , probablement le fils aîné, Pnytagoras, v. Engel, i. p. 317.

après un règne fort court, à en juger par la rareté de ses monnaies, fut succédé vers 362 par Pymiathon. C'est de 374 à 368 environ que Démonicus semble avoir régné. La Pallas armée, que Démonicus a fait graver sur le droit des monnaies qu'il a fait frapper à Kition, est aussi copiée d'après une statue athénienne de la fin du 5^e siècle. Non seulement elle est identique à l'Athéné, qui se voit sur la frise du temple de la Niké Aptéros,²⁵ et elle ne diffère que par une particularité essentielle de celle que représentent des bronzes athéniens de l'époque impériale, et dans laquelle M. P. Lange²⁶ propose de reconnaître la Pallas Promachos que Phidias érigea sur l'Acropole, mais il y a encore, dans les différents musées, une foule de statues au même type, plus ou moins variées,²⁷ qui toutes semblent dériver d'un original commun dont l'Athéné des monnaies de Démonicus paraît avoir conservé les traits les plus caractéristiques.

Il en est peut-être de même de l'Hercule combattant, dont le style est si excellent et qui ressemble tellement à celui de quelques monnaies d'Abdère,²⁸ que je me figurerais volontiers l'original, qui a servi de modèle en Cypre, jusque sous Pymiathon, et en Thrace, comme une œuvre de sculpture d'un des statuaires athéniens les plus renommés.

Les monnaies Ciliciennes, celles de Mallos et de Tarse

²⁵ Overbeck, Griech. Plast. 1881, i. p. 365, Fig. 81, b.

²⁶ Archaeol. Zeit. 1881, p. 198—206. Celle-ci repose sur le pied gauche à en croire les bronzes, l'autre sur le pied droit. Peut-on se fier à ces bronzes pour ce détail? J'en doute.

²⁷ Clarac, Mus. de Sculpt. iii. Pl. 461, n. 858; Pl. 462, n. 860, 862; Pl. 462B, n. 860B; Pl. 462D, n. 888D; Pl. 472, n. 898C; Pl. 473, n. 899A.

²⁸ Streber, K. Muenzk. in Muenchen, 1809, t. xii. 9; Num. Zeitschr., 1872, iv. t. ix. 11.

entr'autres, offrent d'autres exemples de types monétaires empruntés à des groupes ou à des statues, sans doute fort célèbres à cette époque. Mais ce n'est pas ici le lieu d'insister sur cette matière, qui exigerait un travail spécial.

Pour le moment il m'a semblé, qu'il était urgent de ne pas laisser plus longtemps inédit un monument d'une si haute importance pour l'histoire de l'art que l'est le statère de Nicoclès et j'espère que les archéologues sauront gré au conservateur du British Museum d'en avoir autorisé la publication.

Après avoir écrit ces lignes j'ai eu l'occasion d'obtenir un dessin de ce qui reste de la tête originale, ce qui m'a permis de constater comment sont disposés les trous qui ont servi à fixer la stéphanos de la déesse. Une rangée de sept trous fait le tour du front d'une oreille à l'autre, et était destinée sans doute à tenir en place une couronne de feuilles ou un cercle, dont les deux bouts se réunissaient dans un trou profond sur le derrière de la tête. Juste au dessus du front, derrière cette première rangée, un trou profond atteste qu'il y avait là un ornement pesant ou une barre de soutien, et droit derrière ce trou, presque au sommet de la tête, trois autres plus petits marquent la place d'un ornement plus large, ou plutôt de trois soutiens placés obliquement contre le stéphanos. D'après ces indices le stéphanos de Némésis semble avoir eu la forme qu'affectent ceux que portent les déesses sur trois hectés d'or de Mytilène, gravées et décrites par Sestini, *Stateri Antichi*, t. viii. 25; *Mion.* vi. p. 625, n. 87;—Sestini, t. i. 9; *Mion. S.* ix. p. 234, n. 47;—Sestini, t. viii. 26; *M.* vi. p. 622, n. 67; *Rec. d. pl.* lv. 3; *Friedlaender, Zeitschr. f. Numism.* viii. t. ii. 3. Une haute plaque décorée de palmettes et parfois découpée au sommet se courbe autour des

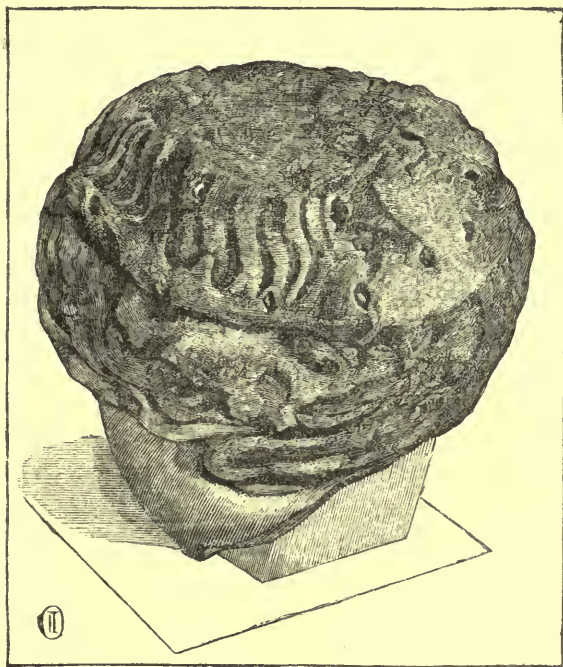
cheveux d'une oreille à l'autre. Elle est entourée et retenue en place par une bande, qui cachée en partie par les cheveux sur la première des trois hectés, se ferme et se fixe au dessus de la nuque.

Sur la tête colossale, où les proportions exigeaient des ornements plus développés, des figurines de Niké aggrou-



pées avec des cerfs auront pris la place des palmettes. Je me figure des groupes, comme celui qui est gravé dans Gerhard, *Denkm. und Forschung*, 1854, pl. lxii. 2. Une déesse ailée, vêtue du chiton attique, debout de face sur une bande étroite et adossée contre une surface plane, tient de chaque main la patte d'un animal, qui s'élance vers elle. Rien de plus propre à décorer un diadème,

comme celui des hectés de Mytilène, qu'un groupe pareil



et rien qui réponde mieux à la description de Pausanias.²⁹

²⁹ Un autre ornement de tête, fort curieux, mérite d'être mentionné, puisque la monnaie du roi Nicoclès, sur laquelle on le voit, n'a pas été publiée complètement.

Tête d'Aphrodité à gauche, de style archaïque, les cheveux longs et flottants. Elle porte une couronne, en métal, formée par des objets en forme de figurines aux ailes recoquillées, alternant avec des fleurons plus petits et reposant sur un cercle formé de pierres précieuses (?) Au dessous de cette couronne, qui rappelle celles du moyen-âge, un filet de perles encercle la tête et descend le long des oreilles sur le cou en forme de collier. Une petite statue avec base (?) semble servir de pendant d'oreille. Autour, cercle de perles.

Rev.—Tête à g. de Pallas, dont le casque corinthien est lauré et à aigrette, entre Σ - Φ (ΒΑΣΙΛΕΩΣ ΝΙΚΟΚΛΕΩΣ).

Sur les bronzes d'Aigospotamoi³⁰ une couronne de feuilles encercle le stéphanos de la déesse. Il peut en avoir été de même à Rhamnonte, ce qui ferait répondre encore mieux à l'original d'Agoracrite l'Aphrodité du statère cyprïote, sur lequel les feuilles de la couronne sont très distinctes, tandis qu'on ne voit pas clairement, tant cette partie du visage est fruste, si le front est surmonté, ou non, d'un diadème.

Il se peut aussi, que le stéphanos en métal n'a été composé qu'après que l'Aphrodité eut été changée en Némésis, ce qui aura nécessité quelques modifications de parure, et que la monnaie de Nieoclès nous donne l'Aphrodité comme elle était avant d'être munie de cette haute coiffure, qui convient en effet mieux à la statue colossale d'un temple qu'au type d'une monnaie de moyenne grandeur. Ce sont des détails, sur lesquels je n'aurais pas insisté, si je n'avais tenu à constater que la présence d'une couronne de feuilles ou l'absence d'un stéphanos ne peuvent servir de preuves contre l'identification proposée entre l'Aphrodité du statère et celle du sculpteur athénien, que la grande conformité des contours du visage favorise en outre visiblement.

J. P. SIX.

N. 2. 2⁷⁵. British Museum. Exemplaire tout à fait complet.

Sans légende apparente.

N. 1. 0⁷⁰. Cat. Thomas, n. 2406.

N. 1. 0⁶⁸. Mus. de Berlin. K. Münzk. 1877, n. 251.

N. 1. 0⁶⁶. Cab. de France; Mion. vi. p. 559, n. 42.

Rois Grecs, Pl. 32, 8; Borrell, Pl. n. 13.

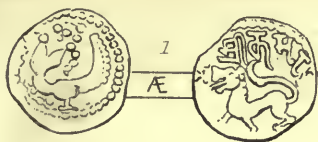
N. 1½. 0⁶⁶. Cat. Bompois, n. 1651.

N. 1½. 0⁶⁵. Coll. de Vogüé. Brandis, p. 510.

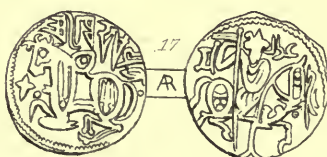
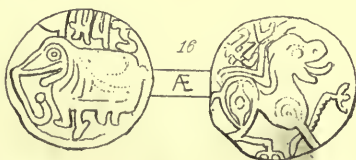
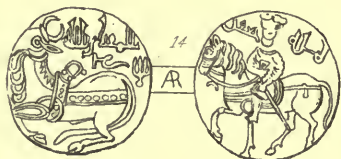
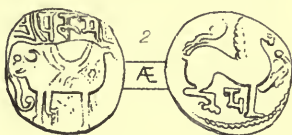
N. 1. 0⁶⁰. Coll. de Luynes. Brandis, p. 508.

Il est dommage que le flan restreint n'a pas permis au graveur de définir plus clairement les détails de cette couronne remarquable.

³⁰ Cat. of the Brit. Mus., Thrace, p. 187.



6
CU - PTA



F. J. Lees. Delt.

VI.

SAXON COINS FOUND IN IRELAND.

EADWEARD THE ELDER. A.D. 901—924.

TYPE, king's head to the right, within a plain circle, and on the reverse the moneyer's name in two horizontal lines with three crosses between the lines.

- | | | | |
|----|----------------|-------------------|-----------------|
| 1. | ✠EADVVEARDRE ✕ | ÆILOE ✠ ✠ ✠ MLIEB | Grains.
19·8 |
|----|----------------|-------------------|-----------------|

Type, king's head to the left. *Rev.* Same as No. 1.

- | | | | |
|----|----------------|---------------------|------|
| 2. | ✠EADVVEARDRE ✕ | ERAWV ✠ ✠ ✠ VI S WŌ | 22· |
| 3. | ,, | LARE ✠ ✠ ✠ ARDMŌ | 23·8 |

Type, a ✠ within a plain circle. *Rev.* A flower of seven petals and two branches with five leaves each over the moneyer's name, a circular flower of eight petals under the name.

- | | | | |
|----|----------------|---------|------|
| 4. | ✠EADVVEARDRE ✕ | HEREMOD | 22·8 |
|----|----------------|---------|------|

Type, a ✠ within a plain circle. *Rev.* Moneyer's name in two lines, with three crosses between the lines.

- | | | | |
|----|----------------|-------------------|------|
| 5. | ✠EADVVEARDRE ✕ | AÐEL ✠ ✠ ✠ VLFMŌ | 24·6 |
| 6. | ,, | EADDE ✠ ✠ ✠ LMMŌ | 23· |
| 7. | ,, | EADV ✠ ✠ ✠ LFMŌ | 24·4 |
| 8. | ,, | FINEF ✠ ✠ ✠ EARMŌ | 25· |
| 9. | ,, | TORHT ✠ ✠ ✠ ELMMŌ | 21·8 |

These coins are in good preservation, the silver is thin but the letters are very distinct on both sides. The average weight of the nine coins is twenty-three grains.

The names of ERAMVVIS, GAREARD, HEREMOD, and ATHELVLIF, are in Ruding's list of Eadweard's

moneymen. The names NEIOC, EADELM, and LINE-GEAR, the initial letter inverted, are not in any of Ruding's lists. TORHTELM occurs only as one of Æthelstan's moneymen. EADVLF first appears as a moneyer of Burgred, King of Mercia, and subsequently in the reigns of Æthelbert, Æthelstan, Eadmund, Eadred, and Eadwig. These nine coins contribute five additional names to Ruding's list of the moneymen of Eadweard.

ÆTHELSTAN, OR ETHELSTAN, A.D. 924—940, SON OF
EADWEARD THE ELDER.

Type, a ✚ within a plain circle. *Rev.* The moneyer's name in two horizontal lines, with three crosses between the lines.

- | | | | | |
|-----|------------------|---------|-------------|-----------------|
| 10. | ✚ EDEL S TPNRE X | BEOR | ✚ ✚ ✚ TRDM | Grains.
24.5 |
| 11. | „ | EDELSIG | ✚ ✚ ✚ EMONE | 21.2 |

Type—*Obv.* Same as No. 1. *Rev.* A pellet within a circle of seven pellets, or ✚.

- | | | | | |
|-----|------------------------------|---|-----------------------------|------|
| 12. | ÆDEL S TPNRE TōBRIE | ✚ | ABBAMōINLELEEF | 24.8 |
| 13. | ✚ EDEL S TPNRE X -
TōBRIE | ✚ | ADVLFMōVVI N-
LIVITATI S | 24. |
| 14. | ÆDEL S TPNRE X TOBRI | ✚ | M ELDOMENMōLEEE | 23.9 |
| 15. | ✚ EDEL S TPNRE X -
TōBRIE | ✚ | RELNTLDMōEFōR-
VIC | 25.4 |

Type, a † in the centre on the *Obv.* and *Rev.*

- | | | | | |
|-----|------------------------------|---|----------------------|------|
| 16. | ✚ EDEL S TPNRE X -
TōBRIE | ✚ | RELNTLDMōEōR-
VIC | 23.5 |
|-----|------------------------------|---|----------------------|------|

Type, a pellet within a circle of seven pellets (⊙) on each side.

- | | | | | |
|-----|-----------------------|---|-----------------------|------|
| 17. | ✚ EDEL S TPNRE X TōBR | ✚ | O S IALMONLE-
LEE. | 24.5 |
|-----|-----------------------|---|-----------------------|------|

The coins of Æthelstan are in good preservation and well struck like those of his father. The average weight of the eight coins is 23.9 grains.

The names ATHVLF, BEORARD, and ETHELSIGE, may now be added to Ruding's list of Æthelstan's

moneymen; the first was known as a moneyer of Eadweard the Elder, Eadwig, and Edgar, and the last coined for Eadmund, the brother and successor of Aethelstan. The other four moneyers are in Ruding's list; ABBA and OSLAC were moneyers of Eadweard. The letters IN, instead of ON, on No. 12, are unusual.

Ruding in his observations on the coinage of Eadweard says, "No legal documents, or records, are to be found; nor do the historians of his time furnish any information: the little which can be said upon the subject must therefore be collected from his coins which still remain," and that on the coins of Eadweard "the reverse has his moneyer's name, but no place of mintage." Æthelstan, his son and successor, was the first of the Anglo-Saxon monarchs who ordained laws for the regulation of the coinage, and that "it was at this time, probably, that the practice of stamping the name of the town upon the coins became general in the mints."¹

The legend on the reverse of an unpublished penny of Eadweard leads me to believe that the place of mintage was first stamped on coins in his reign. This coin, No. 1, is very perfect, it weighs 19·8 grains, and all the letters are unmistakable.

Obv. The king's head to the right, within a plain circle.
Legend, ✠EADVVEÆRDE✠; the R, which should be after the king's name, is omitted; the outer circle is beaded.

Rev. Legend, within a beaded circle close to the margin, consists of two lines across the field, three pellets over the upper, and also under the lower line, and three crosses between the two lines. NEIōE | ✠✠✠ | MCIEB.
The meaning of these letters seems to be NEIOC Monetarius CIVitatis EBoraci.

¹ Third edition, vol. i., pp. 125-6.

In the list of Æthelstan's mints are LOND . CI . , LONDON . CI . , and WIN . CI . , besides many other abbreviations of civitas, and a penny of Æthelstan, see No. 13, has VVIN CIVITATI S.

The designation of a mint in the cities of London and Winchester appears to be peculiar to the coinage of Æthelstan, as I do not find any indication of "civitas" in Ruding's lists of other mints.

Ruding gives a list of the names of seventy-four moneyers of Eadward, besides four "blundered" names. One of the latter consists of twelve letters, NEIOIRO-HEECI, which are more in number than in any of the recognised names in the list. The name of the moneyer, NEIOC, now first published, and the correspondence between it and first four letters on the blundered coin, together with the interpretation which I attribute to the letters, MCIEB, lead me to conjecture that the unintelligible collocation of the twelve letters was intended for NEIOC . m cI . EbOR, or for E \int OR, as in the name of York on No. 15.

It is possible there may be some misreading on Ruding's part of the blundered name. The three letters wanted to complete my conjectural reading are M . C and B or F. This attempt to interpret one blundered legend may induce some one who has access to a large collection of Saxon coins to inquire how it happens that coins, not deficient in weight or standard of fineness, have the letters correctly formed but so arranged as to be unintelligible.

The mode of forming the letters on the dies of Eadward's and Æthelstan's coins was not by a single punch for each letter, but by the combination of separate punches: thus R is formed by combining I, a crescent, and a small triangle; S by placing I oblique, and a small

triangle at each end on opposite sides, and so with such elementary tools almost every letter is formed.

Massive silver Saxon bracelets are occasionally found associated with Saxon coins in Ireland, and the ornamental patterns on them are formed by combining the triangular indentations of a single tool.

A letter is occasionally omitted in the legends; the word REX usually follows the king's name, but the R is omitted on No. 1, and the X on No. 12. On No. 16 the letter F is not in the name of the mint, which on No. 15 is EFORVIC. I may also notice that on these two latter coins the M is like an inverted W, and that the final Roman C is used instead of the Saxon rectangular E, as on all the other coins described.

The inversion and rarely the reversion of one or more letters occurs on the same coin. On the reverse of No. 1 the initial N is inverted, or it may be said to be reversed, the M has the vertical lines connected above by a small crescent, and a superfluous one below. On the reverse of No. 2 the M is inverted in two places; the initial L of the moneyer's name on No. 8, and the final G of the legend on the obverse of No. 12, and also the T on the reverses of Nos. 15 and 16 are good examples of the same kind.

Here are sufficient illustrations from only seventeen coins in good preservation, and with most of the letters well formed, that literal blunders are frequent on Saxon coins of the tenth century.

AQUILLA SMITH.

April 18th, 1882.

VII.

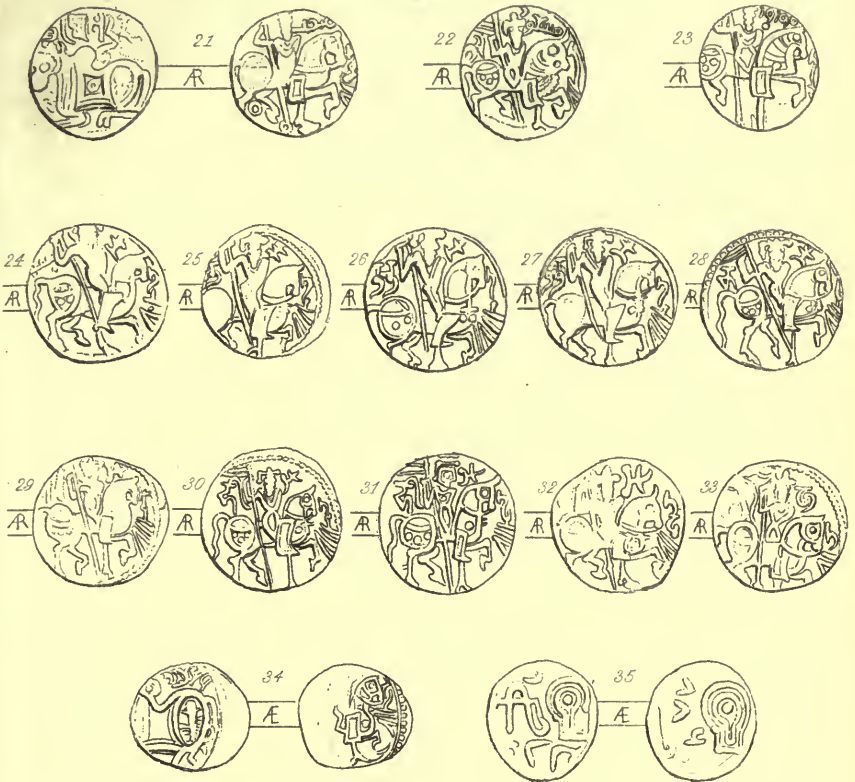
ON A HOARD OF EDWARD I. COINS DISCOVERED AT NORTHAMPTON, WITH REMARKS ON THE COINAGE OF EDWARD I., II., AND III.

IN the spring of 1873, a small earthenware jar, similar to those so frequently described in this Chronicle, was discovered by some workmen while repairing a canal at Northampton. The jar was said to have contained 197 pence of Edward I., and 2 Scotch pence of Alexander III. Soon after the discovery the coins came into the possession of a London dealer, who at once kindly placed them at my disposal. It was alleged by the person who in the first instance secured the coins, that, with the exception of a London penny and a penny of Robert de Hadelie, the find remained intact. The coins I inspected were the two Scotch pieces and 195 pence of Edward I. The latter with hardly an exception turned the scales at 21 grs., and the King's name in every instance was spelt EDW. Those pieces that presented any peculiarity in portrait or type remain in my possession, together with the two Scotch coins of Alexander III. When the hoard was first examined by me it consisted of:—

103 London pence,

reading on *Obv.* ✠ EDW R' ANGL' DNS hYB.

Sometimes the letter E formed E: the
A, K; the V, N.



	A	B	C	D	E	F	G	H	I	J	K	L	M	N
	ANCIENT INDIAN.	GUPTA.	VALABHI.	MODERN HINDI.	MAHMUD D. GHZNI.	EARLY KABUL.			LATER KABUL.			MODERN ARABIC & PERSIAN.		
1	—	—	∨	᳚	᳚				|			|		
2	≡	≡	≡	᳚	᳚	†	†	†	†			†		
3	≡	≡	≡	᳚					†			†		
4	†	†	†	᳚	᳚				†	†	†	†	᳚	᳚
5	†	†	᳚	᳚					†			᳚	᳚	᳚
6	†	᳚	᳚	᳚		†				†		†		
7	†	᳚	᳚	᳚		†	†	†				†		
8	†	᳚	᳚	᳚	᳚				†			†		
9	†	᳚		᳚	᳚	᳚	᳚	᳚				†		
0	᳚	᳚	᳚	᳚	᳚				†			᳚	᳚	

VALABHI SIGNS FOR HUNDREDS.
 $\text{᳚} = 100$, $\text{᳚} = 200$, $\text{᳚} = 300$, $\text{᳚} = 400$

Rev. CIVITAS LONDON.

Numerous slight variations in portrait too minute for description; a few coins are of similar good workmanship to the following type, which read $\text{EDW. R}\text{EX}$.

- 3 Do. of good work. *Obv.* $\text{EDW R}\text{EX ANGL' DNS hYB.}$
One specimen has a pellet after DNS, another has the N formed N , another the E formed E .

Rev. CIVITAS LONDON

C and N also formed C and N.

Weights 22, 22, and $22\frac{1}{4}$ grs.

- 8 Bristol *Obv.* $\text{EDW R' ANGL' DNS hYB.}$
principally very slight drapery.

Rev. VILLA BRISTOLLIE

A and E sometimes formed A and E .

- 59 Canterbury . . . *Obv.* $\text{EDW R' ANGL DNS hYB.}$
A few with a forked crown of coarser work than the others. On some examples the drapery on the King's bust is very slight; some weigh slightly over 22 grs., often the E and N formed E and N.

Rev. CIVITAS CANTOR.

C sometimes formed C, and N II.

- 5 Durham *Obv.* $\text{EDW R' ANGL' DNS hYB.}$
Drapery more or less distinct; the A sometimes without the cross stroke (A).
 N sometimes formed N.

Rev. CIVITAS DVR EME .

- 9 Lincoln *Obv.* $\text{EDW R' ANGL' DNS hYB.}$
More or less drapery.

Rev. CIVITAS LINCOL'.

Weight of lightest coin $21\frac{3}{4}$ grs., heaviest $22\frac{1}{4}$ grs. A sometimes without the cross stroke; C sometimes formed C.

- 8 York *Obv.* ΕΔW R' ANGL DNS ηΥΒ.
 Drapery hardly perceptible on some specimens; Ε and N also formed Ε and Ν.
Rev. CIVITAS ΕΒΟRΑCΙ.
 Lightest coin $21\frac{3}{4}$ grs., heaviest $22\frac{1}{4}$ grs.
- 2 Scotch coins of
 Alexander III. *Obv.* ΑLEXΑΝΔΕR DEΙ GR̄Α.
 Head crowned to spectator's left with
 sceptre.
Rev. REX SCOTORVM.
 A pierced star of six points in each angle
 of cross.

 197

The English coins, which are all of the royal mints, exhibited no distinctive marks, if we except the invariable mint-mark of the period—the cross patée. They are, together with the Scotch coins, as fresh as when issued from the mint. Most of them weigh fully 22 grs., a few exceed by a trifle that weight, and in the bulk the average weight per coin is as nearly as possible $21\frac{3}{4}$ grs. On some pieces the drapery on the King's neck¹ or shoulders is of the slightest description; so faint indeed is the outline of the drapery on a few specimens that the clothing appears more imaginary than real. On other varieties a plain well-defined band, varied in size and without being as usual folded in front, encircles the neck of the King. With some exceptions the coins of Edward I. that have come down to the present time, appear to have the mantle simply folded across the King's breast; occasionally it is fastened in front with an ornament of some kind. For instance, on a Canterbury penny in my cabinet, the fastening consists of three plain studs,

¹ On some specimens the slope of the shoulders of the King is not represented.

while sometimes, though not frequently, a rosette (Hawkins, No. 292), or a star (No. 295) is adopted, and on a London penny I possess, which, under the present system of classifying the coins of the three Edwards, would fall to Edward I., an annulet is used.

Had the Scotch coins of Alexander III. not been discovered with the English money, the Northampton find would, of itself, only have merited a passing notice in this Chronicle; but as the Scotch King reigned contemporaneously with Edward I. and died some years before him, it may safely be assumed that this hoard of freshly struck money was deposited in the earth during the reign of the first Edward, to whom, consequently, there can be no room for doubt, the coins belong.

The principal interest attached to this find is the fact that it does, in one important particular, strongly corroborate the almost universal opinion that pennies of heavy weight reading EDW belong to Edward I., while, at the same time, it offers a certain amount of negative evidence in support of the views entertained by Bartlett² and Hawkins,³ both of whom class pennies reading $\text{EDW}\pi$, $\text{EDW}\pi R$, and $\text{EDW}\pi R D$, to Edward II.

In 1779 Bartlett advanced the opinion that all coins upon which the letters EDW appear, belong to Edward I., that those reading $\text{EDW}\pi R D V S$ belong to Edward III., and that all the intermediate modes of spelling the King's name, such as $\text{EDW}\pi$, $\text{EDW}\pi R$, and $\text{EDW}\pi R D$, are of Edward II.'s time.

Bartlett arrived at this decision after studying the mode in which the King's name was spelt on the episcopal coins of Durham issued by Bishops Beck, Kellow, Beaumont,

² "Archæologia," vol. v. p. 335.

³ Hawkins's "Silver Coins of England," 2nd edit., p. 197.

and Hatfield, who held the see during the reigns of Edward I., II., and III., and whose family arms are seen upon the coins struck by their authority.

Bishop Beck held the see of Durham during the last twenty-four years of Edward I. and the first three of Edward II., and the coins he issued are marked with a cross moline. Bishop Kellow, Beck's successor, held the see for the following three years of Edward II., and the coins struck by his authority are known by having one limb of the cross on the reverse bent to the left in the form of a crozier. Bishop Beaumont next held the see of Durham for seventeen years, namely, the last eleven of Edward II. and the first six of Edward III., and his coins are marked with a lion rampant, and occasionally with one or more lis, his family arms. Bishop Hatfield, who held the see during the remainder of the reign of Edward III., distinguished his money by the same simple device as his predecessor Kellow, but with this distinction—one limb of the cross on the reverse is, with some exceptions, bent to the right instead of to the left.

Although it is impossible to agree with Bartlett's deductions in their entirety, yet there can be little doubt he struck the key-note to the true arrangement of the coins of the first three Edwards, when he accepted as a guide the number of letters of which the King's name was composed.

If coins reading ϵDW are found to be of the stipulated weight, *i.e.* about 22 grains to the penny, little doubt can be entertained that they, in all probability, belong to Edward I.; and on the other hand it is likewise almost equally probable that to Edward II. must, at least, be attributed those pieces of the same weight reading $\epsilon\text{DW}\pi$; very probably also that King may be entitled to certain

varieties of those coins reading $\text{ÆDW}\overline{\text{A}}\text{R}$, and I cannot absolutely deny with such evidence as I possess that a few pennies reading $\text{ÆDW}\overline{\text{A}}\text{RD}$ were not likewise of his time. Thus far, but no farther, can I follow in the footsteps of Bartlett and Hawkins, for when their test is applied to the coinage of Edward III. it crumbles to pieces at a touch, since in numerous instances there is abundant evidence to prove that this King did issue money of light weight reading ÆDW , $\text{ÆDW}\overline{\text{A}}$, $\text{ÆDW}\overline{\text{A}}\text{R}$, $\text{ÆDW}\overline{\text{A}}\text{RD}$, as well as $\text{ÆDW}\overline{\text{A}}\text{RDVS}$, after he reduced the standard weight of the English coinage in the eighteenth year of his reign.

The following were the authorised weights of money issued by the three Edwards, and the difference between the heaviest and the lightest coinage is too great to allow of any uncertainty.

WEIGHTS OF COINS ISSUED BY EDWARD I., II., AND III.

Edward I.	up to his 28th year.	. . . . .	$22\frac{1}{2}$	grs.	to the penny.
	from his 28th until his death		$22\frac{2}{3}$	"	"
Edward II.	all at the rate of		"	"	"
Edward III.	up to his 18th year		"	"	"
	from his 18th to his 20th year		$20\frac{1}{4}$	"	"
	" " 20th " 27th "		20	"	"
	" " 27th until his death		18	"	"

An attempt to separate two coinages by weight where the difference is only at the rate of a quarter or half a grain to the penny would be futile and misleading. Even to decide positively a difference between 20 and 22 grains the coins selected for the scales should be unclipped and in a fine state of preservation, and no argument whatever should be founded on the evidence of a single specimen. But it is altogether another question when a difference so great as that between 22 and 18 grains is

frequently discovered. Here we cannot be led astray ; and when we find that certain well-preserved pennies reading EDW , $\text{EDW}\pi$, and $\text{EDW}\pi\text{RD}$, while weighing less than 18 grains, present at the same time the ordinary portrait and well-known peculiar characteristics of Edward III.'s coinage, any reasonable doubt that this King did issue money reading in every published form from the three letters EDW to the full length title $\text{EDW}\pi\text{RDVS}$ can be entertained no longer.

My cabinet contains the following pennies of light weight of the type of the third Edward with the legend running :—

$\text{EDW R } \pi\text{NGL DNS } \eta\text{YB}$ *Rev.*— QIVITKS LONDOR.
3 varieties—weights $14\frac{1}{2}$, $14\frac{2}{3}$, and $14\frac{1}{3}$ grs.

$\text{EDW}\pi \text{ R } \circ \pi\text{RGL DNS } \circ \eta\text{YB}$ QIVITKS LONDOR.
2 varieties—weights 17 and $17\frac{1}{4}$ grs.

These coins, which have that peculiar bushy arrangement of the King's hair introduced by the third Edward, are from different dies, and are very rare in comparison with those common types of the same reading which are allowed by common consent to Edward I. or Edward II. The evidence the coins in question offer establishes, once for all, the fact that money of Edward III. exists of other readings than $\text{EDW}\pi\text{RD}$ and $\text{EDW}\pi\text{RDVS}$, and I will venture the opinion that if any coins extant reading $\text{EDW}\pi\text{RD}$ should hereafter be given to his predecessor Edward II., they will be comparatively very, very few in number. The evidence of the Calais penny which reads $\text{EDW}\pi\text{RD}$, and is known to have been coined during the reign of Edward III., should not be lost sight of by those who are interested in this inquiry. Again, if we turn our attention to the groats of Edward III., what is the result

of our examination? With the exception of two unpublished examples⁴ from different dies reading

✠ ΕΔΩΤΕ' × ΔΕΙ × Γ' × ΡΕΧ' × ΤΩΓΛ' × ΔΝΣ' × ΗΙΒ' × Τ' × ΠΟ'
(an annulet each side of crown).

✠ POSVI. ΔΕΥΩ. ΤΔΙΥΤΟΡΕΩ. ΩΕΥ—ΔΙΥΙΤΗΣ ΛΟΝΔΟΝ

they appear, all of them, so far as my experience extends, to read ΕΔΩΤΕΔ, in no instance ΕΔΩΤΕΔΥΣ; whereas, singular as it may appear, the very opposite is the case with the half-groats issued at the same period, they appear all to read ΕΔΩΤΕΔΥΣ, never ΕΔΩΤΕΔ.

It was in 1851 that Sainthill⁵ first called attention to certain pennies of light weight reading ΕΔΩ, with annulets on them, and with a "peculiar and spread bust," which, from their weight and type, he considered to belong to Edward III. Bergne,⁶ whose knowledge of the English coinage was very minute, confessed, in replying to Sainthill, that although "no great stress could be laid upon the weights" owing to the coins produced in evidence being "all considerably rubbed, worn, or clipped," yet "the occurrence of the annulets, and especially the weight of the coins, shook his reliance in Bartlett's and Hawkins's test." Cuff, however, who possessed a most extensive collection of English coins, and whose judgment carried great weight, did "not like" to disturb Hawkins's arrangement of the coins of the three Edwards, although the hesitating manner in which he expresses himself would seem to imply a somewhat reluctant rejection of Sainthill's suggestion. Cuff in his letter⁷ to Sainthill thus writes:—"I confess I do not like

⁴ In my possession.

⁵ "Num. Chron." vol. xiv. p. 20.

⁶ "Olla Podrida," vol. ii. p. 219.

⁷ "Olla Podrida," vol. ii. p. 217.

to disturb their present arrangement. The reasons you assign for removing them have considerable force, especially that of the legend divided with annulets, which I only know on pieces of the third Edward. The English Ω , too, is something more in your favour. The weight, upon which we usually build so much, in this case I think little of. Lastly, with regard to the portrait, I can only say that I prefer the definite and tangible circumstance of the different readings of the name to the skill and taste of the physiognomist."

In 1871 Mr. Arthur J. Evans resumed this inquiry by communicating a paper⁸ to this Society, entitled "On a hoard of coins found at Oxford, with some remarks on the coinage of the first three Edwards." In that paper the author, whose mind had not been biassed by a knowledge of Sainthill's article, nevertheless confirmed the suggestions of that writer. Mr. A. J. Evans had better material than Mr. Sainthill to work upon. He "distinguished some peculiar pence reading EDW , $\text{EDW}\pi$, and $\text{EDW}\pi \text{R}\text{EX}$, which from the style of their letters, the annulets in the legend, the broad face and bushy hair of the bust," he "referred rather to Edward III. than to either of his predecessors."

It must, indeed, frequently have been remarked by collectors who possess specimens of those light coins of the type referred to by Sainthill and Evans, that they look strangely out of place when arranged in a cabinet, not for type, not for weight, but wholly on account of the number of letters that compose the name of the King. By keeping these light coins of the type of Edward III. together, and arranging them in a cabinet before the well-known and plentiful issue of that King, one is forced to

⁸ "Num. Chron.," N.S. vol. xi. p. 264.

the conclusion that, once in that position, there they must remain. It seems, however, unfair to deny that the coins in question were very likely outside Bartlett's argument; probably they were unknown in his time, since as late as 1841, when the first edition of "The Silver Coins of England" appeared, Hawkins, who was a keen observer, had not detected them.

After "an accurate examination" of a great number of coins of the Edwards found at Tutbury in 1832, Hawkins was induced, with very few exceptions, to support Bartlett's views as regards the classification of the pence. The halfpence and farthings, however, he arranges after a method of his own, assigning, without much reason, many of those small pieces reading EDWARDVS both to Edward I. and Edward III. Now, supposing for the sake of argument that Hawkins is right in his idea that the halfpence and farthings obstinately refuse to submit themselves to the same simple system of arrangement which answers, as a rule, very well with the pence; how, and on what principle, are we to deal with those unruly little pieces? for I suppose it may be considered as most probable that the three Edwards, each of them, issued money of smaller denomination than the penny. To arrange the pence of Edward I., II., and III., on one system, and the halfpence and farthings on altogether another system, leaves on one's mind a vague sense of incompleteness—a suspicion that a further investigation would lead to a simpler and a more convincing result. If we are forced to acknowledge that each of the three Edwards issued halfpence and farthings, I see no way to a final and complete arrangement of the coins of those Kings, unless we cast aside altogether the uncertain views entertained by Hawkins.

I now beg to offer a list of some halfpence and farthings, which were issued during the reigns of Edward I., II., and III. The coins are in a fine state of preservation. I arrange them according to the number of letters that compose the name of the King.

HALFPENNIES.

LONDON.

ÆDW. R' ANGL' DNS hYB *Rev.*—CIVITVS LONDON.
Drapery on shoulders of King. Inner circle. Hawkins 296.
Weight 9 grs.

BRISTOL.

ÆDW. R' ANGL' DNS hYB *Rev.*—VILLÆ BRISTOLLIÆ
Drapery. Inner circle. Snelling, Pl. II. No. 2. Weight 8½ grs.

NEWCASTLE.

ÆDW. R' ANGL' DNS hYB *Rev.*—NOVICĀSTRI
Drapery. Inner circle. One pellet only in each quarter of reverse.
Hawkins 298.

BERWICK.

ÆDWÆ. R ANGL DNS hB VILLÆ BÆRÆVVCI
Drapery. Inner circle. Hawkins 306 reads differently.
Weight 10 grs.

ÆDWÆRDVS DÆI GR VILLÆ BÆR . . CI
Drapery. Inner circle. A bear's head in two quarters of reverse. Ruding, Sup. ii. I. 21 reads D.G.R. Hawkins mentions DÆI GRÆ. Weight 7½ grs.

LONDON.

ÆDWÆRDVS RÆX AN CIVITVS LONDON
Drapery. Weight 9¼ grs.

The following halfpence no doubt were coined in the reign of Edward III. They have the usual characteristics of his money:—

LONDON.

1. EDWARD^x REX^x ANGL CIVITAS LONDON
Unpublished reading EDWARD. Weight 9 grs.
2. EDWARDVS REX CIVITAS LONDON
Two varieties, $10\frac{1}{4}$ and 8 grs.
3. EDWARDVS : REX : AN CIVITAS LONDON
Hawkins 314, has not two pellets before and after REX. 8 grs.
4. Another with an annulet before EDWARDVS. The king's bust very small. 7 grs.
5. No annulet, king's bust large. $8\frac{1}{2}$ grs.
6. No annulet. A pellet each side of king's crown—one coin with another without an extra pellet in one quarter of the reverse. Weights $10\frac{1}{4}$ and $10\frac{1}{2}$ grs.
7. An annulet before and after REX and after LONDON.
 $10\frac{1}{4}$ grs.
8. Another similar, without annulet after LONDON. 8 grs.
9. EDWARDVS REX ANGL * CIVITAS LONDON *
Drapery. A star with six points after obverse and reverse legend.
10 grs.
10. EDWARDVS REX CIVITAS LONDON
This coin has the crown m.m. now for the first time published on a halfpenny of Edward I., II., or III. Weight $7\frac{1}{2}$ grs.
V instead of W in the king's name.

READING.

EDWARDVS REX AN VILLA READINGY

A scallop-shell in one quarter of the reverse. This coin differs from Hawkins 315 in having AN after REX.

FARTHINGS.

LONDON.

E. R ANGLIÆ Rev.—LONDONIENSIS

Drapery on the shoulders of the king. No inner circle.
Hawkins No. 301. Weight $4\frac{3}{4}$ grs.

BRISTOL.

Æ. R ANGLIÆ VILLÆ BRISTOLLIÆ

Drapery on shoulders of king. No inner circle. Weight $5\frac{1}{4}$ grs.

LINCOLN.

Æ. R ANGLIÆ CIVITAS LINCOL

Drapery. No inner circle. 5 grs.

LONDON.

1. ÆDVVTRDVS RÆX LONDONIÆNSIS

Hawkins 300. Inner circle. Drapery. $5\frac{1}{2}$ grs., and another very heavy $6\frac{3}{4}$ grs. Two V's stand for W.

2. Similar, but two pellets after RÆX. $5\frac{3}{4}$ grs., and another very heavy $7\frac{3}{4}$ grs.

3. The first N in London Roman, the second Old English. 5 grs.

4. N after RÆX. 5 grs. Both N's in LONDON Roman.

5. ÆDWTRDVS RÆX Both N's in LONDON Roman.
No drapery. $4\frac{1}{4}$, $4\frac{1}{3}$, and 5 grs. Different dies.

6. N after RÆX. 4 grs.

7. N and a star of six points after RÆX and star after CIVITAS.
Different bust to Ruding III. 27. Weight $4\frac{1}{2}$ grs.

YORK.

ÆDVVTRDVS. RÆX CIVITAS EBORACI.

Drapery on the king's shoulders. Inner circle. Weight $6\frac{1}{2}$ grs.
Two V's stand for W in the King's name.

This is the first authentic York farthing of Edward I., II., or III. that has been published. It is in very fine preservation. Withy and Ryall—pl. vi., n. 34—engraved a York farthing reading Æ R ANGLIÆ—CIVITAS EBORACI. Such a coin may exist; but as regards Withy and Ryall's work, I fully endorse the remarks made by Hawkins (1st edit., p. 4) that the plates are worthless for reference;

coins are represented that never existed, and forgeries are engraved as genuine pieces.

The unlooked-for opposition to a final arrangement of the money of the three Edwards, offered by the small coins of those Kings, is, however, not the only obstacle we have to contend with in bringing this inquiry to a satisfactory conclusion. Another difficulty almost as great confronts us. It is this:—The coinage of Edward III. during the first eighteen years of his reign was authorised to be of the same weight as that adopted by his predecessors Edward I. and II., viz. about 22 grs. to the penny; yet hardly anything is known at the present time of the operations of the mint during that period, or what have become of the coins of that issue. If it can be proved by documentary evidence that no money was coined during those first eighteen years of Edward III., well and good, and the path before us in this inquiry will be relieved of a great difficulty. But, on the other hand, if that evidence is not forthcoming, we cannot assume, as a matter of fact, that no coins were issued during that somewhat lengthened period, and to place one's finger on pieces of that particular issue is one of the most difficult points in this inquiry. It may be possible that some of the money now given to Edward I. or II. may belong to the first or heavy coinage of Edward III. If such should hereafter prove to be the case, I contend that among those coins will be halfpence and farthings reading $\text{ÆDW}^{\text{AR}}\text{RDVS}$.

Edward II. coined little money in comparison with the enormous quantity issued by his predecessor, and I am convinced that whether the first or heavy pence minted by Edward III. were many or few, they are, at the present time, only represented by a few very exceptional examples of much rarity.

I select a penny from my cabinet which I consider belongs to this first or heavy coinage of Edward III. It reads—

EDWAPR' REX ANGL DNS hYB CIVITVS LONDON

Type approaching the bushy-haired light money of Edward III.
Weight 21 grs.

An authentic heavy groat or half-groat of Edward III., struck before his 27th year, has not yet been discovered. In my collection is a York groat of that monarch, weighing as much as 85 grs.; nevertheless, I look upon the coin as one of those exceptional pieces from which no argument can safely be drawn. The coin is of the usual type of Edward III., and reads:—

Obv.—EDWAPRD'oD'oG'oR'EX'oANGL'o>°FRANCO'D'o hYB

Rev.—POSVLoD'EVLoAN'DIVTOR'EM'oR'EV — CIVITVS
EBORACI

As compared with the pence, the smaller coins of the Edwards are few in number. Farthings are much scarcer than halfpence, and finely preserved specimens of those little pieces are seldom met with, if we except those struck at London reading *Æ. R. ANGLIÆ.*

And as to the comparative rarity of the halfpence, I have observed that those pieces reading EDWAPRDVS are *by far* the most plentiful, the majority of them belonging to the light coinage of Edward III.—halfpence with the letters EDW are not so rare as those reading EDWAP, which closely resemble in type the pence of Edward II.; and in this paper is published for the first time a halfpenny of Edward I., II., or III., reading EDWAPRD.

An examination of the coins issued by the three Edwards shows that the pence of Edward I. vary considerably both in type and workmanship, and that many

successful attempts were made in the reign of that monarch to improve the coinage.

Coins of Edward II. are inferior in workmanship to those of his father, and they bear a very strong resemblance to each other. Edward II., like Henry V., after having once adopted a peculiar and particular type, strictly adhered to it, and apparently took no further interest in the operations of the mint.

Edward III., if not before, at any rate after his 27th year, introduced on his coinage an entirely new style of bust well known to every English numismatist, and easily recognised, as previously mentioned, by the full appearance of the King's face and the bushy arrangement of the hair. This type of coinage, first introduced by Edward III., was continued, with little or no alteration, by Richard II., and with but trifling modification by Henry IV.

J. FRED. NECK.

P.S.—A few years since an old manuscript entitled "A Continuation of the Dissertation of the Coins of this Nation from the Earliest down to the Present Time," by B. Mackerell, was exhibited at a meeting of this Society. The book was large and was illustrated by pen-and-ink sketches, the last coin represented being a farthing of Queen Anne, dated 1714, and probably that date was about the time the work was written. The following extracts respecting the coinages of Edward I., II., and III. I copied, thinking the remarks might be interesting to some members of this Society.

EDWARD I. (Page 111.)

"It is difficult to distinguish the money of this king from Edward II. because the face, style, weight, and reverse are alike. But a learned antiquary, the Archbishop of York,

ascribes those with the three first letters EDW. to Edward the First because of the plenty thereof; for Edward the First is known to have coined much more money than his son, and also from the mintage of Dublin, set up by this Edward which has always EDW., from whence it is to be concluded that all belong to him that have the inscription EDW . R . ANGL . DNS . HYB."

EDWARD II. (Page 112.)

"Dr. Nicholson says in p. 255 that he cannot assuredly affirm that this king did ever coin any money, he and his favourites minding more the method of exhausting."

"My best guide has observed that Edward the First set up four mints in Dublin and coined a great deal of money in that kingdom, and that old Edward pennies that are Irish have only the three first letters of his name. He likewise takes notice that most of the English have the like; and, therefore (considering that this king coined far more money than his son), he thinks it reasonable to conclude that all such pennies as have E.D.W. belong to the first of that name; whereas those with EDWA, EDWAR, or EDWARD are the second's, and this with EDWARDVS at length were coined by Edward the Third or Fourth."

J. F. N.





VIII.

THE CROSS POMMÉE ON AN IRISH HALFPENNY OF KING JOHN.

At the February meeting of the Society I exhibited a tinfoil impression of the extremely rare Waterford halfpenny of John, "Lord of Ireland," now in the collection of the Royal Irish Academy in Dublin, which differs from others by its bearing the cross pommée as a mint-mark. The woodcut at the head of this paper is from a drawing of this coin by Dr. Aquilla Smith. A resemblance between these Irish halfpennies of John, which are believed to have been struck by him in the lifetime of his father, and certain of the earliest pennies of the English "short cross" series, which are assigned to Henry II. or Richard his son, has beforetime been the subject of remark; a resemblance, first of all, general, as regards the obverse of both one coin and the other, and secondly, particular, as regards the character of certain letters in the legend. This was made good use of, twenty years ago, by those who then occupied themselves in trying to arrange the whole series of the "short cross" type. And

now, by the reappearance of this Waterford halfpenny, with its peculiar mark, a further resemblance is to be observed, which hitherto has been unobserved by all who have written on this question.

It is well known to them, as to all who have mastered a knowledge of the sequences of the "short cross" coins, that two classes among them, though bearing the name Henry, have been assigned to the reign of John; of these one class has for mint mark the cross pommée, and not patée. Unreasonable as this assignment at first sight might appear, its reasonableness has never been disputed; and now in this Waterford halfpenny, with its cross of the same kind as that which marks them, we have additional evidence to confirm it, if evidence in addition were required,—because it connects the use of that form of cross with coins which actually bear John's name. Since the February meeting I have received from Dr. Aquilla Smith four more tinfoil impressions which appear to me worth notice in connection with this subject. They are impressions of several Irish coins of a date earlier than the twelfth century. Bearing the cross pommée, they illustrate the use of it, long before the "short cross" type existed; may they not be held to indicate the quarter from which this form of cross was derived, when in after times it came to be used as a mark upon John's English money? His being "Lord of Ireland" led to its use, first, on the Irish money (was it not a mark on the money of Ireland's ancient kings?), and secondly, on English money, because it served to distinguish that, as being John's coinage, which was not superscribed with his name.

Impression No. 1 is of a coin of Æthelred II. (979—1013), with the cross pommée *behind the neck*; the second

is like it, only with the legend SIHTRC RE+DYFLM; this coin is attributed to Sihtric, King of Dublin, contemporary of Æthelred. The third is an unappropriated Hiberno-Danish coin, with the cross *pommée on the neck*. No. 4 is very thin, very rude, and the strokes in lieu of legend are unintelligible; this type represents a head surmounted by the cross *pommée*.

These descriptions are almost in Dr. Aquilla Smith's own words. He believes No. 4 to have been struck in Ireland, in the interval between the expulsion of the Danes after the battle of Clontarf, near Dublin (1014), and the English invasion of Henry II. in 1172.

ASSHETON POWNALL.

IX.

REMARKS ON CERTAIN DATES OCCURRING ON THE COINS OF THE HINDU KINGS OF KÁBUL, EX- PRESSED IN THE GUPTA ERA AND IN ARABIC (OR QUASI-ARABIC) NUMERALS.

SHORTLY after the appearance of Mr. Edward Thomas's Paper on the "Coins of the Hindu Kings of Kábul," which was published in 1848, that gentleman communicated to me his belief that certain signs which occur before the head of the horseman, found on one type of these coins, represented dates. More recently he informed me that on some of the *later* coins, he believed that he could discover among these signs, a degraded and contracted form of the word "Gupta."

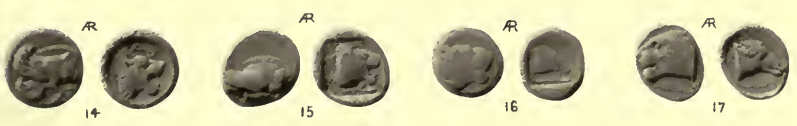
I have only recently been able to go through my own collection of this class of coins, and to compare it with the extensive series in the British Museum and in the India Office. I have also had the advantage of access to the collections of Mr. C. J. Rodgers and Mr. A. Grant; and it may be said at once, that the results obtained seem not only to confirm Mr. Thomas's conjectures, but to go considerably beyond them.

It is proposed, therefore, in the following pages to deal with these results; and, in order to place the matter clearly before the reader, it is intended to adopt the following method:—First, to relate concisely the facts themselves—

[III]



[II or III]



both those now discovered, and those already known—which bear upon the subject discussed. Secondly, to state simply the conclusions drawn; and, in the third place, to set out the evidence on which the new facts rest; and, finally, to give the reasoning by which the conclusions drawn are supported.

The facts then are briefly these:—

I. There exist (as read by me) dates on certain silver coins of the bull-and-horseman type, and the coins on which these dates occur all bear the name of “Syalapati,” whom Mr. Thomas has shown to have been the earliest king of the *Brahminical* line of Kábul kings. In some cases these dates are followed by the word “Gupta” (possibly the full legend is “Guptasya (kál),” for another letter appears on some coins after “Gupta”). All these coins which bear either dates with the full word “Gupta,” or nearly contemporary dates, are assumed to have been, both from their dates and their execution, struck by Syalapati *himself*.

II. On certain other coins of the same general type, but of distinctly conventional execution, and which bear the names of Syalapati and Samanta (in rare cases the names of Bhíma Deva and Khvadavayaka) indiscriminately *other* dates occur, which if I read them correctly, belong to a period about a century later than the dates on the earlier coins. This class of coins it is proposed to consider posthumous, and as belonging to the latest and subordinate kings of the dynasty, to whom the privilege of coining in their own names had been forbidden (as would usually be the case) by their Mahomedan conquerors and superior rulers.

III. In the British Museum is a coin which bears on one side the conventional lion or leopard of the early or

“Türk” type,¹ that found on “Varka Deva’s” coins, but on the other is a peacock of the form found on the small silver coins of the Gupta dynasty. Above the lion is a Hindi legend, which is either “Şri Kamara” or “Kamra” (Deva?), possibly it may stand for “Kúmára;” but in any case the name seems easily identifiable, as the original of “Kamlua,” the name given in the “Jamiul-Hikayát” to the “King of India,” there described as the opponent of Amrú Lais, who flourished between 878 and 900 A.D.²

IV. In my own collection is found the name of another king, “Padama” or “Padma,”³ and since the type of his (copper) coin is precisely similar to that of Varka Deva, the last king of the Türk dynasty, there need be little hesitation in assigning to this king a place before “Varka” and after “Kamara.”

V. There is further still in my collection, by the generosity of Mr. C. J. Rodgers, a copper coin of Samanta Déva—imitated from those of “Varka,” as certain of his coins are already known to be, and which bears above the lion an Arabic legend, which it is proposed to read as “Al Mutaki” (or Al Muttaki) B’illah, being the name of the Khalif who reigned from 940 to 944 A.D. On the other side is the name of Samanta himself. I may add that I possess another coin of Samanta of this type which bears another and totally different Arabic legend, unfor-

¹ The reading of “Varka Deva” is adopted, in conformity with Mr. Thomas’s reading, but I believe that gentleman, and General Cunningham also, now prefer to read “Vakka.” “Vanka” is closer the rendering of Mahomedan writers, and each reading may be supported by the coins.

² Elliot, “Mahomedan Historians of India,” vol. ii. p. 423.

³ The second letter of the name is badly formed, and might be possibly a “k,” but I think it should be “d.”

tunately the coin is in poor preservation, and the legend cannot be fully deciphered. It does not, however, seem to contain a name, and so does not bear directly on the present inquiry.

These are the chief new facts, on which, in addition to those already made known by Mr. Thomas [especially the existence of the Khalif Al-Muktadir's name on a coin of the bull-and-horseman type, and Albirúni's account of the fall of the "Türk," and rise of the Brahminical dynasty] the conclusions about to be stated, mainly rest.

These conclusions are as follows :—

1. It is proposed to read the dates as being written in numerals of a form intermediate between those of the mediæval Indian mints and the modern Arabic forms, and as graduating into the latter.

2. On this hypothesis the dates on the earlier coins—viz., those attributed to Syalapati himself—would read as,⁴ '98, and perhaps '99, Gupta (Sya ?) ; and as 707 and 727 (Gupta). Of course, if correct, these readings would give Syalapati a reign of at least twenty-nine years, which is not *a priori* very improbable.

3. On the same hypothesis, the dates on the later series of coins are read as 802 "Gu," 812 "Gu," 813, 814, 815, and 817, respectively. A still later date of 886 occurs also on a single (copper) coin of a degraded type.

4. The identification of "Kamara" with Kamlua makes it necessary to place part at least of the reign of that king, and the whole of the reign of "Padma," and the whole of the first reign of Varka Deva between 878 A.D., the earliest year of Amrú Lais, and the date

⁴ Such a reading is justified by the Hindi dates for (6)97, (6)98, (6)99, which occur on coins of a Ala-ud-din Khilji of Dehli.

of Syalapati's accession to the throne. The first reign of "Varka" must have been one of some duration, for the accounts given by Mahomedan writers describe him as going through varied phases of behaviour before he was finally dethroned.

5. The reading of the name of "Al Mutaki b'illah" on one coin of Samanta makes it clear that Samanta was ruling at least as early as 944 A.D., the latest year of that Khalif; and this makes it certain also that Syalapati's reign must have terminated at a distinctly earlier date, for Varka's second reign interposed between those of Syalapati and Samanta. Now though Varka's second reign can hardly have been a *very* long one—for if Syalapati ruled for some thirty years or more, Varka must have been at a fairly advanced age when he regained his throne on Syalapati's death; still it must have been of some sensible duration, inasmuch as the type of Varka's coinage, which had pretty certainly been entirely disused during the time Syalapati was on the throne, had regained sufficient acceptance among the people to induce Samanta to imitate it in his copper currency, while taking Syalapati's type for his silver coinage.

6. From the above considerations it is clear that Syalapati was contemporary at least for some time with the Khalif, "Al Muktedir b'illah," and that he was probably the king who struck the medal (published by Mr. Thomas) in his honour, of the bull-and-horseman type. Al Muktedir reigned from 907-8 to 932 A.D.

7. Dr. Bühler⁵ has pointed out that at Vallabhi, when visited by the Chinese traveller, Hwen Thsang, in 641 A.D., a king was then reigning, whose appellation has

⁵ "Indian Antiquary," vol. vii. p. 80.

been already rendered by earlier modern interpreters into a name closely resembling Dhruvabháta, as its Sanskrit equivalent; and a recently discovered inscription of Siladitya VI., of Gújrat, dated in 447, gives to that king the title of "Dhruvabháta." No other king of Valabhi, so far as their known inscriptions show (and many grants of nearly all his predecessors are now known), adopted any similar title. His immediate predecessor, Siladity V., was reigning in 441. For reasons to be explained presently the era of these dates is taken as the Gupta era: if so, this would limit the latest possible date of the commencement of the Gupta era to 200 A.D.

8. Dr. Beal in "J. R. A. S.," vol. xiii. N.S. p. 571, gives a quotation from a Chinese author, who, writing slightly later than 692 A.D., speaks of a king of India called "Śri Gupta," who reigned "about five hundred years ago." The earliest king of the Gupta dynasty was "Śri Gupta."

9. For these reasons it is proposed to place the extreme latest limit of the commencement of the Gupta era in 200 A.D.

10. On the other hand, taking 698 Gupta as the earliest date of Syalapati known, this must, as has been shown, fall much later than 878 A.D.; and therefore 180 A.D. would be certainly too early a date for the commencement of the Gupta era.

11. Samanta Deva reigned probably for a long period. His name occurs perhaps more frequently than Syalapati's on the Kábul coins of later date; and it is the only one associated with the bull-and-horseman type, by the kings of later Hindu dynasties, and by the Mahomedans who imitated *their* coinage.

12. The long duration of the reigns of Syalapati and of

Samanta and the uncertain length of Varka Deva's second and intervening reign, make it difficult to fix their period more exactly from the above data, and from it to settle positively the initial date of the Gupta era. If, however, a date about half-way between the extreme limits be taken—viz. 189—which, as will be seen presently, suits fairly well with other known facts, then it would give the following results, which are not improbably correct, at least approximately.

	A.D.
I. Kamara or Kamlua, contemporary with Amru Lais	}
II. Padama or Pakma	
III. Varka Deva's first reign	
IV. Syalapati	878 to 887
V. Varka Deva, second reign, say ten years	887 to 916
VI. Samanta Deva	916 to 926
and at least until	circa 926 940

13. The peculiar character of the numerals used on the coins shows, it will be affirmed, that the Arabic numerals were not only derived from India (as is already known), but also *through the medium of Hindus of the Kábul*.

The above conclusions have in some cases been put in an argumentative form, but this has been done in order to make their connection clear. It will now be necessary to go back to the evidence of the facts alleged, and to explain more fully the arguments by which the conclusions stated have been derived from these facts, and, finally, to consider the objections to which these conclusions may seem open, and which arise from other data or presumed data.

In the first place, then, reference must be made to the accompanying plates of coins, and it will be convenient to deal first with the group which bear Arabic inscriptions.

The coin bearing the name of Al Muktadir-billah needs no further notice here, as it has been already dwelt upon by Mr. Thomas in his original paper. The coin on which the name of Al Mutaki is read is shown in Pl. I., as figured 15. For the reading of the first three letters as "alif," "lám," and "mím," respectively, there is ample authority; and indeed the same may be said of the final "yé;" the penultimate letter may well be "Káf" ۞ though it might also stand for either "mím," or "fé." The real difficulty of the reading lies in the "t," which is only represented by a straight line between the "m," and the antepenultimate letter, instead of by a line with a slight upward projection; but the letters, which are evidently Arabic, can hardly form any other probable word, and the error may be that of a foreign die-cutter, unaccustomed to Arabic writing. There is a group of four dots arranged in a lozenge over the latter part of the legend, which may be intended as a fanciful arrangement of diacritical points, though the omission of these was certainly not unusual at the period when the coin must have been struck; or it may be a mere ornament, for such groups of dots occur on other coins of the same type. If, however, they are taken as diacritical marks, these dots can only be divided, so as to make sense, by taking them in groups of two dots each, which would give the reading "Al Mutaki."

⁶ The other coins of Syalapati with Arabic inscriptions, though some are well preserved—and they are fairly numerous—have not been fully deciphered: the only word clearly legible is the name of "Mahomed." In all pro-

⁶ There are four specimens in the B.M. Collection, two in my own, and one in that of Mr. Rodgers; two also in the E.I. Office Collection. Two of the former and that of Mr. Rodgers are engraved as figures 11, 12, and 13.

bability the legend will be found merely to contain some pious Mahomedan formula, and the numismatic value of these coins, as well as of all of those with other unread Arabic inscriptions, consists mainly in the evidence which they afford of the strength of Mahomedan domination in Kábul during the reign of Syalapati, and of his immediate successors; evidence which is wholly in accord with the facts, stated at more or less length, by the whole series of Mahomedan writers, who deal with the period under review.⁷

⁷ These facts will be found detailed at length in the note by Sir Henry Elliot, in vol. ii. pp. 403 to 437 of the "Mahomedan Historians of India," and by Mr. Edward Thomas in his papers on the Hindu kings of Kábul, already quoted, and on the coins of the kings of Ghazni, J.R.A.S., vol. ix. O.S. Briefly to summarize the leading facts, so far as they affect the present question, it may be said that attacks by the Mahomedans upon the Hindus of Kábul are recorded as early as the year 33 A.H., and they were repeated with varying success till 107 A.H.; after which the country of Kábul is described as being a permanent dependency of the Mahomedans. In the middle of the third century A.H. Yakúb-bin-Lais took the city of Kábul, and about a quarter of a century later Amrú Lais, his son, was, as has been seen, again in hostile contact with the Kábul king; and just about the time when it is proposed to place Syalapati's rule, the fortress of the city of Kábul (possibly the Bala Hissár of to-day) was, according to Istakhri, held by a Moslem garrison. A little later Ibn Haukal gives a similar account, and adds that it was the Moslem outpost on the frontier of India, and that nevertheless the Hindu sovereigns of Kábul were not considered as lawfully instituted, unless instituted in Kábul itself, a fact which implies at any rate some kind of subjection to the Mahomedan power. In short, between the beginning and the middle of the tenth century A.D.,—just the period assigned to Syalapati and his immediate successors—the country was in the military possession and under the supremacy of the Mahomedans. Twenty-five years later this modified tenure of the country was apparently converted into entire administrative possession, for the kingdom of Jaipál, who was reigning at least as early as 975 A.D., is described as extending no further to the westward than Lamghán, and he was, doubtless, soon pushed further still to the south-east.

As regards the coins of Kamara and Padama, Figs. 1 and 2, Pl. I., no more need be said. The Hinduized form of these names, if correctly read, need not excite astonishment, though borne by the so-called "Türk" race (if indeed the Katórs, or Katormáns, were Túrks), for the third king of the Kanishka Indo-Scythian dynasty was "Vásu Déva."

It is now necessary to explain the readings of the dated coins, and the word "Gupta" first claims attention. The most perfect example will be found on the coin, Fig. 3, Pl. I.; but even on this coin the syllable which I read as "Gu" is partially effaced, as are all the numerals preceding it. The full reading given as Fig. 6, Pl. I., is compiled from the three coins, Figs. 3, 4, and 5, Pl. I., and it will be perhaps accepted as a fair rendering of the usual form of the word; and though the letters are slightly more archaic than those of the rest of the legend on some of Syalapati's coins, still a few of these legends retain an early form of "y," and are otherwise pretty closely in accord with the form in which "Gupta" is given, and which was perhaps to some extent stereotyped.⁸

The general type of these coins likewise demands attention. If the figure of the horse on these coins be compared with that on the coins which have been described as "posthumous," as, for example, the figures 25 to 33, Pl. II., it will probably be admitted that while the more or less rude outlines on the latter give only a general conception of a horse, the figure on the early dated coin gives a fairly faithful representation of the short thick "punchy"

⁶ Since this was written Mr. Thomas has kindly permitted me to see his notes and facsimiles. The last letter seems from these to be probably "sa" or "sya," which would make the whole word "Guptasya" (kál).

horse, to this day indigenous in Kábul, and bears every mark of having been taken from a living original. The same is, in a less degree, true of the figure of the bull, for although as it was doubtless a representation of the sacred bull Nandi, and was therefore from the first more or less formalized, still on a few of the early coins of Syalapati it retains some approach to nature, and, in one or two instances, the coins even show the bull as in the act of rising.

As regards the numerals, the readings proposed will be seen at a glance on reference to the table at the end of Plate II. Those of Syalapati's earlier coins will be found in columns 6, 7, and 8, which give the variants found on that series of coins; while columns 9, 10, and 11 give most of those found on the later coins, but do not show all the more corrupted forms of the Figure 4, which are numerous. In the earlier columns of the table will be found a series of ancient Indian numerals, viz., the earliest, the Gupta, and the later Valabhi forms, together with some of those on the bilingual coins (Sanskrit and Arabic) of Mahmúd of Ghazni, and the modern Hindi; the concluding columns give the modern Arabic and Persian forms; while, outside the table, will be found examples of the modes of writing 100, 200, 300, 400, according to the Valabhi system, which does not, however, essentially differ from the earlier modes of expressing the same numbers.

To this table it will only be necessary to add a few words of explanation. It has been conclusively shown by M. de Woepeke, in the "Journal Asiatique," vol. i., Series 6, for 1863, that the Arabs received their numerals from India, and the early writers indeed (Albirúni, for example) always designate what we now call the "Arabic" as "Indian" numerals. The object of the remarks it is

now proposed to offer is to indicate the gradations by which the ancient Indian numerals passed into the modern Arabic forms, as will be shown by the table given, and to attempt an explanation of the more important changes made in these forms which it is believed can be traced to the action of the Hindus of Kábul; through whom, therefore, it may without danger be assumed that the knowledge of these ciphers was first brought from India to the Arabs, and this from the geographical position and political relations of the two nations is *à priori* probable.⁹

Passing over the earlier units for the present, which will be more conveniently dealt with in connection with the later coins, it may be observed that no early example of the cipher for "6," can be positively adduced from the

⁹ M. de Woepcke shows that up to 705 A.D., and possibly for some seventy years later, the Arabs certainly possessed no numerals of their own, and he quotes two passages from Arabic writers which record explicitly the reception of a system of numeration from India, through the medium of a book or books presented to the reigning Khalifs, 773 A.D., by envoys from India. From the stress laid on the beautiful simplicity of this system, it may perhaps be not unfairly inferred that the system recorded was the modern system, for the system of notation by the Greek letters is not very greatly inferior to the earlier Indian method. The new system was certainly known and employed in India by that time, though the older one remained in use for a much later period in Nipál and other remote places. It is not necessary in this place to deal with M. de Woepcke's arguments tending to assign a much earlier date to the simplification of the system of notation. These are mainly derived from the use of the value of position; but this was only one element of the new discovery, and probably the earliest part in point of time. See the observations of M. Léon Rodet at the close of the "avant-propos" to his paper on the notation of Aryabháta, p. 443, vol. xvi. Series 7, "Journal Asiatique" for 1880. I hope, in another place, shortly to show that the final simplification was hardly effected much before the close of the seventh century A.D., and to indicate at least with some probability the method in which it was brought about.

Kábul series itself. It first occurred to me to read the sign just above the horse's head on coins, Figs. 4 and 5, Pl. I., as "6," and it may possibly be intended to fulfil that function; still it so closely resembles the left arm of the horseman, as shown on other coins of this series, that it would not be safe to take it as a numeral. As will be seen, however, the figure for "6" is found on a coin of not greatly later date, in its ultimate Arabic form, and that form was clearly derivable from the oldest Indian type of the numeral, by simply writing it cursively so as to obliterate the central loop;¹⁰ just as the European "6" is derived from the same original, and is obtained merely by the omission of the final down stroke.

The early figures for "7," indeed all the forms of "7" on the Kábul coins, are plainly also cursive forms of the ancient Indian equivalent: and indeed not unlike its shape in modern Hindi, while one form is very closely allied to the European shape.

The "8" of the earliest series of the Kábul coins is hardly a variation from the form used in the ancient Gupta inscriptions, and differs almost in a less degree from that employed in modern Hindi; the mode in which these two ciphers for 7 and 8 respectively passed into their modern Arabic shapes will be discussed presently.

The figure for "9," as it occurs on the earlier Kábul coins, is closely allied to the form used in modern Hindi and to that in use on the coins of Mahmúd of Ghazni, and is altogether different from that used in modern Arabic. The latter is in close accordance with the European form, and clearly also borrowed from an Indian original, and in

¹⁰ It occurs nearly in this form in the inscription from Saman-garh, in West India, dated in 755 A.D. Cf. *Indian Antiquary* for 1882, pp. 110-11.

particular follows very closely the model of that numeral used in the later Valabhi inscriptions.

The precise genealogy of the modern *Hindi* form of "9" is not very certain. Mr. Thomas believes it to be a differentiation of the cipher for "8," by an addition at the top, but the point may be left open for the present.

Then remains the all-important cipher for "0," which is simply a small circle, and is only a slight modification of the most ancient form of the oldest Indian "ten." It will be attempted to show (in a separate paper) in the *Journal of the R. Asiatic Society* that the invention of the "zero" originally grew out of the use of the Indian sign for "ten" to fill up the "place vide" on the "Arcus Pythagoreus," but it may have taken its ultimate shape from that of the sexagesimal zero of Ptolemy.

If this interpretation be accepted, then the readings on the early coins (of Syalapati) will be as follows:—Fig. 4, Pl. I. will read, 98 Gupta (or Gupta Kál); Fig. 5, Pl. I. will read, 99 "Gupta," while on the coins figured as Nos. 7 and 8, Pl. I., the figures, *read the reverse way*, will make 707 and 727. I do not propose here to examine the question as to the reversed position of these figures, which will be dealt with in connection with the dates on the later series of coins; but it may be now said in conclusion, that on the data given above rests the main part of the case which it is the purpose of this paper to put forward. If the reading of the word "Gupta" on these coins, and the interpretation of the dates on them (for if the signs are accepted as numerals, they can, taken with the word "Gupta," be nothing but dates), and if the assignment of the coin of "Kamara," and the reading of the name of Al Mutaki b'illah, be all accepted, the initial date of the Gupta era can hardly be earlier than 188, or later than

214 A.D., and the additional deductions from the inscriptions of the two last Siladityas of Gújerat would further limit the latest date to 200 A.D.

The figures on the more recent coins must be now considered; and taking Pl. II., Figures 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, in connection with the table given on Pl. II., columns 9, 10, 11, it will be seen that I read them respectively as 802 "Gu," 812 "Gu," 813 (Gu?). 814, 815, and 817 respectively.

The reading of the earlier numerals, 1, 2, 3, 4, requires, in the first place, to be explained. It will be seen that the first is represented, as in the modern Arabic, by a simple upright stroke; "2" is the same upright stroke differentiated by a single side stroke to the right; "3," the same, differentiated by two side strokes, the second being *superimposed* on the first side stroke. It will be seen that these two last are almost identical with the Arabic ρ and μ , which are indeed but the same ciphers written more cursorily. On the other hand, they differ entirely from the modern Hindi, and from the European forms, and do not in any way resemble the ancient Indian forms for 2 and 3, from which the last named were evidently derived, by simply writing without raising the pen from the paper, and joining all the strokes.

The following explanation of the process by which the Kábul and Arabic forms were derived may¹¹ be offered as,

¹¹ Perhaps, in order to match the stiffer and more upright forms of the Indian alphabet as eventually introduced into Kábul. It seems more probable, however, that the fundamental idea of this system was derived from the upright stroke which stood for "one" in the Bactrian system of numeration which certainly prevailed in Kábul before the introduction of Indian notation. The period of the new invention is more doubtful. The Bactrian alphabet and notation appear to have survived

at least, not improbable:—It seems to have been decided to obtain a set of distinct signs to supersede the groups of simple strokes before in use; and, to this end, the mode of differentiation which had formerly been used with the now discarded symbols for 100 and 1,000, was applied to the simple upright stroke used for “1”; with this difference only, that for convenience of cursive writing the additional stroke in the case of the “3” was superimposed *on* the first, instead of being separately placed below it, as in the model from which it was derived.

That this was really the origin of these forms will become almost certain if Fig. 29, Pl. II., and the “4” in column 9 of the table of Pl. II. be examined. It will be seen from these that the figure for “4” was clearly obtained by superadding to the figure for 3 the old Indian cipher for 4, just as that cipher was tied to the cipher for 100 to make 400. As has been said above, the Valabhi modes of writing 100, 200, 300, and 400 are shown to the right, outside the table on Pl. II.

The cipher given for five, “5,” is, it must be said, derived only from a single coin, but it is very clear on that example, and can hardly stand for anything else. Moreover, it is easily convertible, by joining the two ends with a back stroke, into the modern Arabic form shown in col. 14 of the table in Pl. II. It seems to be a cursive mode of writing the Valabhi cipher for five. The upper

during the Indo-Scythian rule—say, till nearly 200 A.D. On the other hand, Sassanian coins of the sixth century exhibit Sanskrit letters which must have been brought *through* Kábul from India. Anyway this very artificial contrivance must have preceded the simplification of the Indian system, for it would hardly have been adopted when the convenient forms of the later Indian symbols had become known, and these were certainly used at a very early date.

part (as sometimes the case in Valabhi inscriptions) being exaggerated and the lower part slightly contracted.

The figure for "6" is shown in its modern Arabic shape, in which it will be found on Fig. 35, Pl. II. This coin bears unmistakably the date $\Lambda\Lambda\mathcal{Y}$, and is, it will be seen, a rude corruption of the bull-and-horseman type. It has on one side a scarcely recognizable figure of the bull; while the hind quarters of the horse, in their most conventional shape, are even less easily perceived on the other.

This last coin is of far too late a type to fit the date 886, either in the Sáka or Vikramáditya era, while it is of too early a type to fit 886 A.H., by which date the bull-and-horseman type had been practically abandoned even in the Kángra Valley, where it lingered longest. It seems, therefore, only to suit the Gupta date, which if taken hypothetically as beginning in 189 A.D. would bring the coin to 1075 A.D., and this would be in the time of Ibrahím of Ghazni; in that case the coin may be taken to be probably the production of a petty Hindu rebel, claiming, perhaps, descent from the ancient dynasty, in some remote part of the country.

It will be seen that it is proposed to read as the equivalent of "8" on these later coins a very different figure from that similarly read as 8 on the earlier coins, and whereas that resembled closely the old Hindi form of 8, this is the exact Arabic form of the same numeral.

To explain this it will be necessary to refer to the figure for 7 in column 8 of the table, which, it will be seen, is the same as one of those which occurs in the earlier coins, and it is found (in one coin only, however, Fig. 33, Pl. II.) in the later series of coins. It will be obvious that this figure closely assimilates to that of the earlier 8, *turned the opposite way*; and both these forms easily lent them-

selves to a cursive mode of writing them by two straight lines converging at an angle (as will indeed be seen from the plates,¹² the "7" is sometimes actually so written¹² on the earlier coins). The distinction between them would then be maintained only by writing the 8 in opposite direction to the 7, viz., with the angle turned upwards; but at the period when even the latest of these coins were struck the older form of 7 still apparently survived; perhaps, in this instance, by accident.

Of the other coins figured on Pl. II., Fig. 34 is the coin of a Kangra prince, probably of the beginning of the eighth or end of the seventh century A.H.;¹³ certainly not later—possibly earlier. This coin with those of Khvadavayaka, Pl. I., Figs. 17 and 18; Bhíma Deva, Figs. 19 and 20; and Mahomed, Masaud, and Modúd of Ghazni, Pl. II. Figs. 21, 22, and 23, are given for a reason which I now proceed to state.

To Mr. Thomas I am indebted for the hints which first suggested the present inquiry; and as the result at which I have arrived differs from that which he has obtained from the same data, it is right that I should state as clearly as I can his objections to the explanation proposed by me, and the grounds on which I venture to differ from him.

As to the bare fact that the syllable "Ga" for "Gupta" is found on the later coins, I understand Mr. Thomas to concur with me; though he would take the sign, which at best is a gross corruption, as reading the opposite way to

¹² See Fig. 9, Plate I.

¹³ This coin is anonymous. The coins of "Rúp Chand," which are the earliest yet found with a name, are of a somewhat later character, and all the still later coins bear some name. Rúp Chand was contemporary with Firóz Toghlak of Delhi. A coin in Mr. Rodgers's collection, very closely resembling the coin figured, *seems* to bear the name of Altumsh.

that suggested by me, and I understand him to read all the figures in the same direction—at any rate, all those on the later groups of coins—*i.e.*, as running from the horse's head towards its feet, with the heads of the figures towards the margin of the coin, and as representing in shapes more or less corrupt one uniform date, *viz.*, 617, which he considers to be the initial date, according to the Gupta era, of Samanta's dynasty; and accepting 319 A.D., according to Albirúni's statement, as the actual date of the Gupta era, would thus place Samanta's accession in 936 A.D. One main objection to my reading held by Mr. Thomas, besides the weight of Albirúni's testimony, consists in the fact that the numerals, read as I propose to do, would run in a direction different from the legend on the other side of the coins, and from the monograms on the same side; while by his reading a uniform direction is maintained for all.¹⁴

Before proceeding to discuss these arguments I must make one important admission, which may at first sight seem to support Mr. Thomas's position; and in order to illustrate which I have introduced certain of the coins figured above, *viz.*, those of Khvadavayaka, Figs. 17, 18, Pl. I.; Bhíma Deva, Figs. 19 and 20, Pl. I.; the Kángra coin, Fig. 34, Pl. II.; and also the coins of Mahomed, Masaud, and Modúd.

¹⁴ Mr. Thomas stated that he scarcely expected to find these dates expressed entirely in Arabic characters, and attributes the employment of these to the dominance of Mahomedan power; but this fact is otherwise explained, if, as I have endeavoured to prove above, the Arabs *received* their numerals from India, directly *through* Kábul; and if the peculiarities of the Arabic numerals have their origin in the indigenous peculiarities which distinguished the Kábul system of numerals, with the exception of some slight later modifications adopted principally to facilitate rapid writing. (See pp. 544, 545, vol. xiii. J.R.A.S., N.S.)

This admission is that one date at least, viz., 814, has been undoubtedly copied mechanically on later coins, just as the early English mints of Furrakhábád and Murshidábád reproduced for many successive years mechanical imitations of the rupee of Sháh Alam's nineteenth year. I do not pretend to give any explanation of the selection of this particular date, which on the hypothesis of 189 A.D., as the initial date of the Gupta era, would be equivalent to 1003 A.D. There may, of course, have been some special reason for its adoption, or it may have been a type accidentally taken as a model by Mahomedan or other mint-masters, and reproduced unintelligently as it became a standard form. Mr. Rodgers has pointed out to me that the successors of Zain-ul-Abidín, in Kashmír, copied for many years, mechanically, the reverse type of his silver coin, which contains, in words, the date of 842, though giving correctly their own names, and sometimes their own correct dates in numerals also, on the obverse of these coins.

Having, however, made this admission, it is necessary to explain why I have ventured to dissent from the skilled judgment of Mr. Thomas. In the first place, appeal may be made to the coins themselves on which Mr. Thomas accepts the numerals as representing a date. If it were possible to read the figures which it is proposed read 812 Gu, 813, and 814, as all varying forms of one same group, this can at least hardly be said of those read as 802 Gu, 815, and 817; while 886 is entirely and unmistakably different, and it seems scarcely likely if such violent changes took place in the last number (or first, according to Mr. Thomas) of the group, that they should rarely extend to the second, and not at all to the third number. So far, therefore, as even the evidence of the later class of coins themselves is concerned, the evidence that the

groups of numerals on them represent *consecutive* groups seems little capable of resistance; and if so, then as the change is almost wholly confined to one extreme of the group, the other extremity must perforce represent the number of the century.

But to this must be added the evidence of the earlier series of coins, which, however, I do not understand Mr. Thomas to accept. If the groups of numerals on those without the word "Gupta" be accepted as numerals, it is pretty certain that those on the coins with it must also be so taken, and the dates of '98 and '99 Gupta, to say nothing of those of 707 and 727, are entirely opposed to the initial date of 319, which Mr. Thomas supports.



It is, however, to be remarked that this class of coins would present on my supposition examples of dates written in *both* directions.¹⁵ But this in itself is no anomaly on Indian, and specially on Hindu coins. For example, on the gold coins of the Guptas themselves, the legends read sometimes round the edge with the heads pointing outwards; and, again, on the same coin, upright in the centre of the coin—one letter piled perpendicularly over another. On the Hindu coins of Kashmír the same thing occurs. On the coins of Toramána, for instance, the name of the king on the obverse is written round the margin with the heads of the letters pointing to the centre of the coin, and on the reverse the legend reads across the diameter of the coin. On an unpublished coin in my own cabinet of Pravaraséna the name is written as Toramána's, while the name of the mint "Gandara" (for "Gandhara" probably) is written on the reverse, one letter over the other penpen-

¹⁵ By my reading, however, the word "Gupta" or "Gu" would in every case and on both classes of coins *follow* the date. On Mr. Thomas's theory it would on the earlier coins follow, on the later precede, the date.

dicularly; and on a coin of "Hirnya" (Hiranya?) in the possession of Mr. A. Grant, also unpublished, the name is written exactly in the reverse way to that on the coins of Toramána and Pravaraséna.

It has been necessary to defend the reading of the later coins suggested, rather in order to answer Mr. Thomas's arguments than to maintain the main argument of this paper; for, as has been before pointed out, the conclusions at which I have arrived rest wholly on the evidence of the earlier coins, and if that evidence is correctly rendered, it is conclusive against Albirúni's date of 319, as also against the readings of the later coins adopted by Mr. Thomas in accordance therewith.

I am not able apart from the dates to suggest an assignment to any particular king for these later coins or to interpret them, as seemed possible, by the monograms occurring on them, one of which at least appeared at first sight to favour a connection with the name of "Bhíma;" but the monograms are too numerous for the few names of the later kings, and indeed fit no other name but that of Bhíma (pâl). I may observe, however, that the date of 189 A.D., if accepted as the commencement of the Gupta era, would bring down the years 812, 814 of that era, to a date immediately succeeding the battle near Pesháwur in 1001 A.D., 392 A.H., in which Mahmúd defeated and captured Jáipál. 815 Gupta would be equivalent on the same hypothesis to 1004 A.D. = 395 A.H., the date of the capture of Bhéra (or Bhíra), which was one of his capital cities. 817 would be 1006 A.D. = 397 A.H., about which year the Hindu convert, whom Mahomed had left as Governor in the Indian possessions, must have apostatised and revolted; for he was overthrown by Mahomed in the following year. If this were so the later

series of coins would probably all be referable to the Bhéra Mint, of which  or  "Bhí," may be the mint-mark. This last coin being struck by a usurper, a rebel, and an apostate, would naturally form no model for the use of the Mahomedan mint masters; and as the coins of 815 are very rare, the capture of Bhéra would probably have taken place early in that year, and when the coin of 814 would be the latest type freely current. (See Elliot, vol. ii. pp. 438—441.)

As regards Albirúni and his authority, it is very certain that his statement at any rate cannot apply to the era used by the Guptas themselves on their coins, for they can hardly have *used* an era dating from their own extinction. If not, then what era could they have used? If they used the Sáka era, and if the Kshatrapahs used the Vikramáditya era (and¹⁶ they pretty certainly used either that, or some

¹⁶ Although the date of the Kshatrapah era is not exactly within the province of the present paper, it is so important a factor in all the calculations as to the chronology of this period, that some of the reasons which appear to warrant the assertion that it must have been, if not identical with, very nearly approaching the Vikramáditya era are given here by way of a note. (1.) Asóka Maurya certainly reigned over the territory which the Kshatrapahs subsequently possessed till *about* 225 B.C. He was certainly followed by a crowd of Græco-Bactrian and Parthian, if not also Indo-Scythian kings, to whom it is not too much to assign a period of a century and three quarters, or even two centuries. (2.) The Kshatrapah kings were, we know, preceded by at least one king of another race, who was destroyed by an Andhrabritya king from the south, and both he and the Kshatrapah kings show traces of the previous Greek domination in the legends of their coins, and even, to some extent, in their earliest types. (3.) The Kshatrapahs again were pretty certainly succeeded by the later Guptas, somewhere about the ninetieth year of the latter, or a little earlier, during the reign of Chandra Gupta II. (4.) From the fourth Kshatrapah king after Chastana (I do not quote Jiva Damnas date, which may be

nearly equivalent era), then the whole of the Gupta kings would have been reigning parallel and contemporary with the Kshatrapah kings, whose series comes down to at least 304 of their era, for $304 - 57 = 247$, and $78 +$ (Skanda Gupta's latest date) $146 = 224$ only, whereas it can scarcely be doubted from numismatic evidence that the Guptas *followed* the Kshatrapahs. The Vikramáditya era if applied to Gupta dates would of course bring out results still more opposed to probability. It follows then the Guptas must have used some special era of their own anterior to the Valabhi era, and this is really the point at issue. It is not necessary to inquire how a writer of Albirúni's curious accuracy was led into error, for there can be no doubt of his meaning, though in some MSS. of his work the statement is coupled with an expression which indicates that the author was not himself quite

doubtful) to the latest, a period from 72 to 304 of their era elapsed, and their last king possibly reigned later still, for he had only been four years on the throne then, and as his grandfather ceased to reign only one year before his accession, he cannot have been old in 304. Nahapána, the only known king of the dynasty who preceded them, was reigning in the year 46 of that or some closely equivalent era. (5) Now there is hardly any time into which the long period of over 260 years of peaceful rule will fit in the history of Western India, *after* the Greek domination, except the earliest centuries of the Christian Era. And of the Kshatrapah kings I am in a position to say from dated coins that the fourth, fifth, and sixth kings together reigned at least sixty-nine years; Rudra Séna, the son of Vira Damna the sixteenth king after Chastana, reigned full eighteen years. Swami Rudra Sena, son of Swami Rudra Damna the antepenultimate king, reigned at least twenty-seven years, and several other kings had reigns of ordinary duration, the seventeenth, eighteenth, and nineteenth reigning, for example, twenty-four years between them—say, eight years apiece. Such a duration of reigns argues a long period of comparatively peaceful rule hardly to be looked for, as already said, in Western India except about the period named.

certain of its accuracy; he was probably put in the wrong by his informants, but whence their mistake arose is less easy to say, and is indeed hardly material.

The question of the Valabhi dates themselves bears more immediately on the general question, for we now possess a series of dates distributed pretty closely over sixteen of the recorded kings of that dynasty, beginning with the fourth and ending with the nineteenth. The first king was father of the succeeding four, and the earliest date employed by the fourth king is 207, though he reigned some years later also.

It is palpable that this date cannot be applied to any era beginning with the foundation of the dynasty, for it is impossible that two generations should be spread over two centuries, while the genealogy is so often repeated in the inscription that there can be no possible mistake on this point.

If again these dates be applied to the Valabhi era of 319 A.D., they would bring down the later kings of the dynasty past the middle of the eighth century, for their dates reach to 447. At the close of that century or shortly afterwards arose, as we know, the Chawára kings, and the interval would not suffice for the intermediate reigns of the many kings whose dated copper plates are extant. Besides it is improbable that if the Valabhi kings had the selection of their own era, that they would have *chosen* one having an origin so distinct from their own, and therefore most certainly referring to some event unconnected with their rise.

Albirúni (as well as tradition) informs us that the Guptas immediately preceded the Valabhis. The tradition recorded by Major Watson, though contradicted by the inscriptions in some respects and improbable in

others, contains two points which are quite consistent with the inscriptions, and as to one indeed is directly supported by them. These statements are to the effect that the family of the Valabhi kings was founded by a subordinate of the Guptas; and, secondly, that they made themselves practically independent two years before the death of *Skanda* Gupta, and avowedly so soon after that event.

That the earlier kings at least, if not all of the race, owned some sort of superior authority has long since been shown by Dr. Bühler from the language of the inscriptions themselves. Not to multiply references, the following quotation expresses his views—views which on other grounds seem to be at least probable. Writing on a Grant of Dharaséna I., *Ind. Ant.* 1877, p. 9, he says:—“In my article on the Grant of Dharaséna I., of Samvat, 216, I pointed out that this maharāja was certainly the vassal of some greater king; and that Dronasinha’s boasted coronation had not raised him much above the position which his predecessors, the two sénapatis or generals, occupied I will now express my belief that eventually we shall find it proved that the Valabhi dynasty was at no period free from vassalage, except perhaps during the reign of Dharaséna IV., who calls himself ‘King of kings, Chakravartin, Emperor, and Supreme Lord.’”

I may add that one copy of the “*Mirát-i-Ahmadi*,” a local history of Gujerát (a very fine copy),¹⁷ expressly

¹⁷ This copy is the property of Rao Bahadur Bholanath Suratni. It seems to have been made from an original, prepared by the author with a special preface, as a presentation copy for the chief who was Soubadár of Gujerát at the date of its publication.

asserts that Gujerát was subject to the Kanouj kings *till* 812, (*in one copy, 802*) *Vikraméditya*. This work is no doubt of comparatively late date, but it was locally and very carefully compiled, and there can be little doubt that this statement, though I have not yet been able to trace it further, is made on good authority. If this be so, the assertion of the tradition that Bhatarka, the founder of the Valabhi race, was originally a deputy of the Gupta kings, seems *primá facie* likely, and the Valabhis may afterwards have owned a more or less nominal dependence on the Kanouj kings, such as the Soubadárs of Oudh, Bengal, and the Dekhan owed to the throne of Dehli during the decadence of the Moghul Empire.

If this be so, there is no inherent improbability in the fact stated in Major Watson's tradition, that the Valabhi Bhatarka became independent about two years before Skanda Gupta's death, which was probably a period of weakness, for the greatness of the Gupta kingdom almost entirely ceased at his death.¹⁸

These facts then would all be in consonance with the continued existence of an acknowledged subordination, more or less real, to the Kanouj rulers for the time being; a subordination which would not improbably have induced the Valabhi kings to continue the unchanged use of the Gupta era.

If this be so, then 207 of the Gupta era would put the latest known date of the fourth king down to sixty-one years after the death of Skanda Gupta (placing that in 146 of the Gupta era), and sixty-three years after the independence of Bhatarka, the father of this king, in

¹⁸ I have, since writing the above, come across Major Watson's paper in the "Indian Antiquary," vol. iii. p. 41, which confirms the fact above stated on other authority.

accordance with Major Watson's tradition. No doubt this is a long period to allow for an interval of only two generations, but not an impossible one,¹⁹ particularly in a polygamous nation, where brothers are often of a very unequal age. With the exception of this point there seems no other chronological objection to the adoption of the Gupta era by the Valabhi kings, as General Cunningham, and, I believe, Dr. Bühler also, have long since recognised.

But it may be asked what then was the Valabhi era of 319 A.D., the existence of which rests not only on Albirúni's authority, but at least on the evidence of one inscription and of universal tradition? As has been shown, it cannot in any case have been that which was commonly employed by the Valabhi kings themselves. It may have taken its rise, for example (as some tradition asserts), from the foundation of the new city of Valabhi. I venture to suggest another *possible* date, viz., the death of Kumára Gupta.²⁰ This apparently took place in the

¹⁹ The interval from our own George III.'s accession to the death of his son William IV. was seventy-seven years. Bhatarka in all probability was somewhat older than George III. at his accession, for he held official rank before it; the fourth king reigned for several years, and the fifth king was also his son; but this last probably reigned a very short period, as his name is omitted altogether in some of the genealogies. On the other hand, the Duke of Sussex survived his brothers several years.

²⁰ It is not proposed to *insist* on the date of Kumára Gupta's death as that of the initiation of the Gupta era. According to Major Watson's tradition there was an interval of two years between the virtual and the avowed independence of the Valabhi ruler. See "Arch. Survey Report," vol. ix. fig. 3, pl. v. General Cunningham is inclined to assign some of the rude coins, to which allusion has been made as probably posthumous, to a son of Kumára Gupta, other than Skanda Gupta, and it may well be that the Valabhi ruler for a time put forward the name of some puppet of the Gupta race to cloak his own ambitious objects.

year 130 of the Gupta era, for a coin of his dated 130 is published by General Cunningham in vol. ix., "Arch. Survey of India," p. 24; and his successor seems to have ascended the throne the same year. ("Arch. Survey," vol. ix. p. 21, Thomas's "Dynasty of the Guptas," p. 55.) If the Valabhi kings rebelled against Skanda Gupta, having been before vassals of Kumára Gupta, they may have professed to ignore the former altogether;²¹ and in support of such a theory it may be said that there was a very large issue of rude coins in Kumára Gupta's name, but of the general style and execution of the Valabhi coins. These Dr. Bühler has already, on purely numismatic grounds, recognised as a *posthumous coinage* struck by the Valabhis after Kumára Gupta's death. Of course, this assumption would exactly throw back the initial date of the Gupta era, as already suggested, to 189 A.D., which is well within the possible limits already assigned in the beginning of this paper, and which, as has been shown, fits other facts sufficiently well. An earlier date would suit, perhaps, better with the end of the Kshatrapah, a later one with the beginning of the Kábul dates; but in either case there exists no great difficulty in the hypothesis.

Certainly the early part of Skanda Gupta's reign would seem to have been a period of civil war—and unsuccessful civil war according to his inscription on the Bhitari Lát. ("Journal Royal Asiatic Society," Bo. Branch, vol. x. p. 59), but I *prefer* the date 189 A.D., though it may be either late or too early. Of course this would make the period occupied by the four first Valabhi kings some sixteen years longer. But this is still not impossible.

²¹ It seems at least not improbable that the Valabhi era, though no doubt known and recognised, was not one which ever came into general use; one or at most two inscriptions mention it, and even then merely as the equivalent of another era, and they are of late date. It was not improbably a courtier's era, much like Akbar's Iláhi era.

I feel, however, bound also to notice the views on this question which have necessarily been advanced by writers whose account demands respect. Professor Oldenburg, in a paper recently published in the "Zeitschrift für Numismatik," and reprinted in the "Indian Antiquary," attributes to the Kshatrapah kings an era of their own, and holds the Kanishka dynasty of Indo-Scythians to have originated the Sáka era, beginning 78 A.D. Now as their dates show that they reigned for at least ninety-eight years, he considers that this last fact necessitates a much later period for the Guptas, who succeeded them (and who succeeded also the Kshatrapahs), on account of the great state of degradation into which the coinage of these Indo-Scythians, more or less gradually, passed. This last argument is no doubt a perfectly legitimate one, but the facts on which it is founded are capable of an explanation consistent with an assignment of an earlier date to the Guptas.

Indeed these facts as regards the *gold* coinage of the Indo-Scythians in India "intra Gangem," are hardly correctly stated. The best types of the Indian gold coinage of the Indo-Scythians pass almost without break into the gold coinage of the Guptas.

Gold Indo-Scythian coins of a more degraded type do no doubt occur, but the experience of Indian collectors, if consulted, will show that these are found almost exclusively in the Punjáb, or at any rate in the country to the north of the Jumna River, a tract to which the *direct* sovereignty of the Guptas almost certainly did not extend. It is true that the Gupta kings boast, in their inscription, that the kings as far as the Yaudhýyas (the people of the Panjáb salt range) were tributary to them; and this may have been the case. But there is, so far as I am aware, no evidence whatever to establish their direct rule so far

to the north; on the contrary, the Indrapúra grant, of 146 Gupta, only claims for them the "Antarved," that is the country between the Ganges and the Jumna. The Vishnu Purána assigns to them only Magadha and the country along the Ganges to Prayág (Allahabad); and while other authorities extend their territories as far to the east as Sakéta, there is no mention anywhere of their possessions comprising any part of the country north of the Jumna, which river was, therefore, probably the extreme upper limit of their direct rule. The country beyond that river seems to have been for a time, at least, in the hands of kings of Indo-Scythian descent, or of kings who had adopted Indo-Scythian types of coinage, though this part of the numismatic history of India has scarcely yet been fully examined.

The copper coinage of the Indo-Scythians no doubt, as pointed out by Professor Oldenburg, suffered, even in the country once held by the Guptas, extreme degradation, such as probably required a considerable period of time to effect, but it does not follow that this time must have elapsed *before* the Gupta rule began. It is to be remembered that the Gupta kings seem hardly to have coined in copper at all. Copper coins of only one or two of these kings have been found, and these are among the rarest of all Indian coins; moreover, so far as I am aware, they seldom occur except in the immediate neighbourhood of the Gupta capital, Kanouj. Whence, then, it may be asked, under Gupta rule, came the supply of copper money which the necessities of the country no doubt demanded? The answer may fairly be obtained from a review of what has happened under English rule in India. It is only, it may be said, within the last fifty years that any attempt has been made to supply an adequate and authoritative copper

currency ; and, meanwhile, not only have petty princes in independent states coined with all sorts of devices, but even bankers at large centres of trade, *e.g.*, at Gorakhpúr and Jagádhri, have supplied rude copper tokens which pass current to this day, and are even in some places still preferred to the neat Government coinage.

Under such a state of things an imitation of the current types would be only natural, and would doubtless eventually, though gradually, result in very crude caricatures of the original model. The deterioration, therefore, of the Indo-Scythian coinage probably went on, not only before the accession of the Guptas, but under, and even possibly after them. And assuming the Kanishka dynasty to have arisen in 78 A.D., and to have continued for about one hundred years, a position which I am not, at present at any rate, concerned to dispute, there is nothing in this fact, at least on numismatic grounds, and I am aware of no others, to militate against the initiation of Gupta rule some time during the two latter decades of the second century A.D.

General Cunningham, in the last published volume of the "Archæological Survey," approaches the subject rather from the point of view adopted in this paper, but is now disposed, chiefly on the strength of certain astronomical calculations, to place the date of the Gupta era earlier by some twenty or thirty years than has been suggested by myself.

Unfortunately these calculations are so beset on every side with chances of error that it is wholly impossible to accept them when they conflict with other trustworthy testimony ; for example, when an eclipse is mentioned it is rarely certain whether the date given refers to the eclipse itself, to the date of the execution of the grant, or

to some other fact. In some cases, as in that of the Morbi Grant, it is impossible that the date can refer, as it stands, to the eclipse which it records.²² Again, it is very doubtful to what degree of accuracy the methods of the older Indian astronomers, or of any particular astronomer, attained; and certainly several local differences in the mode of calculation existed. When to these sources of error in ancient days are added those of modern calculators, not perhaps perfectly versed in all the ancient modes of working, the chances of error are indefinitely multiplied. The extremely conflicting results brought out from time to time from the same data are in themselves such as to shake all faith in the value of this source of information. Indeed, there is nothing further to add to what is said on this point by Mr. Thomas in pp. 542, 543, vol. xiii. J.R.A.S. (N.S.).

General Cunningham, however, relies on another piece of evidence, which, though it hardly conflicts with the data assumed in this paper, may be stated briefly thus: Samudra Gupta claims to have received tribute from "Daiva pútra sháhán sháhi;" this was the title of the Indo-Scythians of the Kanishka race; this race was identical with the Yuechi of the Chinese historians. According to the latter the Yuechi put their kings to death, and were

²² In *Knowledge* of June 9th, 1882, pp. 26, 27, is a paper on the Babylonian calendar, which shows several eclipses recorded on similarly "impossible" monthly dates. The fact is explained by the hypothesis that the year consisted of twelve equal months of thirty days each, with an intercalary month every sixth year. Perhaps this was the model of the Gupta year. See grant of Dharaséna II., "Ind. Antiquary," vol. vii. p. 69, which gives a date of the *fifteenth* day of the "dark" half of the month (of course "dark" would be a misnomer); but if this be so, we have still much to learn of Indian eras before we can apply astronomical tests with accuracy.

afterwards ruled by military chiefs, sometime between 220 and 280 A.D., Samudra Gupta therefore must have reigned before the kings were put to death. Admitting that no other race used the title of "Daiva pútra sháhán sháhi," and that the Kanishka Indo-Scythians were meant by the Chinese under the title of Yuechi; and, further still, that these military chiefs did not arrogate to themselves the high-sounding title quoted, all of which points may be open to doubt; still, all that can be said is that under the very latest date suggested above for the Gupta era, viz. 200 A.D., Samudra Gupta's reign, which ceased in or before the eighty-second Gupta year, will fall almost, if not entirely, in the interval—220 to 280 A.D.

On the other hand this evidence is of value, as it confirms the probability of the existence during the Gupta rule, of an Indo-Scythian dynasty in the Punjáb or thereabouts, which has been already inferred from independent facts.

In conclusion, it may be said that, although it cannot be hoped that the vexed questions of ancient Indian chronology, with which this paper deals, are fully determined; and if views have been hazarded regarding them which are directly at variance with the conclusions of skilled and experienced writers—yet this has been done because there are new data which seemed to deserve examination and an attempt to reconcile them with the whole of the known facts; I venture, therefore, to submit the results to which this has led me, in the hope that the discussion may at least help towards a satisfactory decision of the points at issue.

E. CLIVE BAYLEY.

DESCRIPTIVE LIST OF COINS ENGRAVED.

1. Copper. British Museum. Weight 30.3 grs.

Obv. Peacock with outstretched wings, as on Gupta coins; dotted marginal circle. Degraded execution and poor preservation.

Rev. Lion of Varka's type to the left.

Legend श्री कमर . . ? Sri Kamara . . ? or Kamra ?

2. Copper. My cabinet. Weight 33 grs.

Obv. Elephant (as on Varka's coins) to the left; rude execution.

Legend श्री पद्म . . ? Sri Padama . . ? Pakma ? Vakama ?

Rev. Lion to the right. Spirited execution. Mono. द ? D . . ?

3. Silver. E.I. Office.

Obv. Bull Nandi.

Legend श्री स्यालपति . . . Sri Syalapati (Deva).

Rev. Horseman to right; in front of horse the

Legend . . . गुप्तः ? ? Gupta . . . ?

4. Silver. British Museum.

Obv. As on preceding coin.

Rev. Horseman in front of horse the

Legend ए८ गुप्त (?) 98 Gupta- (sya ?).

5. Similar coin. British Museum.

Rev. Legend ए९ गु . . : 99 Gu . . ?

6. Group of letters representing the word "Gupta."

7. Similar coin to fig. 5. My cabinet. Very poor preservation.

Rev. Legend ७०७: 707.

8. Similar coin. My cabinet.²³

Rev. Legend ७२७: 727.

²³ This is only a cast; it is given, nevertheless, because the figures are more distinct than on most of the genuine coins, of which, however, there are several of this date both in the British Museum and in the India Office.

9 and 10. Similar coins. E.I. Office.

11. Silver. Mr. C. J. Rodgers.

Obv. As on the preceding coins.

Rev. Horseman with Arabic legend in front of horseman (conjecturally) ? ? **عالي المحمد رعاية** *áali al Mahomed riyayat* ? ? **عالية للمحمد رعاية** *áalayat li al Mahomed riyayat* ? ?

12 and 13. Two similar coins. British Museum.

14. Silver. Bibliothèque Nationale, Paris.

Obv. Bull Nandi.

Legend **المقتدر بالله** *Al Muktadir billah*; Mono. **ड ?** *ṭh.*

Rev. A horseman to the left without spear.

Legend **لله جعفر** *Lillah Jaffir*.

15. Copper. My cabinet. (Devices in outline.) Wt. 24.3 grs.

Obv. Elephant (as on Varka's coins) to left.

Legend **श्री समन्त देव** *Srī Samanta Deva*.

Rev. Lion to right.

Legend (over lion) ? ? **المتقى** *Al Mutaki (billah ?)*.

16. Similar coin. My cabinet (poor preservation). Wt. 50 grs.

Rev. Legend (over lion) Arabic undeciphered.

17. Silver. British Museum.

Obv. Bull Nandi.

Legend **श्री खदवयकः** *Srī khvadayahah*.

Rev. Horseman. Mono. **म ?** "ma?" and **عدل** "adil:" in a species of toghra a date ^{٨١٤}? 814?

18. Similar coin. British Museum. Of ruder execution and with a monogram undeciphered below the horseman.

19. Silver. British Museum.

Obv. Bull Nandi.

Legend **श्री भीम दे** . . *Srī Bhīma D(eva)*.

- Rev. Horseman. Mono. भी and म? "bhí" and "ma." Date ८१५ 814.
20. Similar coin. E.I. Office. Mono. भी "bhí," and rude imitation of عدل "adal." Date ८१५ 814.
21. Silver coin. My cabinet. (Poor preservation.)
Obv. Bull Nandi.
Legend श्री समन्त देव Srí Samanta Deva.
- Rev. Horseman to right.²⁴
Legend محمد "Mahomed" over horse's head. Date ८१५ 814.²⁵
22. Similar coin (my cabinet), but with the name مسعود "Masaúd" substituted for that of Mahomed.
23. Similar coin (Mr. Rodgers), with the name مودود "Módúd" substituted for that of Mahomed.
24. Similar coin, but without Arabic legend, of late execution. E.I. Office. Date ८१२ गु 802 "Gu."
- ²⁶ 25, 26, 27. Similar coins. My cabinet. Dated ८१२ गु 812 "Gu." Mono. टट? ††?
28. Similar coin. My cabinet. Dated ८१३ 813. Mono. क? ka?
- ²⁶ 29, 30, 31. Similar coins. My cabinet. Dated ८१५. Mono. भी and عدل "adal."

²⁴ Attention may be drawn to the horseman's spear, which, instead of the pointed head, bears a ring such as is used for playing the game of chougán; probably some sarcasm is implied.

²⁵ The dates on all the individual Ghaznevide coins engraved show no figures clearly save only the numeral 4, but a numerous series in the cabinet of Mr. C. J. Rodgers shows that the true reading in all cases must be that given above.

²⁶ The coins with the dates ८१२ Gu. and ८१५ are rather common and are found with varying monograms. I have one of the latter with the monogram टट and in the British Museum the monograms स and गु likewise occur in connection with these dates.

32. Similar coin. My cabinet. Date ٨١٥ 815. Mono. عدل
 "adal."
33. Similar coin. E.I. Office. Dated ٨١٧ 817. Mono. illegible.
34. Copper. My cabinet. Probably of Kangra dynasty.
 Weight 51 grs. Rude copy of preceding type. Date
 before horse ٨١٤ 814.
35. Similar coin (in my cabinet). Weight 51.25 grs.

This coin is of very degraded type. The figure of the bull may be made out on the obverse, but with no legend; the hind quarters only of the conventional horse are given on the reverse with the date ٨٨٦ 886.²⁷

²⁷ The weights only of the new copper types published are given above. The silver coins are all apparently of the Kábul standard, which Mr. Thomas considers to be about 48 grains. The average of selected specimens I found to be about 51 grs and some reach to 52; their original weight may have been a little higher still.

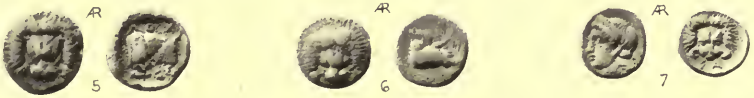
The equivalents of the early dates are, to distinguish them, given in the above list in *Hindi* numerals,—those of later dates in *Arabic* numerals.

X.

ON THE WEIGHTS AND DENOMINATIONS OF TURKISH COINS.

THERE is but one serious difficulty connected with 'Othmánly coins, and that is their metrology. The coinage of other Mohammadan dynasties is of a more or less simple character; dínárs and dirhems, with very occasional and elementary subdivisions, have comprised the denominations of all gold and silver issues; and the fluctuating and anomalous copper coinage which accompanied them has defied metrological analysis. Even if the standards and titles of the earlier Mohammadan issues presented a more important field of metrological inquiry, the data appear to be almost wholly wanting. The weights and titles of dínárs and dirhems were constantly changing, at the bidding no doubt of the financial exigencies of the particular State or sovereign; but in the vast majority of instances the records as to these changes and their causes are not to be found. In preparing my catalogue of Oriental Coins in the British Museum, therefore, it has not been necessary and rarely possible, hitherto, to enter with any reasonable prospect of commensurate results into the vexed questions of Mohammadan metrology. With the 'Othmánly coinage, however, the case is different. Here we have some data to go upon. The commercial relations between Turkey and the other European powers

[IV]



[VI]



made some sort of approximation to European systems of currency necessary, and also called forth from time to time official tariffs of exchange between Turkish and other coinages. These documents not only deal with the exchange value and the mutual relations of the various 'Othmánly coins, but often give their weights and certain rough descriptions of their appearance and distinctive marks. The question of weights and denominations has occupied my attention lately, inasmuch as no description of the modern Turkish coinage, such as that upon which I am now engaged at the British Museum, would be complete without the name by which each coin is distinguished in Turkey, and this denomination is, as a rule, only to be determined by the weight of the coin.

The early Turkish coinage, indeed, presents little variety of denominations. The *akcheh* or *'othmány*, a small silver coin, was the only piece issued by Urkhán, son of 'Othmán I., when he inaugurated the Ottoman coinage in 729. The *mangir*, a copper coin, was introduced by his successor, Murád I.:—it was of uncertain value, and ranged apparently at first from eight to sixteen to the *akcheh*, and eventually became of equal value with it. After the conquest of Constantinople, Mohammad II. for the first time issued (in 883)¹ the gold coin called *altun*, or more generally by numismatists *sequin*. Previously foreign gold coins, especially the Venetian ducat, had sufficed for the Turkish currency, counter-stamped, however, according to M. Belin, with "*sahh*, contróle," in a square. The *altun*, or *sultány altun*, was known by various other names, according to the predominant foreign com-

¹ The first Turkish gold coin in the British Museum is not of Mohammad II., but of his successor Bayezid II., and bears the date 886 A.H. (1481 A.D.)

mercial influence:—under western influence it was called *flúry* (florin); under Persian, *sháhý*; and after the conquest of Egypt, the name *Ashrafy*, or *sherífy*, which had been given to the improved coinage of El-Ashraf Barsabay, was transferred to the issues of the Constantinopolitan mint. Thus far, beyond a good deal of deterioration and fluctuation in the weight of the *akcheh*,² there is little to remark about the 'Othmánly coinage. Down to the time of Ahmad III., the gold coins are all simply *altuns* (qualified according to the fancy of the time with various epithets, as *sháhý*, *ashrafy*, *sherífy*, *tughraly*, *jedíd*, &c.), the silver coins, except certain heavy pieces of Syria and Mesopotamia, are *akchehs* or '*Othmánis*, and the copper, *mangirs*.

In the twelfth century of the Hijreh, a new coinage begins. Two standards of gold are issued side by side, and an entirely new system of silver currency is introduced. The two metals must be discussed separately.

The change in the gold currency consisted in the introduction of a second standard. Hitherto the altuns had weighed about 53 grains, sometimes rather more, and often a few grains less. Under Ahmad III., however, in 1123, a different gold coin, weighing 40 grains, or about $\frac{3}{4}$ ths of the old altun, was struck. It has been suggested³ that this new coin was originally an altun of the Egyptian mint and of the old weight, and that it gradually deteriorated until it came down to 40 grains, when it was

² M. Belin's pages (*Journal Asiatique*, 6th sér., t. iv.) are full of records of a constantly increasing debasement of the akcheh. *E.g.* Selim I.—3 akchehs weighed 1 drachm of silver and 60 went to the sequin; Selim II.—akchehs smaller; Mohammad III.—akchehs still smaller and thinner; Ahmad I., still diminishing; 'Othmán II.—akcheh thinner than paper.

³ By M. Bernard in the *Description de l'Égypte* (2nd ed., t. xvi.).

introduced into Constantinople, doubtless with a view to that financial jugglery for which the Turkish mint was famous. There is, however, no evidence either of this Egyptian origin or of this gradual deterioration. We should expect to find Egyptian pieces of 50, 48, 44 grains, and so forth, gradually approximating to the eventual 40 grains. Such, however, we do not find. The new standard of 40 grains comes suddenly into existence, *first in Constantinople* in 1123, and then in Egypt in 1143, with no previous gradations of weight.

This sudden introduction of a perfectly new standard weight is a matter of no great surprise in the history of Turkish money, and indeed, taken in connection with the almost contemporaneous change in the silver issues, appears natural. M. Bernard has confused the separate questions of the origin of the *type* and the origin of the *standard*. The type of the new coin is older than its standard. It must be observed that 'Othmánly coins are distinguished by certain regular and constant formulas of faith, or their entire absence. (A.) The old altun has on its obverse the formula, *Dárib en-nadr wa sáhib en-nasr fi-l-barr wa-l-bahr*, "Striker of the shiny (*i.e.* money) and holder of victory on land and sea." (B.) A new formula, *Sultán el-barreyn wa Khakán el-bahreyn sultán ibn es-sultán*, "Sultan of the two lands and khakaan of the two seas, sultan son of the sultan," was first substituted for formula A, on the Egyptian coinage in 982 (under Murád III.), and retained its place there undisputed until 1143, when coins without any religious formula shared its monopoly. This second formula, *Sultán el-barreyn*, gradually ousted *Dárib en-nadr* from most of the Turkish mints; it took possession of the coinage of Aleppo in 1002, of Amid 1013, of Algiers 1032, Tunis 1049, and Constantinople in 1058. The difference

of formula, however, so far has nothing to do with the weight. A and B alike weigh about 53 grains. (C.) In the reign of Ahmad III., which began in 1115, the 3rd type of gold coin was introduced; this had no religious formula, but the Tughra or monogram of the sultan on the obv., and was of the orthodox weight of 53 grains. This new Tughra coin received the name of *fundukly*. It was at the same time that the coins with Formula B were issued with the new standard of 40 grains, and received the name (said to have originated in Egypt) of *zer mahbúb*, which they bore to the time of Abd-el-Mejid. Thus we have (1) from 883 to 982 only Formula A, weight 53; (2) from 982 to 1115 (or a little later) Formulas A and B side by side, the latter gradually monopolising almost the whole coinage, both of weight 53 grains; (3) from 1115 to 1260, a new *Tughra*-impressed non-religious coin, of the old 53 weight, distinguished by the name *Fundukly*; and the already known Formula B coin, now reduced to a new standard of 40 grains, and called *Zer Mahbúb*. M. Bernard was quite right in saying that Formula B originated in Egypt; but the name *Zer Mahbúb*, which is identified with Formula B *and the weight of 40 grains*, was probably not given to the coin before the new weight was invented, and that invention took place at Constantinople, not Cairo. The weights 53 and 40 remained almost unchanged down to 1203, when the mahbúb standard was reduced.

There are half funduklis of 26 and 27 grains, from the time of Ahmad III. in the National Collection, and a half zer mahbúb of 20 grains from the same period. An early quarter sequin zer mahbúb is mentioned by Bernard; but so far as I am aware the quarters are always of the fundukly standard, of about 13 grains, until the reign of Mahmúd II.,

when z.m. quarters are introduced, the subdivisions undergoing variations corresponding to the changes in the units. These variations may be thus tabulated:—

GOLD COINAGE OF MAHMUD II.

Year of Reign.	Zer Mahbúb.	$\frac{1}{2}$ Z. M.	$\frac{1}{4}$ Z. M.	Double (or Mahmúd-iyeh).	$\frac{1}{4}$ F.
1—9	37 $\frac{1}{2}$ grs.	...	...	...	...
1—18	...	...	...	...	13
9—15	37	...	...	...	...
9—13	...	17	...	70	...
15—20	24	14, 12	} 8—5	...	...
21—26	27	13			
26—32	24	12			

It will be noticed that a double mahbúb is inserted in the preceding table. Multiples of the sequin, whether fundukly or mahbúb, existed from the beginning of the double coinage. The British Museum has examples of Mahmúd I., weighing 75, 67, and 80 grains, and of 'Othmán III., 77, 81, 82 grains; Mustafa III., 71, 74, 75, 80 grains; 'Abd-El-Hamid I., 79 and 80 grains; Selím III. (when the z.m. had fallen to 37) 65; and Mahmúd II. 70 grains. These are all double mahbúbs, and their weight is not very different from that of the old mithkál, 71 $\frac{1}{2}$ grains. Besides these, there is a piece of Mahmúd I., weighing 117 grains, which is apparently a triple sequin z.m.; and another of 244 grains which may be a six sequin piece. Mustafa III. issued a gold coin of 150 grains, which may be a quadruple sequin. There is also an ornamental piece of Ahmad III., with a rim, and a weight of 440 grains, which was not intended to pass current. It is remarkable that the double sequins, though twice the *mahbúb* weight, are of the *fundukly* type, with Tughra on obv. They may, however, equally well be described as 1 $\frac{1}{2}$ Fundukly.

The silver coinage is a much more complicated matter than the double gold standard. In the gold, the scanty notices of the Turkish historians are in very fair accord with the weights and characteristics of the actual coinage as preserved in the British Museum. In the case of the silver this is unfortunately not so. Before discussing these discrepancies it will be necessary to state upon what authorities I have based my conclusions. These are—

1. A useful, painstaking, and learned series of *Essais sur l'histoire économique de la Turquie*, contributed by M. Belin to the *Journal Asiatique*, (sixth series, t. iii. pp. 416—489; iv. 270—296, 301—390, 477—530; v. 127—167), in which everything that can be extracted from the Turkish annalists and from treaties and other documents bearing on finance and coinage is arranged as systematically as the nature of the case permits. How vague and unsatisfactory the results are, and how meagre and rare the definite data, proves, not that M. Belin did not do his best, but that the materials are wanting for anything approaching to a complete and detailed history of Turkish money and finance.

2. The tables of Turkish coins in Bonneville's well-known *Traité* (2nd edition); they are, however, incomplete and very limited in range.

3. Various notes and tables procured for me by Dr. E. Dickson, of the British Embassy, Constantinople, who has kindly devoted much time and trouble to collecting materials for me, and among other things has supplied me with a useful list of coins drawn up by M. Hortolan. Dr. Dickson has left no stone unturned to find any official mint-records or other documents bearing on this subject; but it appears that the officials of the Porte are entirely

ignorant of the history of the currency ; no documents exist ; and, in fact, coining, like everything else in Turkey, has always been conducted in a haphazard, inaccurate, and often dishonest way : a certain number of coins had to be issued at a given time, and only a certain quantity of bullion was in the Treasury for the purpose ; accordingly the amount of gold and alloy, and the weight of the coin, were arranged so as to fit the exigencies of the situation. The result is that we cannot expect any consistent or methodical system of moneying.

4. The *Description de l'Egypte* contains (in vol. xvi. of the second edition) an excellent treatise on the Turkish coinage of Egypt by M. Samuel Bernard. This is perhaps the most valuable monograph on 'Othmánly coins in existence ; certainly it is the most exact and detailed. It has, however, the disadvantage that it is mainly concerned with the provincial mint of Egypt, not with Turkish coins at large ; and it is disfigured by some serious errors, as when the author maintains that the ciphers on the coins represent the year of the Hijreh in abbreviation, and not the year of the reign : *e.g.* 1· stands (according to M. Bernard) for 1210, not for the tenth year of the reign of Selím III., *i.e.* 1212.

5. The main authority upon which to depend is after all the coinage itself. The 1200 'Othmánly coins in the British Museum offer a large induction, and upon them my conclusions must be principally founded. When the written authorities and the coins are at variance, there can be no doubt that the coinage is the safer guide. As, however, until the last twenty years the coins themselves bore no indication of their denominations, and the ghrúsh and its subdivisions and multiples, and the intermediate pieces, were distinguishable only by their weight, the coin-

age may not always be a clear and satisfactory guide. When, for example, we know there were pieces of 5, 10, 15, 20, 30, 40, 60, 80, and 100 paras, and the series is not completely represented in the collection, but only pieces of say 225, 306, and 445 grains, it may be doubtful whether the three are respectively 20,⁶30, and 40 para pieces, or 30, 40, and 60 para pieces, especially since M. Belin's economic history records sudden and extensive alterations in weights. The coins, therefore, require to be used with caution in an examination of this kind, and great allowance has to be made for the extraordinary carelessness and inaccuracy of the mint officials, whereby phenomenal exceptions to ordinary rules may occur, and also for friction, which has reduced many Turkish coins considerably in weight. Nor must it be forgotten that Turkish promise and Turkish performance do not always correspond, and that an edict fixing the weight of a certain coin at so much was not by any means sure to be put literally into practice.

M. Belin distinguishes between the national and the commercial monetary system of Turkey. The former consisted of the altuns, akchehs, and mangirs, which make the course of the metrologist tolerably smooth down to the end of the eleventh century of the Flight.⁴ The commercial system is the silver currency introduced

⁴ A ten akcheh piece is stated by M. Belin to have been introduced by 'Othmán II. in 1028, and to have been called '*Othmány*, after the Sultan. This is confirmed by the appearance of a silver coin of 44 grains weight in the B. M. collection in this very reign. Similar coins of about 40 grains continued to be issued down to the time of the institution of the new coinage.

after that date to meet the exigencies of commerce with European nations. A large number of foreign coins have always assisted the Turkish currency. At one time, when the akcheh was the only silver coin issued at Turkish mints, foreign dollars and grossi served the purposes of the higher denominations of a silver currency. But under Suleyman II., in 1099, the Porte began to issue large silver coins in imitation of its neighbours. The Austrian thaler, and Dutch rix daler (which the Turks called *asadi ghrúsh*), were the chief large silver coins current in the Ottoman empire, and it was in imitation of these that Suleyman II. issued his own large silver pieces in 1099, and gave them the name of *ghrúsh*, which recalls the grossi, groschen, and groat of the Western States. The Dutch dollar weighed $8\frac{1}{2}$ drachms,⁵ and the German 9; but the new Turkish *ghrúsh* was fixed at 6 drachms, or less than 300 English grains (285, or 18·42 grammes, according to M. Belin). Without entering deeply into the question of the exchange value of this Turkish *ghrúsh*, or piastre, as it was called by travellers—not, however, to be confounded with the small modern piastre—it is interesting to notice that the *ghrúsh* and the akcheh, which was its lowest “divisionnaire,” were constantly altering their relations. At first 50 akchehs went to the *ghrúsh*, then 40—sometimes as many as 80, and finally, in 1138, as many as 120 akchehs went to the

⁵ M. Belin gives the “drame” as $\frac{2}{3}$ of the mithkal, which he estimates at 4·618 grammes. The drame, at this rate, would be 3·079 grammes, or say $47\frac{1}{2}$ English grains. The Dutch crown would thus weigh 403 grains. There happens to be a Dutch crown counter-struck with Mustafa II.’s inscriptions, only a few years later than Suleyman II., and this weighs 415 grains. M. Belin’s “drame” is perhaps inaccurate.

new Turkish unit. This last figure, however, is perhaps explained by the fact that another small silver coin, the *para*, had come into existence about the middle of the eleventh century of the Hijreh (before 1066 = A.D. 1655), and that the *para* eventually usurped the place of the *akcheh*. How many *paras* went to the *ghrúsh* originally we do not know; but we do know that at first 4 *akchehs* went to the *para*, and supposing that about 80 *akchehs* at that time made up the *ghrúsh*, the latter must have equalled 20 *paras*. Then, as *para* and *akcheh* deteriorated—as we find they did in almost every page of M. Belin's instructive *Précis historico-économique* (ch. v.)—the *para* came to be, what it continued to be down to the time of 'Abd-el-Mejid, the 40th of the *ghrúsh*, and the *akcheh* became the 3rd of the *para* and the 120th of the *ghrúsh*.

Between the *ghrúsh* and the *para* were a series of subdivisions: the *beshtik*, or 5 *para* piece; *onlik*, 10 *para*; *onbeshtik*, 15 p.; *yigirmlik*, 20 p.; *zolota* or *otuzlik*, 30 p.; the *ghrúsh* itself being 40 p. Beyond the *ghrúsh* were the *altmishlik*, or *double zolota*, 60 *para*; the *ikilik*, or *double ghrúsh*, 80 p.; and the *yuslik*, 100 *para*; but the last three were not so regularly coined, to judge from the collections, as the lower denominations.

We are now able to attack the main question: How are we to distinguish between these various denominations? Or, since there is only the weight to guide us, what were the weights of these various denominations at various periods?

In order to deal with this question, the first essential is to collect all the data that can be gathered from the sources enumerated above. The following table (pp. 178 and 179) exhibits the principal weights of 'Othmánly silver coins.

The weight is expressed in English grains, and has

often had to be reduced from M. Belin's grammes, and since M. Belin has himself reduced the grammes from the Turkish weights, it is possible some error may have crept in, especially as Turkish weights were not always fixed quantities. I have left out fractions; the Turkish mints were so lax in their adjustments, that a whole grain wrong here and there was of no importance! The names of the Sultans, from the introduction of the new coinage under Suleyman II., are given on the left margin; the denominations of the coins are inscribed at the top, and the weights appertaining to them are placed in the corresponding column beneath; the initials preceding each weight represent:—A = Belin; B = British Museum Collection; C = Bonneville; D = M. Hortolan; E = M. Bernard, in the *Description de L'Egypte*. The para is made the unit for convenience of numbering. All the coins were struck at Constantinople, except the few marked E.

Accepting M. Belin's statement that the first ghrúsh, the ghrúsh of Suleyman II., weighed 6 drachms, or say 300 grains, the British Museum coins correspond very well for the first three reigns: ghrúsh, 294, zolota, 223, under Suleyman II.; ghrúsh, 300, yigirmlik, 146, under Ahmad II.; and ghrúsh, 300 or 310, yigirmlik, 150 or 155, and perhaps onbeshlik, 94, under Mustafa II. But the first really conclusive series is that of Ahmad III., of whom the B.M. collection has pieces of 2-4, 10, 52, 100, 150, 204, 300, and 415 grains, which may undoubtedly be labelled akcheh (3), para (10), beshlik (50), onlik (100), onbeshlik (150), yigirmlik (200), zolota (300), and ghrúsh (400). Here the difficulty arises: why was the ghrúsh suddenly raised from 300 to 400 grains? Or are the previous coins of 294, 300 and 310 grains zolotas, and not ghrúsh at

'Othmánly.	¼	1	5	10	15	20	30	40	60	80	100
Sultán.	Akebeh.	Para.	Beshlik.	Onlik.	Onbeshlik.	Yigirmiik.	Zolota.	Ghrúsh.	Altmishlik.	Iklik.	Yuslik.
Suleymán II. A.H. 1099—1102. Ahmad II. 1102—6. Mustafa II. 1106—15.	B 2				? B 94	B 146 B 150, 155	B 223	A 285 B 294 B 300 B 310, 306 298, 293 <i>Imperial</i> dollar counter- struck, 300; <i>Dutch</i> dollar counter- struck 419 B 389, 415 [A, see Zo- lotas]			
Ahmad III. 1115—43.	B 2, 4	B 9, 10, 6	B 52, 56	B 100, 99	B 165, 150	B 204, 198	B 293, 299, 300 [A, <i>Old</i> 290 ² <i>New</i> 390]	B 371, 366, 363, 362 B 365			
Mahmúd I. 1143—1168. 'Othmán III. 1168—71. Mustafa III. 1171—87.	B 3	B 10, 13, 9, 8	B 49, 40, 39, 38 B 43	B 97, 91 B 73		B 186, 180, 176 B 142, 148 E 121	B 259	B 306, 298, B 445 297, 292, 288 D 295 E ('Aly Bey) 245			
	B 3	B 8, 6	B 37	B 70, 69, 66, 65	B 103						

all? In the face of M. Belin's definite statement as to the weight of the first ghrúsh, and considering the absence of any heavier coin than those of about 300 grains, we may dismiss the latter question. How the coin came suddenly to be raised from 300 to 400 may perhaps be explained by the fact that the B. M. possesses two dollars counter-struck with the inscriptions of Mustafa II., the one an Imperial dollar, weighing 300 grains, the other a Dutch dollar, weighing 415 grains. I believe the explanation of the change in the weight of the ghrúsh is simply that the Dutch dollar was taken as the model, in the place of the Imperial dollar. It was precisely at the same period that the 40 grain zer mahbúb gold piece was first issued side by side with the 53 grain fundukly. It may be observed that the proportion between the mahbúb (40) and the fundukly ($53\frac{1}{3}$) is precisely the same as that between the Imperial (300) and the Dutch (400) dollar, or the zolota (30) and the ghrúsh (40). I believe, therefore, that just when the lower mahbúb standard was added to the gold currency, the lower (Imperial dollar) standard was classed as a zolota, and the higher (Dutch dollar) standard introduced as the ghrúsh. Against this view, however, which is based upon the coins themselves, must be set the statement of M. Belin, based upon histories and official documents, that under Ahmad III., in 1131, new zolotas were issued at 8 drachms 1 danek (or 390 grains): the old zolotas being at the same period stated to weigh $\frac{1}{15}$ th of 98 drachms (or 290 grains). It will be noticed that these figures, 290 and 390 grains, correspond pretty accurately with the 293 and 389 of the British Museum specimens; but I am not disposed therefore to allow that these specimens are accordingly an old zolota and a new zolota respectively. If the old zolota weighed nearly 300 grains, the British Museum does not possess a ghrúsh until

Ahmad III.'s time—which, considering the richness of the collection, is improbable; and further, on this theory, M. Belin's other statement that the original ghrúsh weighed 285 grains is incorrect. The simpler explanation, I think, is to regard M. Belin's "old and new zolotas" as errors for "old and new ghrúsh," which at once brings this statement into accord with the rest of the data.

Accepting, then, the hypothesis that in the reign of Ahmad III. the ghrúsh was raised from 300 to 400 grains, just as two gold coins in the same proportion were at the same time issued, it must be seen how the theory works in subsequent reigns. Under Mahmúd I. we find the following scale:—Akcheh 3 grains, para 10, beshlik 49, onlik 97, yigirmlik 186, zolota 289, ghrúsh 371, which are all in very fairly accurate proportion, but all a little reduced, the ghrúsh apparently falling gradually to 362 grains. Under 'Othmán III. the same proportions are preserved, but the weights continue to fall, and under Mustafa III., half a century after the increased standard in silver was introduced, the ghrúsh has returned to its old weight of 300 grains, and even less, and the scale becomes 3, 8, 37, 70, 103, 148, 228, 306, and a very similar scale is maintained during the reign of 'Abd-el-Hamid I. A fresh reduction took place under Selím III. (1203); the para fell to 5, and the ghrúsh to 200 (or 190), and the beshlik, onlik, and yigirmlik were proportionately reduced to 5, 26, 52, and 95, and this remained true for Mustafa IV. Mahmúd II. used three successive scales: in the first (from the first to the fifteenth year of his reign) the para was presumably 5, the beshlik 25, onlik 50, yigirmlik 95, zolota 135, and ghrúsh 200; in the second, the weights were raised about 10 per cent., and a coin which can scarcely be a para, but perhaps a $2\frac{1}{2}$ -para piece, was issued at 11 grains; in the third, this coin became

15 grains, the beshlik 30, onlik 50 (for 60), yigirmlik 120, zolota 180, and ghrúsh 230 (for 240). Under 'Abd-el-Mejîd, after a few years, an entirely new and Europeanised coinage was introduced, which offers no special interest.

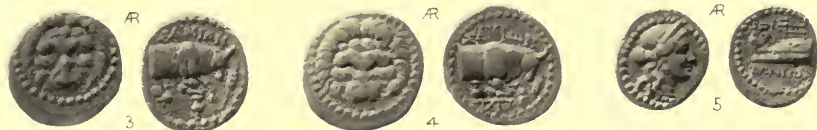
From the time of Mustafa III. (1171—87) those large silver pieces, multiples of the zolota and ghrúsh, which always nominally existed in the reformed Turkish coinage, but I suspect were seldom coined in any large numbers, begin to appear in the British Museum cabinet. The most ordinary examples are the *altnishlik*, or double zolota, of 60 paras, equal to a ghrúsh and a half; and the *yuslik*, or double ghrúsh. The weights of these, according to the authorities, and also according to the coins which I believe to correspond to these denominations, are given in the table, and offer little difficulty. The *yuslik*, or 100-para piece, only occurs, in the British Museum, in the coinage of Selím III., and I am inclined to believe that the weight given by Bonneville for the same piece under 'Abd-el-Ilamîd is a mistake. Under Mahmúd II. a *pièce de nécessité*, the jihadíyeh beshlik (beshlik here meaning "five" ghrúsh, not "five" para), was issued at the low weight of 410, instead of 1000, grains.

The provincial coinage of the Ottoman Empire offers some peculiarities; but these I need not discuss here. I have only endeavoured to draw a sketch of the metrology of the metropolitan mint of Constantinople. The difficulties of the inquiry have been increased by an insufficient number of coins of certain periods, and my theory might be considerably modified by a larger induction. It would be of great service if those collectors who possess Turkish coins would send me the weights of their dated specimens.

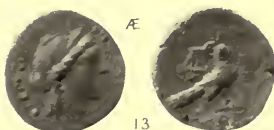
STANLEY LANE-POOLE.

May, 1882.

[VII]



[IX]



XI.

THE COINS OF ANCIENT SPAIN.

Estudio histórico de la moneda antigua Española desde su origen hasta el Imperio Romano. Por D. Jacobo Zobel de Zuñigróniz.

3 vols. 8°, Madrid, 1879.

THE object of this work is to present to the reader a synopsis of the coinage of Spain in the four centuries preceding the establishment of the Roman Empire. The aim of the author is more especially to subject to a critical analysis the haphazard and empirical methods of classification hitherto prevalent among numismatists who have occupied themselves with the interpretation of the so-called "Celtiberian" inscriptions on Spanish coins.

Señor Zobel divides his subject into five parts. In the first he treats of the ancient issues of the Phocæan settlements on the coast of Catalonia. In the second he describes the coins struck in Spain by the famous Carthaginian generals Hamilcar, Hasdrubal, and Hannibal. In the third part he notices the first introduction of a Roman currency into Spain in connection with the political events of that period. The fourth and fifth parts contain descriptions of the coins struck under the supervision of the Roman Republic, both in the ceterior and ulterior provinces.

Among the appendices is a useful chronological table, showing the vicissitudes of the Spanish coinage, and, in parallel columns, the contemporary coins of Rome and Carthage, and the chief historical events which influenced either the one or the other. There is also a map of Spain on which the Iberian inscriptions occurring on the coins are printed under the various localities where the coins were issued. This will be found of great service to collectors in the classification of coins of this little-studied class.

The coins of the Spanish peninsula may be divided into the following classes:—

- | Class. | Before n.c. | |
|--------|-------------|---|
| 1. | 354. | The earliest coins struck in Spain consist of small divisions of the Phocæic drachm, Thirds, Sixths, Twelfths, and Twenty-fourths, weighing respectively about 18, 9, $4\frac{1}{2}$, and $2\frac{1}{4}$ grains. These coins are in all respects similar to others of the same class which appear to have been current in the various Greek colonies along the north-western coasts of Italy, and those of Liguria. The varieties found in Spain are, however, less archaic in style than those discovered in 1867 at Auriol in the Department of the Bouches-du-Rhône, and at Volterra in Tuscany. (<i>Rev. Numismatique</i> , N.S. t. 14, pp. 348—360, and <i>Periodico di Numismatica</i> , 1872, p. 208). For the most part these little coins have archaic heads on the obverse and incuse reverses. |

Emporiæ.
 Circ. B. C.
 354—254. The Spanish finds, however, contain an admixture of coins struck on both sides, which, both in type and fabric, and sometimes also in their legends (**E**, **EM**, **EMΠ**, &c.), betray their origin as the most ancient money of *Emporiæ*, a city founded by Phocæans from Massalia, in the first half of the fourth century B. C.

This town was situated at the north-western extremity of Spain, and it soon rose to be one of the principal ports in the western seas, supplanting and absorbing the neighbouring town of Rhoda, a colony of Rhodes, which lay in the bay at the foot of the Pyrenæum promontory.

The types of the earlier coins of *Emporiæ* have on the obverse either a head of Persephone or of Pallas, and on the reverse a cock, one or two ivy-leaves, three astragali, a cuttle-fish, a two-handled vase, a bull's head facing, a wolf's head, an owl, a man-headed bull, or a goat standing. The later varieties show sometimes a female head, facing, with flowing hair, and sometimes a head of Persephone in profile, and on the reverse the following types, a horseman with flying chlamys, a bird, three birds, a female head, a butting bull, two dolphins, or last, a flying Pegasus, whose head is sometimes

fancifully formed like a little winged Cupid, seated in a stooping posture, and stretching out his hands towards his feet.

The obols of the last-mentioned Pegasus type are contemporary with the better-known drachms of Emporiæ, of which the chief varieties are the following:—

Class. *Emporiæ.*
Circ. R.C.

II. 269. **ΕΝΠΟΡΙΤΩΝ.** Head of Persephone copied from Siculo - Punic coins. | Horse standing, crowned by flying Nike.

[Heiss, pl. i. 1. Wt. 78 grs.]

Similar head l. sur- | **ΕΝΠΟΡΙΤΩΝ.** Pegasus flying r.
rounded by dolphins. | [Heiss, pl. i. 2.]

254. Similar. | **ΕΜΠΟΡΙΤΩΝ.** Pegasus r., his head formed like a crouching Eros.

[Heiss, pl. i. 3—7.]

Head of Artemis r., in | Similar.
front, Dolphins. |

[Heiss, pl. i. 8.]

The weights of the above-described drachms range between 78 and 62 grains.

The standard to which they belong is supposed, by Señor Zobel, to be of Carthaginian origin; its importation into Spain indicating an active commerce between Carthage and the West.

254—206. The money of Emporiæ with an Iberian

inscription, and imitations of the same, struck by various neighbouring tribes, was continued at least down to the time of the formation of the Roman province in B.C. 206; the later issues having been already reduced to the weight of the older denarii of $\frac{1}{72}$ lb., circ. B.C. 226.

In part contemporary with the drachms of Emporiæ were the following coinages of Rhoda, Ebusus, and Gades:—

Rhoda.
B.C.
269—254. **ΡΟΔΗΤΩΝ.** Head of Persephone. | Rose in full bloom seen in front.
[Heiss, pl. i. 1—3. Wt. 78—71 grs.]

Ebusus.
B.C.
269—217. Dancing Cabirus facing, holding hammer and serpent. | Bull walking.
[Heiss, pl. lxiii. 1, 2.]

The island of Ebusus was inhabited by a Phœnician population. They were always closely allied with Carthage, whence the weight standard of their coins was derived. The denominations known are the didrachm, 154 grs., the half-drachm, 39 grs., and the quarter-drachm. The coinage of silver at Ebusus ceases in B.C. 217, when the Balearic islands submitted to Rome.

Gades.
B.C.
269—206. Head of the Tyrian Herakles (Melkart) in lion's skin. | Tunny fish and Phœnician inscriptions.
above, מבעל or מהלם
beneath, אגדר or הגדר
[Heiss, pl. li. 1—4.]

Gades (Cadiz), the great western emporium of the ancient world, was established by the Phœnicians long before the beginning of classical history. The type of its coins refers to the fisheries for which Gades was celebrated (*Athen.* vii. p. 315. *Pollux*, vi. 49. *Hesych.* s. v. Gadeira).

The denominations known are the following :— Drachm, 78 grs. ; half-drachm, 39 grs. ; together with Sixths, Twelfths, and Twenty-fourths of the drachm ; the three last being un-inscribed.

In B.C. 206, Gades submitted to the Romans, and ceased to coin silver.

Class. Circ. B.C.

III. 234—210. Hispano - Carthaginian coinage struck under the rule of the Barcides in Spain.

(i.)	Head of Persephone.	(α)	Horse and palm tree.
	Head of Persephone.	(β)	Horse without palm tree.
	Head of Persephone.		Horse's head (<i>copper only</i>).
(ii.)	Young male head.	(α)	Horse and palm tree.
	Young male head.	(β)	Horse without palm tree.
(iii.)	Head of young Herakles laur. with club.	(α)	Elephant.
	Head of bearded Herakles laureate.	(β)	Elephant with rider.
	Head of Pallas in round crested helmet.		Horse standing (<i>copper only</i>).
	Head of Pallas in round crested helmet.		Palm tree (<i>copper only</i>).

[These coins are figured in the *Monatsbericht d. K. Acad. d. Wissenschaften*, 1863. June, plates i. and ii.]

Wts. Hexadrachm,	354	grs.	} Phœnician standard.
„ Tetradrachm,	236	„	
„ Tridrachm,	177	„	
„ Didrachm,	118	„	
„ Drachm,	59	„	
„ Hemidrachm,	29	„	

The attribution of the above-described series of coins to Spain rather than to the African Carthage, Numidia, and Mauretania, to which countries they are ascribed by Müller, is ably defended by Señor Zobel de Zangróniz, in the first place because they have hitherto been found exclusively in Spain, and this not only singly, but in whole hoards; and in the second place on historical grounds, it being extremely improbable that the Barcide rulers of Spain, who derived their wealth from the rich Spanish silver mines, should have contented themselves with an insignificant copper currency, or should have been at the pains to send their silver to be coined at Carthage.

The coins of type (i.), head of Persephone, are attributed by M. Müller to Carthage; those of type (ii.), young male head, to Massinissa, King of Numidia, B.C. 202—148; and those of type (iii.), head of Herakles, to Micipsa and his brothers, B.C. 148—118.

Señor Zobel points out the improbability of these kings having issued pure silver in large quantities at a time when Carthage herself, for half a century before her destruction, was obliged to have recourse to a billon coinage after having lost the Spanish silver mines.

Style of art, historical probability, and the *provenance* of the coins themselves, all, therefore, seem to indicate a Spanish origin under the rule of the Barcides, B.C. 234—210.

Señor Zobel also regards as Spanish the coins attributed by Müller respectively to Vermina, B.C. circ. 200, to Jugurtha, B.C. 118—106, and to Bocchus I., II., or Bogud I., B.C. circ. 106—50. But of these he is less positive.

Class.
IV. and V. Romano-Iberian and Latin Currency.

The fourth group of Spanish coins owes its origin to the introduction of Roman money into Spain, and to the organisation of a native currency under Roman supervision. These coinages may be called *Romano-Iberian*.

The Romano-Iberian coinage is classed by Señor Zobel under the following geographical headings:—

HISPANIA CITERIOR.

I. Eastern Region.

1. District of Emporiæ.
2. „ „ Tarraco.
3. „ „ Ilerda.
4. „ „ Saguntum.

III. Central Region.

9. District of Numantia.
10. „ „ Bilbilis.
11. „ „ Segobriga.

II. Northern Region.

5. District of Osca.
6. „ „ Pompælo.
7. „ „ Turiaso.
8. „ „ Calagurris.

IV. Southern Region.

- 12 District of Carthago Nova.
- 13 „ „ Acci.
- 14 „ „ Castulo.

HISPANIA ULTERIOR.

I. Eastern Region.

1. District of Obuleo [Corduba].

2. „ „ „ Iliberis.

II. Southern Region.

3. District of Malaca [Abdera].

4. „ „ „ Asido [Carteia].

5. „ „ „ Gades.

III. Western Region.

6. District of Carmo [Hispalis].

7. „ „ „ Myrtilis [Emerita].

8. „ „ „ Salacia [Ebora].¹

It may be laid down as a general rule that the Iberian inscriptions on the *reverses* of the coins furnish the names of the tribes for whom, or by whom, the coins were issued. These names are in many cases identical with those of the chief towns of the district, but this is by no means always the case; and it is remarkable that on the money of the most important towns the name of the tribe takes the place of that of the city. Thus, for example, the Iberian coins

Of Emporiæ are struck in the name of the Indigetes.			
„ Barcino	„	„	Laietani.
„ Tarraco	„	„	Cessetani.
„ Osca	„	„	Celsitani.
„ Numantia	„	„	Aregoradenses.
„ Saguntum	„	„	{ Arsenses or
			{ Ardeates.
„ Carthago Nova	„	„	Sethicenses.
„ Acci	„	„	Igloetes.

The difficulty of attributing the coins with Iberian legends to the various localities is considerable, for it must be borne in mind that a large proportion of these ancient names were exchanged during the period of the Roman

¹ The names in brackets are those of the chief minting places of the Latin and later Imperial coins in the Ulterior province.

dominion for Latin names, and in such cases the attributions must of necessity be more or less conjectural. Only the repeated discovery of the same classes of coins in the same districts can afford us any solid basis for a geographical distribution of the various coins; and even when we are tolerably certain as to the district to which a given class belongs, there must frequently remain an element of uncertainty as to precise locality within that district to which the class in question ought to be ascribed. Even when the exact find-spot of a coin is known, its importance as evidence that the coin was issued there must not be exaggerated, for the reason that the Iberian money was issued for military purposes, and was carried about from town to town, and often from province to province in the military chests of the various legions.

The Iberian coinage was, in fact, Roman money, which it was the policy of the Romans to introduce among the various Spanish peoples of the Citerior Province in the form in which it would be the most acceptable to them, viz. with native Iberian inscriptions.

In the Ulterior Province on the other hand, in the south and south-west, the various communities were left very much to follow their own devices in the matter of coinage, which was, however, restricted to copper. They chose their own coin-types, and placed upon their money the name of the tribe and the names of their own local magistrates in Iberian, Phœnician, Liby-Phœnician or Latin characters. The difficulty of deciphering these inscriptions brings a new element of doubt into the work of attributing the coins of this province, which exists to a far less degree in the case of the money of the Citerior.

The Romano-Iberian coins are classed *chronologically* by Señor Zobel in the following periods:—

Period. Circ. B.C.

- I. 226—214. Victoriati of Saguntum, 1st series, wt. 3 scruples. (Wt. $52\frac{1}{2}$ grs.)
 Emporitān drachmæ reduced to the older standard of the denarius of $\frac{1}{7\frac{1}{2}}$ lb. (Wt. 70 grs.)
 Oldest coins with Latin legends in the Ulterior Province.
218. The Romans begin to strike copper coins in the Citerior Province with Iberian inscriptions.
- [217.] [Reduction of the Roman denarius to the weight of $\frac{1}{84}$ lb.] (Wt. 60 grs.)
- II. 214—204. New issue of Victoriati of Saguntum on the reduced standard. (Wt. 45 grs.)
- III. 204—154. Largest issues of Romano-Iberian money.
 B.C. 195. Emporiæ and Saguntum cease to strike silver.
 B.C. 171. Foundation of the colony of Carteia.
 Carteia strikes the divisions of the As in copper.
- IV. 154—133. B.C. 154. Lusitano-Celtiberian War [of Viriatus or Numantia].
 B.C. 138. Foundation of the colony of Valencia.
 Valencia strikes uncial copper with Latin legends.
 B.C. 133. Fall of Numantia.
 All coinage prohibited in the Citerior except the copper of Emporiæ and Saguntum.

The provincial reforms of B.C. 133 put an end to the official coinage of money with Iberian inscriptions.

The war of Sertorius, B.C. 80—72, brought about a tem-

porary renewal for a few years of copper money with bilingual (Iberian and Latin) inscriptions. There is also an isolated coin with an Iberian legend, and a type which perhaps refers to the fall of Ilerda, B.C. 49. With these exceptions it may be safely affirmed that there are no Iberian coins subsequent to B.C. 133.

LATIN COINAGE.

Circ. B.C.
49—45. Civil war in Spain.

Renewal in some towns of the Citerior Province of a copper coinage with *Latin inscriptions*.

29—A.D. 41. *Imperial Coinage*.

B.C. 27. Augustus. Copper and brass coinage in the three new provinces, Tarraconensis, Baetica, and Lusitania, continued under Tiberius, A.D. 14—37, and Caligula, A.D. 37—41; but under the last only in Tarraconensis.

In putting together the above notes of the contents of Señor Zobel's work, his paper in the *Monatsbericht der K. Acad. d. Wissenschaften*, July—August, 1881, has been a useful aid. Numismatists who are unacquainted with the Spanish language will find in Señor Zobel's short German abridgment of his book many details which I have been here obliged to omit. Nevertheless, without the valuable tables of Iberian and other inscriptions, which are only to be found in the Spanish edition, neither Señor Zobel's own German nor my English abridgment will be of much use to the collector whose only object is to classify and arrange his collection. This, however, he can perfectly well do, without any knowledge of Spanish, with the aid of the various Appendices to Señor Zobel's work.

BARCLAY V. HEAD.

NOTICES OF RECENT NUMISMATIC PUBLICATIONS.

Die Italienischen Schaumünzen des fünfzehnten Jahrhunderts (1430-1530), v. Julius Friedländer. Berlin. 1880-2.

Les médailleurs de la Renaissance, par Aloïss Heiss. Paris. 1881-2.

These two works are the most important which have yet been undertaken upon the subject of the Italian medalists of the Renaissance. Dr. Friedländer's studies are in course of publication in the *Jahrbuch der Kg. Preuss. Kunstsammlungen*, and after each number has appeared in this way, it is re-issued as a Separatausdruck under the title given above. The period over which the work is designed to extend is from 1430 to 1530. It will include the works of forty-six medalists. Very nearly the whole has now appeared, the works of forty out of the forty-six medalists having been described. M. Heiss assigns no exact limits to his studies. He proposes, he says, to issue from time to time fasciculi containing one or more monographs upon the medalists of the Renaissance. Whether he intends eventually to include those who were not Italians we cannot tell. At present, studies of Vittore Pisano, Francesco Laurana, and of Pietro da Milano have appeared. As he informs us that his work has been long in preparation, we must consider him unfortunate in having been to a considerable extent forestalled by Dr. Friedländer. The earliest portions of Dr. Friedländer's work appeared in 1880, M. Heiss's monograph upon Pisano in 1881. Nevertheless there are some special points of interest in both the books.

The interest of this subject is so great, and though so much has been said about the Italian medalists, so much remains to be said, that we could very well extend this article almost indefinitely, and must find some difficulty in confining what we have to say within the limit that our space allows. Dr. Friedländer's book, which may practically be regarded as now complete, allows us to take a glance over the whole of a certain short-lived phase of art. The nearer limit of time which circumscribes his field of study is pretty nearly the demarcation between the earlier style of medal-making and the later still beautiful but certainly inferior style which is associated with

the names of Cellini, Pietro Paulo Galeotto, and Pastorino da Siena. The change in style was largely due to the transition from the practice of casting to that of striking medals. It is not, however, the case that no struck medals are included in the earlier series. The earliest examples of struck medals were some made by Enzola in 1457.

Dr. Friedländer has published a larger number of medals attributable to Pisano than has any previous writer. These are thirty in all. This series includes the medal of Pisano himself which is unsigned. The attribution to Pisano of this medal, which has on the reverse the letters **F . S . K . I . P . F . T .** (initials of the seven cardinal virtues), involves the attribution to him also of the medal of Dante with the same reverse; and by consequence that of two other medals of Dante evidently from the same hand. Taking away these four medals therefore, and one with the heads of Sigismund Pandulfo and Isotta di Rimini on the obverse and reverse, a medal before inedited, the number is reduced to twenty-five, which is the number of medals published by Heiss. All these pieces are engraved in Heiss; eleven medals are engraved in Friedländer. Heiss, therefore, does not admit the medal with the portrait of Pisano to a place among the works of that artist. It is certainly below the average of Pisano's productions. Nevertheless, after a careful comparison with all his medals, taking specially into account the form of the letters, no doubt was left upon my mind that it is from the hand of the great medalist.

One is tempted to linger over the name of Pisano, but I must not do this to the exclusion of the other artists dealt with in Friedländer's work. All the facts of Pisano's life have been diligently brought together by Friedländer, who publishes at length the four Latin poems written in his honour, as well as another poem (here published for the first time), describing a particular medal made by him. Friedländer is indignant at the judgment passed by Crowe and Cavalcaselle upon Pisano's style as a painter, namely that he was strongly influenced by the school of illumination, a judgment which, nevertheless, I think to be substantially true.¹ His style as a medalist, and even as a

¹ The words of Crowe and Cavalcaselle in describing one of Pisano's earliest pictures are these. ("Painting in N. Italy," i. 452). "Long and streaming draperies embarrass the frames, soft and tender harmonies of tint enliven the dresses; shadow is carefully avoided, and the drawing is minute to a fault. . . . That Pisano had just issued from a school of illuminators like Lorenzo Monaco or Pietro of Montepulciano, we might readily

pen-and-ink draftsman, is much freer. Heiss has published copies of some very delightful pen-and-ink or silver-point drawings by Pisano from the *Recueil Vallardi*, most of these being designs for medals, and therefore belonging to the latter years of his life. One example of Pisano's realistic treatment of life subjects is worth noticing. On the reverse of the medal of Cecilia Gonzaga, Cecilia is represented seated, having one hand upon the head of a unicorn which is crouched at her feet. Few artists in representing a fabulous animal would have been careful to make a study from nature in order to insure getting the posture aright. But this is just what Pisano has done. The Vallardi collection (No. 2412) contains a pen-and-ink study of a goat, evidently from life, by the hand of Pisano. The animal has been exactly reproduced upon the medal with only this difference, that for its two twisted horns the single straight and conventional horn of the unicorn has been substituted.

Among the medals of Pisano unrepresented in the Museum collection, or represented only by very inferior specimens, the most important are those of Francesco Sforza, Cecilia Gonzaga, Pietro Candido Decembrio, Filippo Maria Visconti, the fine medal of Sigismondo Pandolfo, with a castle and horseman on the reverse, and the smaller medal of Bellotus Cumanus. These have never been properly reproduced till they appeared in the plates of Friedländer and Heiss.

Among the medals of Matteo de' Pasti, the most beautiful is the large one-sided medal of Sigismondo Pandolfo di Malatesta with laureate bust. This also has been for the first time properly reproduced. Dr. Friedländer has adopted the division of the medalists into schools according to the place in which they lived and worked. Pisano and De' Pasti stand apart as the founders of the medallic art. After them we have the schools of Ferrara, Padua, Venice, Verona, Parma, Mantua, Florence, Bologna and Rome. Some more medalists are grouped together in a miscellaneous class, and after them again two, Pietro da Milano and Francesco Laurana, who worked in the south of France. Heiss here comes in to supply what Friedländer has as yet left undone, for his second monograph on the "*Medailleurs Italiens*" is upon Francesco Laurana and Pietro of Milan. Unfortunately the very poor examples given in Heiss' plates allow us to form no just estimate of the merit of artists. All the "schools" distinguished by Friedländer have

believe." What elsewhere the same writers call "the fashion of embossment, the fine tenuous outline," continued to characterize Pisano's paintings to the last.

not special characteristics, but in some of them an individual style has evidently been developed.

Nothing, for example, could be more interesting than to contrast with the elaborate and delicate work of Pisano and Pasti the massive style of Nicholas of Ferrara, or the curious mediævalism of Antonio Marescotto. Sperandio and Petreecinus, though one came from Mantua and the other from Florence, have both a certain resemblance in style to Marescotto.

The Venetian school comprises the names of Boldu, Gentile Bellini, Fra Antonio da Brescia (as he is generally called), Vittore Gambello, &c. Bellini's medal of Mahomet and Gambello's medals of the two Bellinis (Giovanni and Gentile), are among the finest productions of this age. Unfortunately Dr. Friedländer's plates do not do them justice. The medal of the Doge Andrea Gritti, by Zacchi, is a work less well known, but of scarcely inferior merit. The later school of Verona is represented first of all by Pomedello, concerning whom, after Mr. Greene's paper in a previous number, no more need be said.

The medal of Charles V., published by Mr. Greene, makes an eleventh to the ten medals of Pomedello described by Friedländer. With Pomedello in the Veronese series come Teperelli, Giulio della Torre, and G. F. Caroto. The school of Parma is represented by Giov. Fr. Enzola, whose large medals of Constantino Sforza are among the finest of this century. Friedländer thinks that the head on this medal serves to identify the kneeling figure in Melozzo da Forlì's picture of "Music" in the National Gallery.

Very interesting again is Friedländer's identification of the names Christoforus Hieremiæ and Meliolus as probably connoting the same individual. He is of the school of Mantua. The most meritorious artist among these Mantuans was Bartulus Talpa, whose works are not as well known as they should be. There is little likeness between him and Meliolus, while he approaches more nearly the manner of the Venetian medalists.

We now come to the large series of Florentine medalists. At the head of these stands Andrea Guazzalotti, also called Andrea da Prato, and by an error Andrea da Cremona. Among the medals attributed to him by Friedländer is that of Pius II. (Eneo Silvio), with a pelican on the reverse (cf. Museum Guide, No. 308, pl. iii.), and I think there can be little doubt that it is from his hand. This medal bears, however, an extremely close resemblance in style to that of Julia Astallia (Museum Guide, No. 70, pl. iii.), and it is a question whether this medal is not also by Guazzalotti. By Friedländer it is dubiously assigned to Bartulus Talpa, of Mantua, whose manner it does not seem to me to recall. Not to assign Julia's medal to Talpa would,

however, have this drawback. It would militate against the identification (otherwise very probable) of this Julia Astallia with a certain Julia mentioned by Matteo Bandinello, as having committed suicide after suffering dishonour from one of the servants of the Bishop of Mantua, and as having been commemorated on a monument raised by the Bishop. The history would agree well with the motto on the medal, "Unicum fortitudinis et pudicitiae exemplum."

A great number of Florentine medals have a certain family likeness, and form a remarkable series worthy of special study. But we have no time to dwell upon their points of interest. The series includes a number of unsigned medals, and among the rest those by the medalist whom Armand calls the "Médailleur à l'Espérance." All these pieces are distinguished by a certain massiveness or rudeness in their treatment. There is, however, another series of Florentine medals, especially those by Pollajuolo and Bertoldi, which are remarkable for their delicacy of handling and their low relief. Bertoldi seems to have formed his style directly upon the model of Donato. The medals assigned to Filippino Lippi are of great interest and beauty, but how far justly assigned to him must remain a matter of grave doubt.

The school of Bologna is represented in medallic art, as in painting, by one great name alone, that of Francesco Francia. Friedländer's monograph upon this medalist appears to be incomplete, at least in the part of the *Jahrbuch* which has come into our hands. He assigns some medals to Francia which have not previously been attributed, and withdraws other medals which have been generally given to him, without assigning sufficient reasons in either case. Moreover, he gives no description of the medals which are in his plate, nor does he say whether these comprise all the works of Francia. Lastly, in the second part of the third volume which has just come out, we have the medals and coins made by Caradosso.

Almost all, then, that remains to complete Friedländer's work is to treat of the medalists who worked in the south of France, that is to say, of Francesco Laurana and of Pietro da Milano. In this he has been anticipated by M. Heiss, in the same way that his study of Pisano anticipated that of Heiss. M. Heiss has hazarded the opinion that both Laurana and Pietro da Milano were no more than mechanical executors of the designs of René of Anjou, to whom these pieces should in reality be attributed. These productions are of great interest, and are not so well known in this country as the regular series of Italian medals. A cameo closely resembling Laurana's medal of Louis XII. was sold at the Fillon sale. It is rare to find any of

these pieces well cast ; but those from which M. Heiss has made his illustrations seem to be exceptionally bad in that respect. The most notable are the various medals of Louis XII., that of Jeanne de Laval, the wife of René, and of Triboulet, his dwarf, who is not the same person as the hero of " *Le Roi s'amuse.*"

C. F. KEARY.

MISCELLANEA.

ANGLO-SAXON SCEATTAS.—I shall be glad to hear from any reader of the Numismatic Chronicle who has information to impart upon the subject of the sceattas. The information specially desired is upon these two points: (1) Unpublished types ; (2) Circumstances under which the sceattas have been found. In publishing any information received in this way, I shall be careful to indicate the source from which I have received it.

C. F. KEARY.

BRITISH MUSEUM.

SHILLINGS OF GEORGE III.—Perhaps it has not been noticed that on the dotted shilling of 1787, there are several variations in the arms stamped on the reverse. I have found four such variations, which are as follows :—

No. 1. No semée of hearts on the field of Lüneburg. Six strings in the harp of Ireland.

No. 2. No semée of hearts, and seven strings.

No. 3. Semée of hearts, and six strings.

No. 4. Semée of hearts, and seven strings.

The reverse of the shilling of 1787, without the dot over the head, is of the type of No. 2.

E. MACKENZIE THOMPSON.

BRITISH MUSEUM,
Feb. 9, 1882.



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XII.

SAMOS AND SAMIAN COINS.

Σάμοι τὰ ἐς ἀθλητὰς καὶ ἐπὶ ναυμαχίας εἰσὶν Ἴώνων ἀριστοί.¹

INTRODUCTION.

SAMOS, the mightiest state in Greece in the days of Poly-crates, and a formidable rival of Athens even in those of Pericles, has scarcely of late years attracted among archæologists attention proportional to its ancient renown, though politically it has won much fame. The Samians were the first of Greeks in the war of independence to take up arms, and among the last to lay them down; and have even conquered from the Porte the coveted right of home-rule, forming a distinct principality. But until quite lately there were no persons in the island who were interested in Hellenic antiquities, and successive French and German visitors have left us a record of inscriptions intercepted by them on the way from ancient sites to the lime-kiln or the modern wall, of which inscriptions succeeding travellers could find no trace. It is to be hoped that the spirit of veneration for ancient Greek remains, which sinks deeper year by year into the minds of modern Hellenes, will have by this time stayed the destruction, and that a local museum will be formed, and increase. In fact, much that was most remarkable in ancient Samos still remains above

¹ Pausan., vi. 2, 9.

ground. The walls of Astypalæa, the ancient citadel of Samos, may still be traced throughout their circuit, and at certain points are still entire. And of the three wonders of the city,² the mole of the harbour, the aqueduct of Eupalinus, and the notable temple of Hera, remains still exist, though in ruins. The canal of Eupalinus was discovered and partly excavated during a short stay in the island by M. Guérin.³ Still more recently, excavations have been made on the site of the Heræum by M. Girard,⁴ who has drawn up a ground plan of the temple, though as the capital of the column which was still *in situ* in the days of Tournefort and Pococke has disappeared, he could give no fresh information as to the style in which it was built, which seems, in spite of the statement of Vitruvius,⁵ to have been a kind of primitive Ionic, combining some of the peculiarities of Doric with those of Ionic style.

To the historian only two localities in the island are of great interest. The first is the walled capital, the only town of any size existing in ancient times in Samos, where was the citadel, Astypalæa, the temples of the gods, and the harbour, the chief source of Samian wealth. The other is the site of the Heræum, on the shore of the sea a few miles outside the city walls. Between city and temple, as at Ephesus and most other great Greek cities, stretched a road frequented by pomps and processions, and bordered by graves of the ancestors and celebrities of the city.

The island, as Strabo remarks, stands high out of the sea, and is a mark to sailors far off. To those who approach

² Hdt., iii. 60.

³ Guérin, *Patmos et Samos*, 1856, a work which contains the best general account of the island in its present state.

⁴ *Bull. de Corresp. Hell.*, 1881.

⁵ vii. præf.

nearer, its precipitous sides seem bare and forbidding; and the earlier modern travellers credited it with an evil climate. This, however, must be unjust, for at all times it has been celebrated for the production of wine and oil, and neither vine nor olive flourish except under clement skies. In fact the inland valleys are very fruitful, if not quite to the extent implied in the proverb of Menander,⁶ who wrote at a time when the Athenians were passionately attached to Samos, *φέρει καὶ ὀρνίθων γάλα*. Æschylus calls the island *ἐλαιόφυτος*,⁷ and we are told that roses flowered there twice in the year. And of late years the ancient export of wine has been revived with every prospect of continuance and increase.

To those who study the coins of a Greek city some knowledge of its religious cults is a necessary preliminary. Coins contain more of religious antiquities than even of art or of history.

In later Greek times Cyprus was not more wholly given up to Aphrodite, or Delos to Apollo, than was Samos to Hera. The Heræum was one of the largest and richest temples of Greece, erected in very early Greek times, either by Rhæcus or by Rhæcus and Theodorus,⁸ and a monument of still immature Ionic style. There was in old times much dispute whether the cult of Hera were older at Samos or at Argos. The Argives maintained that the cult had been derived from their city by the Samians; but the latter, not to be outdone, pointed out the very spot, on the banks of their little stream, the Parthenius or Imbrasus, beneath a cluster of *agnus castus*, where the Queen of Olympus was born, deriving from the

⁶ Strabo, xiv. p. 438.

⁷ *Persæ*, 883.

⁸ Hdt., iii. 60; Pausan., viii. 14, 8; &c.

fact her local epithet of Parthenia. That the worship of Hera at Samos was very ancient we may well believe. That it was older than the Hellenic occupation of the island seems certain, in view of the extra-mural situation of the Heræum, and considering the peculiar character of the Samian goddess, who is clearly very different from the Hera of Homer and of Argos, and closely akin to the great feminine deities of the Asiatic mainland.

The form in which Hera appears on Samian coins of Imperial times, a form of which we shall have hereafter to speak in detail, bears a close resemblance to the well-known shape of the Ephesian Artemis. And although we are unable, perhaps through loss of historical records, to trace at Samos as at Ephesus the existence of a college of priests and a hieratic organization, yet we can scarcely doubt of their existence, at least in early times. It seems, indeed, to have been almost arbitrary what deity of the Hellenic Pantheon was identified by the Greek settlers in this or that city of Asia with the Asiatic goddess whom they so frequently found in possession of the spot, and whom they felt obliged to make their own under some name or other. At Ephesus and Perga the Greeks gave to the local goddess the name of Artemis, at Aphrodisias that of Aphrodite, at Hypæpa probably that of Persephone. And indeed the prevailing type of goddess in Asia Minor resembled in some respect each of these Hellenic cousins. Like Artemis, she was mistress of the moon, and rejoiced in wild and waste places; like Aphrodite, she was patroness of sexual desire; like Persephone, she ruled the springing of the crops, and represented the invigorating force of moisture in spring. That she should be called Hera at Samos is not strange. Like Hera, she was queenly and motherly; Hera also, like her, was the goddess of mar-

riages, and in some phases by no means unconnected with the moon.

Even in classical Greek times, when the Samian goddess was, alike by her island votaries and Greeks generally, regarded as the true Hera of the Greek Olympus, and when to her were transferred all the mythical stories of Homer and Hesiod and the mythographers, yet she still retained traces of Oriental origin, or at least a quite distinctive and peculiar character. She was emphatically the bride, the bride of Zeus, the patroness of marriages, of matrimony, and of child-birth. Her image was constantly covered with the nuptial veil, and her most frequent suppliants were virgins about to wed and wives who wished or expected to become mothers. Mystically she was connected with the life and growth of nature, and more especially with that moon which was the power of moisture, and which ruled the seasons of gestation.

But Hera, although the chief, was by no means the sole deity of the island. Next to her in importance stood, not as we might expect Zeus, but Apollo Pythius, whose veneration at Samos is mentioned in the Homeric hymn,⁹ as well as by Pausanias.¹⁰ Polycrates is said to have consecrated Rhenea to Apollo, and to have contemplated a magnificent festival in his honour. Artemis Καπροφάγος¹¹ was also venerated in the island, but this goddess was more potent in early than in later days. It was Samian settlers, as will be shown below, who founded in Crete a temple of Artemis Dictynna in the time of Polycrates. But later, Artemis, as was natural, tended more and more to become a faint reflex of the reigning deity.

⁹ *In Apollin.*, 41. ¹⁰ ii, 31.

¹¹ Hesych., s.v.

No Ionian city would be complete without a sanctuary of Poseidon. The Poseidion of Samos was situate on the cape of the same name,¹² and doubtless received full share of honour and of sacrifice from the people, Samos being one of the Ionian cities which sent representatives to the Temple of Poseidon, at the base of Mycale. Poseidon's son, Anceus, was celebrated in Samian legend. There were other cults in Samos, as to the foundation of which we have more precise information; that of Hermes *Χαριδότης* was founded by Leogoras; that of Dionysus *Κεχρηῶς* by Elpis, on his return from Libya;¹³ that of Zeus Eleutherius by Mæandrius, when tidings of the death of the cruel Polycrates reached the island. Several shrines were due to the piety of the Athenian settlers in Samos. Such was the temple of Aphrodite in the Marsh, erected by the Athenian courtesans who accompanied the army of Pericles when he besieged Samos, and who wrested from his victorious captains part of the booty of war. Such was the temple of Demeter, and that of Athene, of which a memorial still survives in the inscription,¹⁴ *Ὀρος τεμένεος Ἀθηνῶν Ἀθηνῶν μεδεούσης.*

Of the literary and artistic glories of Samos I must not speak; of Rhœcus and Theodorus, the archaic workers in bronze; of Pythagoras, one of the greatest of the Greeks, driven from home by the tyranny of Polycrates to seek wisdom in east and west; of Mandrocles, who built the bridge of Darius over the Bosphorus; of Timanthes, the great painter; of Asius the poet, and Duris the historian. Of more importance is it, from our point of view, to record the voyage of Colæus, who is said to have passed,

¹² Strabo, xiv. p. 637.

¹³ Below, under *Coin-types.*

¹⁴ *C. I. G.* No. 2246.

first of Greek mariners, between the Pillars of Heracles, and brought back from the shores of the Atlantic such wealth that he could dedicate, at a cost of six talents, the tenth of his profit, a huge krater in the temple of Hera. From such hardy voyages as this sprang the wealth of the Samians, as well as from the manufacture of pottery, for which the soil of their island was peculiarly fitted, and which they exported largely down to Roman times. Thus, without possessing large territory or great resources in corn and cattle, the island became prosperous and great, and but for the sudden rise of Athens might have established on the shores of Asia a maritime empire not less extensive than that controlled by Pericles himself.

PERIOD I.—To B.C. 494.

In approaching the history of Samos it is well that I should at once state the limits within which the present article must be confined. To narrate in detail the course of Samian affairs would be a task which would far transcend the limits of this paper. And it would be in some respects a superfluous toil, as there already exists in German a laborious history of the island by Panofka.¹⁵ More accessible is the fairly complete account of Samian history in Lacroix's *Iles de la Grèce*;¹⁶ and an English reader may find all the more stirring episodes of Samian history narrated in Grote, and in Smith's *Dictionaries of Biography and Geography*. I shall therefore content myself with indicating in the slightest manner the main episodes of Samian history. Only under the

¹⁵ Berlin, 1822.

¹⁶ *L'Univers Pittoresque*.

following circumstances shall I speak of them in any detail: either when the discovery of inscriptions has of recent years thrown a fresh light on any of the events of which history is made up, or when the arrangement of coins in this way or that must depend on the manner in which history is read.

The best account of mythical Samian history is that given by Pausanias,¹⁷ on the testimony of Asius, the Samian poet, son of Amphiptolemus. This writer relates that Phœnix became, by Perimeda, daughter of Oeneus, father of Astypalæa and Europa, of whom the former bore to Poseidon Ancæus, king of the Leleges. Ancæus wedded Samia, daughter of Mæander, and was father of Samos, eponymous hero of the island. These traditions, whether the invention of Asius or not, were certainly current in the island, for Ancæus, son of Poseidon, figures prominently on late coins. It will, however, be scarcely worth our while to examine how many grains of truth the tale may hold, whether the introduction of the name of Phœnix really implies traditions of a Phœnician colony, and whether there was actually identity of race between the people of Samos and those of the Mæander valley. The river Mæander was a great local divinity, who frequently appears on Ionian coins, and Mandro— is a not unfrequent beginning of Samian names. In the same way I shall not attempt to decide whether the cultus of Poseidon was introduced into the island by the Ionian colonists, or existed earlier. Pausanias goes on to say that the primitive inhabitants were not expelled by the Ionian colony which came under the leadership of Procles, but rather received the new comers into fellow-

¹⁷ vii. 4.

ship, as well, we may add, as into the rank of the servants of Hera. In the next generation the Ionian settlers of Ephesus, under their leader Androclus, made war on the Samians and their king Leogoras, alleging as the pretext that they aided the Carians in their opposition to the Hellenic colonists. The Samians were expelled from their island: part went to dwell at Samothrace, part, with Leogoras himself, established Anæa on the Ionian coast, whence returning after ten years they recovered their native island. Here, again, it may be doubted whether we are reading history: the flight to Anæa and return thence seem too closely to resemble the exile and return of the oligarchic and democratic factions which so frequently recur in the annals of the island. Yet, on the other hand, there are indications of a close and original connection between Ephesus and Samos. As we shall hereafter see, several of the types of Imperial times are common to both cities, and Androclus was certainly venerated at Samos as one of her founders. The reality of the colonization of Samothrace will be discussed later: in its favour there are some arguments, though scarcely of a convincing character. But whether there was real connection between the Asiatic and the Thracian Samos or not, it seems unlikely that any value is to be attached to the tradition of a connection of the Asiatic island with Cephallenia, which is in Homer called Same.¹⁸ Iamblichus,¹⁹ for instance, says that Ancæus founded the Cephallenian Same first, and afterwards, in consequence of an oracle, moved to Samos. But when we reflect that Samos probably means merely a lofty or conspicuous place, if connected with *σᾶμα* (*σῆμα*), we may readily believe that

¹⁸ *Odys.*, ix. 24, &c.

¹⁹ *Vit. Pythag.*, i. 2.

the three loftiest islands of the Levant, Cephallenia, Samos, and Samothrace, acquired their common early name independently. That they would soon, in consequence of identity of name, become woven in the webs of the same tradition can surprise no one who has studied the genesis of historical legend.

There is little in Samian history to demand attention between the time of Leogoras and that of Polycrates. Curtius makes note of the fact that Ameinocles of Corinth built triremes for Samos before the time of the Lelantian Wars, but it may be doubted whether this proves much. It is clear that in the seventh century B.C. Samos was a great naval power, as it was able to carry on war against the Megarians, in Thrace, for the protection of its colonies, such as Perinthus and other cities on that coast. On land it was by no means so powerful, waging war on equal terms with the Prienians for the possession of certain districts on the mainland, the right to which was constantly in dispute between Samos and Priene down to Roman times.

The tyranny of Polycrates brought Samos to its highest point of external prosperity. About B.C. 536²⁰ this unscrupulous and cruel man made himself sole master of the island. He defeated the Milesians and Lesbians, pillaged and conquered the neighbouring islands, and was a valued ally of Amasis, King of Egypt. But while formidable abroad he was still more so to his own subjects, a large body of whom, destined by him to death, escaped and implored the intervention of Sparta. The delightful narrative of Herodotus records the fortunes of the embassy, the result of which was a Spartan expedi-

²⁰ Grote, ch. xxxiii.

tion against Polycrates. But the good fortune of the tyrant carried him safely through this danger. He is said to have bought off the invaders with a quantity of coins, supposed to be of gold, but really of lead gilt. As, however, Herodotus²¹ calls this story a *μαραϊότερος λόγος*, it can scarcely be accepted as history. The Samian exiles sailed away, and Polycrates flourished, until he met his death at the hands of Orætes, falling the victim of a device very similar to that which he is said to have practised on the Lacedæmonians.

Of the expeditions of Polycrates one has left traces on the coins of Cyrene. At this period Arcesilaus III., King of the Cyrenaica, was expelled by his subjects because he would not keep the laws of Demonax of Mantinea.²² He fled to Samos, and there and in Rhodes levied an army, with which, returning, he recovered his throne. We can scarcely be mistaken in finding an allusion to this expedition in the coins²³ which bear on the one side the silphium of Cyrene and the lion's head of Samos, and on the other side the eagle's head of Ialysus; the last-mentioned type probably indicating the presence in the Samian army of Rhodians from Ialysus. Although Herodotus does not mention the participation of Polycrates in this expedition, yet clearly it could only take place with his consent.

On the death of Polycrates the Samians raised an altar to Zeus Eleutherius. But their liberty was of short duration; Mæandrius almost immediately secured the tyranny of the island. He was driven out by Syloson, brother of Polycrates, a friend of Darius Hystaspis, after

²¹ Hdt., iii. 56.

²² Hdt., iv. 162.

²³ Müller, *Num. de l'anc. Afrique*, vol. i. p. 18.

a severe conflict, in which the best blood of Samos was freely shed.²⁴ Indeed, so many of the inhabitants fell in civil war that Syloson found it necessary to replenish the population with colonists from Lemnos and Byzantium, and even with liberated slaves. It is noteworthy that great internal convulsions of this kind in Greek cities seldom leave any mark on the coin. Tyrants, aristocracies, and democracies succeed each other; the people are almost destroyed by external or internal violence, and their numbers are replenished by immigration, but monetary types and weight remain unchanged. The reason is to be found in the nature of coin-types, which are in origin religious, so that a change in them would be resented as an impiety, and avoided as an omen of evil.

The son of Syloson, *Æaces*, was tyrant of Samos at the time of the Ionian Revolt. He was a friend of Darius, and the aristocracy of the island was favourable to the Persians. Not so the democracy, which was intensely Hellenic in tendency. Hence frequent conflicts and bitter animosity. Aristagoras of Miletus landed on the island to expel *Æaces* and set up popular government. But there were two feelings in the Samian fleet. At the battle of Lade the majority of the Samian vessels, having come to terms with *Æaces*, who was in the Persian fleet, turned traitors;²⁵ only eleven ships remained faithful to the Ionian cause, their captains refusing to obey the order to retreat, and taking bold share in the battle. The names of these eleven trierarchs were by the Samians inscribed on a monument set up in the market-place, and still standing there in the time of Herodotus. But the disaster

²⁴ Hdt., iii. 149.

²⁵ Hdt., vi. 18.

of Lade was of course followed by the restoration of Ææces at Samos. Those of the popular party who had most cause to dread his anger did not await his return, but sailed away to Rhegium, in South Italy.

THE PRINCIPAL SAMIAN COIN-TYPES.

In the majority of cases we are at no loss, even for an instant, to determine the meaning and reference of the types on early Greek coins. No one hesitates to say that the owl at Athens belongs to the cultus of Athene, and represents her authority, or that the tripod at Croton is the symbol of Apollo. But there are many exceptions to this general rule, and none more striking than that of the Samian coinage. For we cannot be by any means certain of the meaning of the most usual types of the island, or tell to what deity they properly belong.

To begin with the lion's scalp. In very rare instances the lion appears on monuments as the symbol of the Hellenic Hera.²⁶ Thus on an unpublished early vase at Girgenti, in the scene of the Judgment of Paris, Hera is accompanied by a lion, and in a later red-figured vase-painting representing the same scene,²⁷ the goddess carries a lion on her hand. This circumstance is supposed by Welcker to refer to the promises made to Paris by Hera of sovereignty in Asia, and there seems reason in this, though we must also observe the appositeness of the line of Homer²⁸ quoted by Preller, in which Hera is herself called a lion—*ἐπεὶ σε λέοντα γυναιξὶν Ζεὺς θῆκεν καὶ ἔδωκε*

²⁶ Overbeck, *Kunstmyth.*, iii. 35.

²⁷ Gerhard, *Ant. Bildw.*, pl. 33, where the whole subject is discussed with references.

²⁸ Il. xxi. 483.

κατακτάμεν ἢν κ' ἐθέλησθα—where the reference no doubt is to Hera's functions in child-birth. We have too an account, on the authority of Tertullian,²⁹ of a statue of Hera at Argos beneath the feet of which was a lion's skin.

When, however, we turn from the Argive Hera to those Asiatic lunar and maternal deities with which the Samian Hera was certainly connected, we find the lion as a very usual accompaniment. In the worship of Cybele in Phrygia and Atergatis at Hierapolis the lion played an important part. The representations of Cybele as seated on a lion, or between two lions, are too common to need more detailed mention, while for the association of the lion with the goddess of Hierapolis I need but refer the reader to the learned paper of M. Six in the *Numismatic Chronicle* for 1878. There could thus be nothing extraordinary in interpreting a lion or a lion's head at Samos as one of the symbols of Hera. But it is noteworthy that what we have on our coins is not a lion's head of the ordinary sort, but the skin of a lion's head, in short a lion's scalp. When this skin is represented in profile it takes the form of a lion's head with mouth wide open, probably because an actual scalp in profile would be unsightly, but in no certain coin of Samos have we either a lion's head facing, or a lion's head in profile with the mouth shut. This fact seems to me important. A lion's scalp would naturally belong to Heracles; but we do not hear of a special cult of Heracles at Samos. We find, indeed, on late coins of the Samian colony of Perinthus a figure of Heracles with the inscription Ἰώνων τὸν κτίστην; but these are scarcely sufficient as a ground for supposing Heracles to have been one of the chief deities at Samos.

²⁹ *De Corona*, 7.

An altogether different way of accounting for the lion's scalp has been adopted by some writers, as Lacroix.³⁰ There was current at Samos a story of one Elpis, a merchant, who visited the coast of Libya. Once when he had landed there he was surprised by a huge lion who gaped upon him in a fear-inspiring manner. The text of Pliny, who tells the story,³¹ is very corrupt, but it runs, so far as can be made out, that this gaping was the result of some accident to the lion's teeth, to remove which he mutely begged the aid of Elpis. This being granted, the lion in gratitude supplied the merchant with venison during his stay in Africa. On his return to Samos he erected a temple to Dionysus, on whom in his first terror he had called; and this temple was said to be of Dionysus Κεχηνῶς, the Gaper, from the gaping of the lion's jaws. The story is without a date, and probably an invention; we should even doubt whether it established the existence of a temple of Dionysus Κεχηνῶς at Samos, but for the parallel occurrence of an Apollo Κεχηνῶς at Elis.³² Certainly it seems not impossible that the symbol of the lion's scalp may be connected with this peculiar form of Dionysus, especially if at Samos, as in some parts of Asia Minor, Dionysus was regarded as a sun-god, in which case he would in the island take the place of Heracles and adopt his symbols. We must leave the question unsettled in the hope that the discovery of inscriptions may hereafter solve the difficulty.

As it is uncertain to which deity belongs the lion's scalp, so it must remain doubtful with which is connected the other Samian type, the bull. That the type is really a

³⁰ *Iles de la Grèce*, p. 240.

³¹ viii. 16.

³² Leake, *s.v.* Samos.

bull and not a cow may be considered fairly certain, the thickness of the neck being a strong indication. The bull, however, never appears complete on Samian coins, but always his fore part only, with two legs bent as in swimming. Possibly he may stand for a river-god, as does the fore part of the man-headed bull at Gela, in Sicily. In this case his truncation would have a meaning, as we may see by comparing the coins of Pherae, where the fountain Hypereia issues as a half-horse from rocks, the remainder of the animal being hidden in the source. We have the type of a river-god recurring not unfrequently on Imperial coins of Samos, a river-god who may be sometimes Mæander, much venerated on the Ionian coast, but who is sometimes on Imperial coins termed Imbrasmus, the stream beside which Hera was said to have been born.

But it is also possible that the bull may belong to the cultus of Hera. I do not venture to pronounce for the soundness of the view that Hera *βοῶπις* was in early days represented with the head of a cow like the Egyptian Athor and Isis, but apart from that theory it can easily be shown that Hera was connected with oxen. The mountain by her Argive temple was called Eubœa. White cows were sacrificed to the goddess. And Io, who is in many ways her double, was consistently thought of by the Greeks as a heifer. A cow, however, is not a bull; and we ought perhaps to hesitate to say that the latter is a Heraic symbol. Indeed, the bull is more closely connected with Artemis than Hera. There was a temple of Artemis Tauropolos at Samos,³³ and the festivals held in honour of that goddess are not unknown in the history of the island. But in Samos, as in many parts of Asia,

³³ Stephanus Byzant., *s.v.* Ταυροπόλιον.

Hera and Artemis were not fully distinguished, both being alike called Chesia and Imbrasia, and both bearing many traces of oriental origin.

But with whatever name of Greek deities we connect lion and bull at Samos, there can be little doubt that the conjunction of the two here, as at Abdera in Thrace, Tarsus, Citium in Cyprus, and many other places, embodies one of the oldest ideas of oriental religion, the conflict of heat and of moisture, whence originate all life and growth.

Scarcely less usual than lion and bull on the coins of Samos is the forepart of a galley. Those used to the representations of Greek ships will, however, at once notice that the galley of Samos is of peculiar form. It has a long projecting beak which looks in profile like the snout of a boar. The end of it was no doubt sharpened to cut the waves and to split open hostile galleys, the top of it was vaulted like a duck's back to throw off heavy waves to right and left. No doubt all Greek galleys had a prow designed to act as a ram, but that at Samos is abnormally long, and the deck is very high and much protected; the whole vessel looks thoroughly sound and sea-going. The ancients tell us that Polycrates was the inventor of the Samian war-galley³⁴ (*Σάμανα*): that the people were proud of it is proved by the statement of Plutarch³⁵ that the Samians branded their Athenian captives with a galley, thus stamping them as state-property, while the Athenians on their part marked their captives with the Athenian owl. But it must be observed that from B.C. 490 onwards, the galley is a frequent type of the coins, which it could scarcely be unless some religious meaning

³⁴ Athenæus, 540 e.

³⁵ *Pericles*, 26.

attached to it. To what deity then was it sacred? One would naturally suppose that in an Ionian city it could scarcely be the symbol of any deity save Poseidon. And yet it seems more probable that at Samos sea-faring was under the patronage of Hera. To this opinion several circumstances point. A galley is frequently the reverse type of the coins, the obverse of which bears a head of Hera, and on some coins the peacock of Hera stands on the galley. It was in the temple of Hera that was stored the krater of Colæus and other records of long voyages; also votive prows themselves, as we may see from Pl. V., 1. In fact, Hera seems at Samos to have occupied the same position in regard to navigation as was occupied at Sidon by the similar Astarte.

The peacock appears on Samian coins as an adjunct or symbol on earlier, and as a type on later coins. As to the significance of this bird there is no doubt; peacocks were kept in the Heræum at Samos, and native writers³⁶ declared that the bird was autochthonous to the island, and thence exported to other regions. In Argive legends we find in primitive times a connection between Hera and peacocks which shows early influence of Samos on the Argive cultus. Frequently on late Samian coins the sceptre, which belongs to Hera as queen of the Olympian circle, occurs in conjunction with the peacock; and on a late coin we find the figure of a peacock with the inscription **HPHC** (Period IX.), which clearly marks the bird as belonging to the goddess.

On quite the latest autonomous pieces occur two types taken from sculpture, the figures of Hera and of Ancaeus.

³⁶ Menodotus, in Athenæus, xiv. p. 655.

It cannot reasonably be doubted, as Overbeck has shown,³⁷ that the archaic simulacrum, veiled, and wearing a lofty calathos on the head, which appears on Samian coins, represents the figure of the goddess by Smilis, which succeeded in the temple the primitive *σavis* or block, and remained as cultus-image even to the days of Pausanias.³⁸ The figure may seem rude compared with our notion of what Smilis ought to have produced; but the evidence is too overwhelming to allow of doubt in the identification. After all, the date of Smilis is very doubtful; and even if he were contemporary with Rhœcus and Theodorus, he may have been fettered in his design by some hieratic traditions. Overbeck well remarks that the series of coins from Hadrian to Valerian, which represent the statue full-face, are far more to be relied on as giving us an accurate copy of it, than the somewhat earlier series which represent it in profile. But the same writer is wrong in his statement that the objects hanging from the outspread hands of the statue are always wooden supports. They are quite certainly and clearly in many cases, if not all, woollen fillets hanging down and ending in a tassel; see Pl. V., 1—3, and compare the figure of the Ephesian Artemis in the *Chronicle* for 1880, Pl. IX. It is, however, possible that in the statue itself wooden copies of woollen fillets may have been used to support the hands, and that these were modified in the coin representations. It is evident from our coins, and seems implied in statements by Lactantius,³⁹ that the drapery of the goddess is not part of the image, but was placed on it, removed and renewed from time to time. It was

³⁷ *Kunstmyth.*, iii. p. 14.

³⁸ vii. 4, 5.

³⁹ *Inst.* i. 17.

arranged as was becoming to a bride, in accordance with the character locally given to Hera. At a late period the figure stands between peacocks, or is surmounted by sun and moon, in allusion to mystical eastern ideas.

The figure of Ancæus can scarcely be distinguished from that of his father Poseidon. He stands naked, holding trident and patera or dolphin. No doubt here too we have a copy of a celebrated statue.

In describing the coins of Period I., we begin with those in electrum; our weights are given in Troy grains.

ELECTRUM OF SAMOS.

PHENICIAN STANDARD.

1. *Obv.*—Forepart of bull, r., looking back.

Rev.—Incuse square of four compartments.

(B.M.) El. Wt. 217.

{Found at Samos—Borrell, *Num. Chron.*, vii.
72). Pl. I. 1.

2. *Obv.*—Lion's head, facing.

Rev.—Incuse square.

Brandis, p. 401 { (Waddington.) El. Wt. 71·8.
(Paris.) El. Wt. 72·7. Pl. I. 2.

3. *Obv.*—Lion's head, facing.

Rev.—Incuse oblong.

Brandis, p. 401 (Sestini.) El. Wt. 35·9.

4. *Obv.*—Lion's head, facing.

Rev.—Incuse square. (B.M.) El. Wt. 17·7. Pl. I. 3.
(Brought home by Mr. Newton in 1863.)

5. *Obv.*—Bull's head, r.

Rev.—Incuse square. (Whittall.) El. Wt. 3. Pl. I. 4.
(Found at Samos.)

It is unlikely that Samos, one of the richest and most commercial cities of Ionia, would remain without a coinage after the neighbouring cities had begun to mint. But unfortunately the numismatic types belonging to Samos

are very common in early times; the lion's head appearing on the coins of Lydia, Miletus, Cnidus, Mytilene, and many other cities, and the bull or bull's head on those of Lydia and Mytilene. It thus becomes a matter of impossibility to assign to Samos with certainty any electrum coins of the early period. The very early coin No. 5, and the stater No. 1, which belongs to a far later time,⁴⁰ have the best claim to be considered as Samian, as both were found on the island. The types of both are bovine. Nos. 2, 3, and 4 are thirds, sixths, and twelfths of the stater of Phœnician standard. Their type is also uniform, a lion's head facing, and their period is early. They may be with probability given to Samos, though Mytilene has almost as good a claim.

In his paper on electrum coins,⁴¹ Mr. Head conjecturally assigns to Samos several electrum coins which follow the Euboic standard, and are of the earliest period of minting.

ELECTRUM, PERHAPS OF SAMOS:

EUBOIC STANDARD.

6. *Obv.*—Lion's head, facing.
Rev.—Oblong and triangular incuses.
 (B.M.) El. Wt. 133·5.
 (Found at Priene; Head, *Num. Chron.*, 1875,
 p. 276, pl. ix. 4.)
7. *Obv.*—Lion's head, facing, very rude.
Rev.—Quadripartite incuse square.
 (Greenwell.) El. Wt. 125·6.
8. *Obv.*—Lion's head, facing (?).
Rev.—Incuse square. (B.M.) El. Wt. 66·2.
 (Found at Mytilene;—Borrell). *Num. Chron.*,
 1875, pl. ix. 5.

⁴⁰ Perhaps that of Polycrates, *B. M. Guide*, p. 4.

⁴¹ *Num. Chron.*, 1875, p. 276.

9. *Obv.*—Head of lioness, l. (?).

Rev.—Incuse square. (B.M.) El. Wt. 67·6.
(Found at Allah Shehr, in Lydia;—Borrell.)

As an explanation of the supposed use of the Euboic standard in Samos, Mr. Head remarks that “the intimate connection existing between the people of Samos and those of Eubœa, as being the two greatest maritime powers in Greece, cannot fail to have brought about an interchange of commodities which would have rendered it a matter of commercial policy to institute a similar coinage in the two islands.” Hence it is likely that the standard called Euboic was derived by Eubœa through Samos from Asia. This argument may carry some weight, but is not of course at all conclusive. I must add that the types of Nos. 8 and 9 are very obscure. I have searched the notes of Mr. Borrell, from whom the Museum purchased them, to ascertain where they were found; and have discovered that No. 8 was found at Mytilene, and 9 in Lydia, facts which are not indeed fatal to the Samian attribution, but certainly detract from its probability. Even No. 6, which was found on the mainland opposite Samos, was in a small hoard whereof the other pieces did not belong to Samos. Mr. Head’s theory therefore remains a theory.

ELECTRUM, NOT OF SAMOS,

BUT SOMETIMES ATTRIBUTED TO THE ISLAND.

1. *Obv.*—Bull’s head, l.

Rev.—Incuse square.
(Prok.-Osten, *Inedita*, 1854, pl. iv. 12.) El. Wt. 40.
(Allier de Hauteroche, pl. xvi. 9.)

Probably a Phocæan hecte, though the phoca does not

appear on the coin. Many of the Samian types appear on Phocæan hectæ; for instance, fore-part of bull swimming or looking back, lion's head, ram's head.

2. *Obv.*—Bull, r., looking, l.

Rev.—Incuse square. (Paris. Brandis, p. 401.) El. Wt. 10·1.

From its weight this coin would seem to be a Phocæan twenty-fourth. On inquiring for it at the Bibliothèque Nationale, I was told it could not be traced; probably therefore it is in some other Paris collection.

3. *Obv.*—Bull walking, r., with head lowered.

Rev.—Three incuses, with star-like ornament.

(Paris.) El. Wt. 216.

Published by M. Fr. Lenormant, *Monn. des Lagides*, pl. viii., 8; Brandis, p. 401. Almost certainly a coin of Lydia, the incuse being Lydian. Nor does the type of a *walking* bull belong properly to Samos.

There is a large and well-known class of hectæ of electrum of Phocæic standard, weighing about forty grains, which bear on one side an animal type in relief and on the other side another animal type incuse, together with a small incuse oblong. These, most numismatic writers have considered to be alliance coins, struck in concert by pairs of cities on the Asiatic coast. Brandis,⁴² in accord with earlier writers, gives the following varieties to alliances between Samos and other cities:—

Samos and Lesbos.

4. *Obv.*—Lion's head, or panther's head.

Rev.—Calf's head, incuse.

⁴² *Münzwesen*, pp. 260, 415.

Samos and Dardanus.

5. *Obv.*—Lion's head.
Rev.—Cock's head, incuse.

Samos and Erythræ.

6. *Obv.*—Forepart of horse.
Rev.—Lion's head, incuse.

Samos and Clazomenæ.

- . *Obv.*—Half a winged boar.
Rev.—Lion's head, incuse.

Samos and Cebrene.

8. *Obv.*—Ram's head.
Rev.—Calf's head, incuse.

Samos and Abydos.

9. *Obv.*—Gorgon's head.
Rev.—Panther's head, incuse.

Samos and uncertain town.

10. *Obv.*—Head of Heracles.
Rev.—Lion's head, incuse.

The ground of these attributions is of course the fact that on each coin the usual types of two cities are combined. And it must be confessed that the extant treaty,⁴³ which provides for the minting in common by Phocæa and Mytilene of coins of electrum, proves monetary alliances of this class to have existed in antiquity. Yet it is most unlikely that Samos was constantly taking fresh allies in her issues of coin, like a beauty in the ball-room who takes a new partner for a dance and then relinquishes him for a newer. And the only evidence to show that Samos had anything to do with the coins above

⁴³ Newton in *R. S. Lit. Trans.*, N.S. viii. p. 549.

cited is derived from their types, which are by no means distinctive. We have, on the other hand, positive evidence that many of them were struck in Lesbos, to which island the lion's head is as appropriate as to Samos, and the calf's head still more appropriate. The following four specimens may be given almost with certainty to Lesbos or Mytilene, as their inscriptions show :—

11. *Obv.*—**ΛΕ**. Ram's head ; below, cock.
Rev.—Lion's head, incuse. (Paris.) El. 38·8.
12. *Obv.*—**ΛΕ**. Panther's head, r.
Rev.—Calf's head, incuse. (Paris.) El. 40·2.
13. *Obv.*—**ΛΕ**. Lion's head, r.
Rev.—Calf's head, incuse. (B.M.) El. 38.
14. *Obv.*—**Μ**. Forepart of calf.
Rev.—Lion's head, r., incuse. (B.M.) El. 39·2.

And if these be given to Lesbos there arises a very strong presumption that all the pieces we have cited belong also to Lesbos. At all events the conjectural attribution to Samos breaks down, there being more evidence against it than in its favour.

Brandis⁴⁴ gives a list of early silver coins which also combine the types of two cities, and which he also supposes to record alliances in which the Samians took a part:—

Lion's head	R	Half a horse :—	Samos and Erythræ.
,,	R	Boar	,, Methymna.
,,	R	Half a winged boar	,, Clazomenæ.
,,	R	Sphinx	,, Chios.
,,	R	Ram's head	,, Cebrene.

⁴⁴ P. 261.

But here again the evidence in favour of such attribution is very slight. Brandis does not describe the coins in detail, but some of them seem to belong to quite other series than that of Samos. The coin with the half-horse is found at Rhodes, and may belong to Lindus; that with the sphinx may be of Perga. The pieces with the type of half a winged boar and those with ram's head come, as we shall hereafter see, into the regular Samian series.

It appears, then, that there is no sufficient evidence to prove that Samos issued either electrum or silver coins in early times in alliance with neighbouring cities.

Leake⁴⁵ remarks that there are certain electrum coins, of the class lately described, which bear as an adjunct to the obverse type a small peacock in the field, and that these are certainly to be given to Samos. Most numismatists are, however, now agreed that the creature called by Leake a peacock, is really a cock, in which case Dardanus is a more probable attribution than Samos. But it may be doubted whether either Samos or Dardanus can claim these coins, for we have already cited a specimen, No. 11, which bears the cock as adjunct, and yet is inscribed with the letters **Λ Ε**, and so must in all probability have been issued by a mint of the island of Lesbos. It is indeed not improbable that all electrum coins with an incuse type on the reverse are Lesbian; this peculiarity of fabric may have been the recognised sign of the Lesbian mint, just as the phoca in the field is the mint mark of Phocæa and the tunny of Cyzicus. This, however, is only a probable opinion, which must be hereafter either disproved or established by a more

⁴⁵ *Num. Hellen. Suppl.*, Asia, p. 91.

searching investigation. I am the more disposed to adopt it on learning that it is held by M. Six.

There is one other coin of this class which has been given, though without special reason, to Samos.

15. *Obv.*—Head of Pallas, r., in crested helmet.

Rev.—Lion's face, incuse. (B.M.) \mathcal{A} . Wt. 38.

Dr. Imhoof-Blumer possesses a similar coin, weight 38.6, inscribed on the obverse ΛE , showing that this piece also is Lesbian.

SILVER OF PERIOD I.

1. *Obv.*—Lion's scalp.

Rev.—Incuse square. (B.M.) \mathcal{A} . Wt. 39.1. Pl. I. 5.

2. *Obv.*—Head and neck of bull, r.

Rev.—Incuse square. (Whittall.) \mathcal{A} . Wt. 39. Pl. I. 6.

3. *Obv.*—Forepart of bull, r.

Rev.—Incuse square.

(Pinder and Friedländer, *Beiträge*, p. 71. pl. i. 1.)

\mathcal{A} . Wt. 25.

Re-struck on an early coin of Cnidus, part of the Cnidian forepart of a lion still visible: found at Elmalu, in Armenia.

4. *Obv.*—Bull's head, r.

Rev.—Incuse square. (Whittall.) \mathcal{A} . Wt. 9.

Variety of *obv.* Bull's head, l. (Whittall.) Wt. 9. Pl. I. 7.

The attribution of all of these coins to Samos is very doubtful. The type of No. 1, a lion's scalp with the jaws on both sides, looks Samian, though the type is also found in Lycia. But the weight does not follow the Samian standard. No. 3, on the other hand, might well be a hemidrachm, and No. 4 an obol of Samian weight.

The coins next to be described are certainly Samian, with the exception of No. 8, where again a doubt is suggested by the weight.

5. *Obv.*—Lion's scalp.

Rev.—Bull's head, r., in incuse square.

(B.M.) \mathcal{A} . Wt. 188·3 Pl. I. 8.

„ „ 200·2

„ „ 201·2

6. *Obv.*—Lion's scalp.

Rev.— $\Lambda\Sigma$. Bull's head, l., in incuse square.

(B.M.) \mathcal{A} . Wt. 183. Pl. I. 9.

7. *Obv.*—Forepart of bull, r.

Rev.—Lion's head, r., in incuse square.

(B.M.) \mathcal{A} . Wt. 101·2. Pl. I. 10.

8. *Obv.*—Head of bull, r.

Rev.—Lion's head, r., in incuse square.

(B.M.) \mathcal{A} . Wt. 12·5. Pl. I. 11.

9. *Obv.*—Lion's scalp.

Rev.—Head of bull, l., in incuse square.

(Imhoof.) \mathcal{A} . Wt. 14·8.

10. Types as last.

(Bunbury.) \mathcal{A} . Wt. 9.

11. *Obv.*—Lion's scalp.

Rev.—Head of bull, r., in incuse square.

(Imhoof.) \mathcal{A} . Wt. 15·8.

12. Types as last.

(Imhoof.) \mathcal{A} . Wt. 6·7. Pl. I. 12.

The following early silver coins are probably not of Samos, but are here added for fear their omission should be attributed to oversight:—

1. *Obv.*—Forepart of bull, r., swimming.

Rev.—Incuse square. (*Num. Chron.*, 1875, pl. ix. 6),

(B.M.) \mathcal{A} . Wt. 135.

2. *Obv.*—Lion's head, facing.
3. *Obv.*—Lion's head, with open mouth, r.
Rev.—Incuse square. (*Ibid.*, p. 277.)
 (B.M.) \mathcal{A} . Wt. 63·1.
Rev.—Incuse oblong; with smaller incuse beside it.
 (B.M.) \mathcal{A} . Wt. 30·8.
4. *Obv.*—Lion's head, facing.
Rev.—Incuse square, divided into four.
 (B.M.) \mathcal{A} . Wt. 9·5 to 8.

The types of these coins are not absolutely Samian. No. 1 is not of Samian style, and the lion's scalp on Nos. 2 and 4 lacks the flanking jaws which regularly accompany the device at Samos. All follow the Attic or Euboic standard, and this seems a reason against assigning them to the island, but by no means a conclusive one. Mr. Head is inclined ⁴⁶ to assign 1 and 2 to Samos, and remarks on the close connection which existed between Samos and Eubœa in early times as a reason why it is not unreasonable to expect the Euboic standard in Samos. No. 3 is in fabric closely like an electrum coin. Its attribution is quite doubtful. I have been unable to discover where 1, 2, 3 were found. Several specimens of 4 were brought home by Mr. Newton, which is in favour of their origin in Lesbos.

5. *Obv.*—Lion's head, facing.
Rev.—Two incuse oblongs. (De Luynes.) \mathcal{A} . Wt. 9.

This coin is given to Samos by Brandis.⁴⁷ The incuse of its reverse, however, reminds us rather of Rhodes than of Samos, and the type would suit the town of Lindus in that island.

⁴⁶ *Num. Chron.* 1875, p. 277.

⁴⁷ P. 467.

6. *Obv.*—Foreparts of two bulls butting at one another.

Rev.—Forepart of bull, l., in incuse square.

(B.M.) *AR.* Wt. 33·5.

Other specimens weigh from 33·8 to 28·2. One specimen has in the field of reverse **V X**, and a second has **X**. The coin with **V X** was attributed wrongly by Payne Knight⁴⁸ to Chytri, in Cyprus. Borrell, a far superior authority, gives these coins to Samos; but, perhaps, considering their weight and the fact that sometimes they are of base metal, Lesbos is a more probable attribution.

THE COLONIES OF SAMOS.

It is a fact, notable, though sometimes overlooked, that the permanence of coin types constituted a bond between Greek mother city and colony. The proof is as follows:—In the case of colonies founded before the mother city possessed a coinage, the colony, when it began to issue money, assumed new types, usually quite different from those of the metropolis, and for the most part belonging to a cultus local to the place where the colony was founded. In the case, on the other hand, of colonies founded by cities possessing an organized monetary system, it was usual for the colony to preserve alike the types and the monetary system of the metropolis. Thus types and weight of Corcyra, founded by Corinth about B.C. 700, are quite different from those of the metropolis, while Apollonia and Epidamnus, colonies of Corcyra founded at a later date, preserve a strictly Corcyrean character. The coins of Ephesus, founded by the Athenian Androclus in very early times, show no trace of Athenian influence; those

⁴⁸ P. 162, 1.

of Thurium, founded by Athenians in the time of Pericles, bear the head of Athene, and are of Attic weight. Instances might easily be indefinitely multiplied. This distinction holds also with coins of the Samian colonies, as we shall have shortly to show.

The earliest colonies of Samos of which mention is made are Samothrace and Anæa. The historical reality of the Samothracian colony might be disputed, especially as Strabo⁴⁹ says that the tradition of such a colony was invented by the Samians for the sake of the credit, *δόξης χάριν*. Antiphon is the authority for the story. Professor Conze, however, the best modern authority on Samothrace, thinks it probably true.⁵⁰ He suggests that if the people of Paros colonised Thasos—and this rests on good authority—a Samian occupation of the neighbouring Samothrace becomes not unlikely. Moreover, the oldest of the Samothracian temples lies outside the walls of the chief city in the north of the island, a fact which certainly seems to show that the city was built by supervening colonists from some Greek city or other, and Samos has the best claim. The coins of Samothrace bear types belonging to the cultus of Cybele, of Hermes, and of Pallas. The two former deities are local to the Thracian coast; Pallas probably shows Athenian influence. But all Samothracian coins are late, and on the principle above laid down we should not expect them to resemble the Samian, even if the island were occupied by Samian colonists.

Anæa was the chief town in the Samian *Peræa*, which extended along the Ionian shore between Mycale and the sea. In after-days this town was more than once occupied by a defeated and exiled Samian faction, notably

⁴⁹ P. 457.

⁵⁰ *Samothrace*, ii. 106.

by the aristocratic party, to whom most of the land on the continent probably belonged. The possession of Anæa and the neighbouring lands was to the Samians a continual source of trouble and of war with Priene and Miletus. But though Anæa and Samos were often bitterly hostile one to the other, Anæa never struck coins; or at least we know of none which we can attribute to the town.

Two great Greek cities of Cilicia, Nagidus and Celenderis, are said to have been colonies of Samos.⁵¹ From very early times these two cities kept up the issue of beautiful and well-executed coins, a sign alike of their wealth and of their different nationality from the races around them. The Cilicians were probably of Semitic race,⁵² and enjoyed a very ill reputation in antiquity. But Nagidus and Celenderis may, on the testimony of their coins—for scarcely anything else is known about them—be classed as purely Greek cities, civilised and art-loving, and possessed, no doubt, of the civic institutions which were the distinguishing mark of Greek cities everywhere. That the coins should have nothing in common with those of Samos, as regards types and weight, would be not unnatural if their foundation was, as is probable, very early. But in Cilicia itself there was brought to M. Waddington⁵³ a very remarkable silver piece, which may have been struck either at Celenderis or Nagidus. M. Waddington thus describes it:—

Obv.—Édifice en maçonnerie régulière, avec trois créneaux, surmontés chacun de trois petites pointes; dans chaque intervalle, entre les créneaux, il y a une pointe semblable.

⁵¹ Pomponius Mela, i. 13.

⁵² Hdt., vii. 91; and Rawlinson's comments.

⁵³ *Voyage en Asie Min.*, *Numismatique*, p. 146, pl. x. No. 7.

Rev.—Partie antérieure d'un bœuf agenouillé à droite, dans un carré creux peu profond. Poids: gr. 11·065 (170·8 grains).

The weight of this coin is that usual on the Cilician coast; the bull on the reverse is closely like the bull on Samian coins; the tower or city on the obverse is a type which we find not unfrequently on coins of Phœnicia, and on the Cilician coins attributed by the Duc de Luynes to Abd-Sohar.⁵⁴ Thus everything points to its issue by a Samian colony in Cilicia. M. Waddington conjecturally gives Nagidus a preferential claim. If it belong to that city it is an exceptional piece interrupting the regular coinage, and probably issued on some occasion when the people of Nagidus had occasion to appeal for aid to their mother city, an occasion similar to that on which the people of Syracuse struck with the types of Corinth.⁵⁵

As early as the seventh century we have mention of Perinthus as a Samian colony, and as a cause of quarrel between the Samians and the Megarian founders of Byzantium. In penetrating the Propontis the Samians only followed the example of their Milesian rivals, and, in fact, acted on the general belief of the Greeks, that the road to national wealth lay there. Besides Perinthus they founded in the same district Bisanthe and Heræum-Teichos, and in fact occupied and held the coast for a considerable distance. But from some cause or other the Samian colonies of the Propontis did not prosper like Cyzicus and Byzantium. They have left us coins only of a period later than that of Alexander the Great. In such

⁵⁴ De Luynes, *Satrapies*, pl. iv. 2, 3, 4. The attribution is disputed. Cf. *B. M. Guide*, p. 40, No. 40.

⁵⁵ Head, *Coinage of Syracuse*, p. 28.

circumstances we should not, of course, expect to be able to connect their types with those of Samos. Yet among the Imperial Series of Perinthus are a few coins which have reference to the origin of the city. Some of these bear the inscription, ΠΕΡΙΝΘΙΩΝ ΙΩΝΩΝ, or, as an epithet of Heracles, the phrase, ΤΟΝ ΚΤΙΣΤΗΝ ΙΩΝΩΝ (Pl. V. 13). Others bear as type the Samian Hera, who stands on the prow of a ship, to show that her worship reached Perinthus by sea (Pl. V. 14). Another bears the legend ΗΡΑ ΠΕΡΙΝΘΙΩΝ,⁵⁶ and a figure of the same goddess.

We now reach historical times, and have to speak of foundations of which the date can be approximately fixed. One of these was of the three cities of the island, of Amorgos, Ægiale, Minoa, and Arcesine, by a colony led by the Samian Simmias, four hundred and ninety years after the Trojan War.⁵⁷ The coins of Amorgos are all of a late period, and the types are taken from the Athenian coins or having reference to the medical deities who were especially worshipped in the island.

From the noted friendship which existed between Polycrates and the Egyptian King Amasis, and the fact that Syloson served with Cambyses in Egypt, one would naturally suppose a somewhat close relation between Samos and Egypt. We know of much which tends to confirm this view. The city of Naucratis, established in the Delta by the Greek friends of Amasis, had one quarter inhabited by Samians, and containing a temple of the Samian Hera.⁵⁸ Even inland the people of Samos gained a footing, establishing a colony in the Libyan desert,

⁵⁶ Fox, suppl. pl. No. 7, see below, Period IX.

⁵⁷ Suidas, s.v. Συμμίας.

⁵⁸ Hdt., ii. 179.

which they called the Fortunate Isle, *Μακάρων νῆσος*, seven days' journey from Thebes through the sand, a city identified with the modern El Khargeh, in the Great Oasis.⁵⁹ There are naturally no coins of this settlement, and none are known even of Naucratis. As regards Cyrene, not only did a Samian army restore Arcesilaus III. to the throne of that district,⁶⁰ but the Samian standard of weight was adopted by Cyrene and Barce,⁶¹ although rarely in use elsewhere, a circumstance which almost compels us to assume a close connection with Samos.

It was above stated that on the failure of the Spartan siege of Samos, in the time of Polycrates, the malcontents sailed away in despair. They betook themselves first to Siphnos, afterwards to Crete, where they occupied forcibly the city of Cydonia, expelling the Zacynthian colonists who were already in possession. Five years later they were in turn expelled by the Æginetans, who had an old quarrel with their race. Their stay at Cydonia was not without fruit however, for they founded there a temple of Dictynna,⁶² which afterwards became famous, as well as other temples. The phrase of Herodotus is very interesting: *τὰ ἱρὰ τὰ ἐν Κυδωνίῃ ἔόντα νῦν οὗτοί εἰσι οἱ ποιήσαντες καὶ τὸν τῆς Δικτύνης νηόν, ἔκτω δὲ ἔτεϊ Αἰγινήται αὐτοὺς ναυμαχίῃ νικήσαντες ἠνδραποδίσαντο.* The defeat of the Samians by the Æginetans, and even their reduction to slavery, did not in any way interfere with the perpetuity of the cults which they established at Cydonia; the victors inherited the gods of the vanquished, as they acquired their lands and their wives. On the later coins of Cydonia a frequent

⁵⁹ Hdt., iii. 26. Rawlinson's edit., ii. 426.

⁶⁰ Hdt., iv. 162.

⁶¹ Brandis, *Münzw.*, p. 124.

⁶² Hdt., iii. 59.

type is the head of the moon-goddess, whom we may reasonably call Dictynna. Why the Samians chose her rather than Hera for the honour of a temple we know not; it is, however, most probable that they found her already in possession of the site, and only religiously accepted her title to it. Stephanus of Byzantium says⁶³ that the Samians, probably those expelled from Cydonia, founded Dicæarchia in Campania, afterwards Puteoli; but this can scarcely be true, for not only have we the explicit statement of Herodotus that the Samians were not expelled, but reduced to slavery; but also we know, on good testimony,⁶⁴ that Dicæarchia was a Cumæan colony. It has been suggested by Mr. Millingen⁶⁵ that the lion's face, which is a frequent type on early coins of Gortyna in Crete, may have been adopted in consequence of the influence of Samian settlers in Crete. Of this, however, there is no proof, and the distance between Cydonia and Gortyna is considerable.

One Samian colony remains for mention which was founded in later times, and has, in accordance with our canon, left us an interesting numismatic record. When, after the suppression of the Ionian revolt in B.C. 494, the tyrant *Æaces* returned to Samos with Persian troops, the members of the democratic party, who had most to fear from his animosity, took sail and fled towards the West. They were invited by the Sicilian Greeks to settle at Calacte, but on their way, landing at the Italian Locri, they were persuaded by Anaxilaus, ruler of Rhegium, to accept his protection; and, in conjunction with him and his Messenian colonists of Rhegium, they made a piratical

⁶³ *s.v.* Ποντίολοι.

⁶⁴ Strabo, 245, &c.

⁶⁵ *Sylloge*, p. 61.

descent on the opposite Sicilian shore. They seized the Greek city of Zancle, slaying the men and seizing their houses with the women and children—no uncommon procedure in early Greek history. The Samians held Zancle for some time, until they were expelled by their former patron, Anaxilaus. There are difficulties in connection with this story of which I have already spoken in the *Numismatic Chronicle*.⁶⁶ But we find at the beginning of the fifth century both at Rhegium and at Zancle, of which the name was changed by Anaxilaus to Messana, coins of Sicilian weight which bear on one side the face of a lion and on the other the head of a calf, with the names of the respective cities; and these types are so closely similar to those usual in the Samian coinage, and so dissimilar from anything in use in Sicily and Magna Græcia, that we can scarcely hesitate to see in them traces of Samian influence. In Zancle we have a change of name and of monetary standard at the same time that the types change, indicating an entirely new departure at the city in consequence of the Samian conquest. In the circumstances it seems natural that into that city the conquerors should introduce coins nearly like those to which they were accustomed, only of the standard of weight now universal in Sicily. This reasoning, however, does not apply nearly so well to the introduction of Samian types at Rhegium, a city which the Samians did not conquer, but where they only dwelt for a time as guests, if indeed history is to be trusted.

It has been supposed of late that a fresh memorial of the Samian immigration is to be found in the coins described below (Pl. I., Nos. 17, 18), which bear on one

⁶⁶ 1876, p. 6.

side the scalp of a lion, on the other a ship's prow. M. Sambon has stated⁶⁷ that some tetradrachms of this class were found near Messina, in Sicily, in a hoard, together with coins of Messina and Rhegium of Samian types, four early coins of Acanthus, in Macedon, and some twenty archaic tetradrachms of Athens. In favour of their issue in Sicily is the weight (Attic); but the circumstance that the scalp rather than the head of a lion is depicted on them points rather to Samos than Messina. Whether, however, they issued from Asiatic or Sicilian mint, they may reasonably be given to the period about B.C. 490, and they would be likely coins for the Samian colonists to carry with them in their flight. Dr. von Sallet, by a hypothesis bold yet scarcely to be called rash, maintains that these coins were minted in Samos for the colonists on their departure. He further thinks that the composition of the hoard of coins above mentioned indicates the route taken by the emigrants, and that they probably called first at Acanthus and then at Athens on their way to Italy. I ought to add that Dr. Friedländer gives the coins to a later period.⁶⁸

PERIOD II.—B.C. 494—439.

Æaces was succeeded as tyrant of Samos by Theomestor, whom Xerxes set over the island as a reward for the bravery which he displayed at the battle of Salamis. He was ruler at the time of the battle of Mycale, to which great feat of arms the Samians, according to Herodotus,⁶⁹

⁶⁷ See Von Sallet's remarks in *Zeitschr. f. Numism.*, iii. 135; and V. 103.

⁶⁸ *Zeitschr. f. Numism.*, iv. 17.

⁶⁹ ix. 90.

contributed not a little. The Greek fleet, under Leotychides, was stationed at Delos, when it was by Samian messengers persuaded to cross over to the Asiatic mainland and attack the Persian fleet there, an expedition crowned with the most splendid success. And this victory was the beginning of an era of prosperity to the Samians. Their shipping was famed in many seas, and so great was their warlike power that they alone, with the Chians and Lesbians, became free and equal members of the Athenian confederacy, paying no tribute, but only furnishing a naval force. But this independence led to their downfall. In opposition to the Prienians, and even to the people of Miletus, who took the part of the Prienians, the Samians grasped and retained territory on the mainland under Mount Mycale. The worsted Milesians applied to Athens for redress, and it is said that they found in their countrywoman, Aspasia, an effective pleader of their cause in the eyes of Pericles, then all-powerful at Athens. But apart from such influences there was quite enough in the position and pretensions of Samos to alarm the jealousy of the Athenian democracy.⁷⁰ In B.C. 439 an expedition of forty ships was dispatched to the island, which established there a democratic form of government and carried off several hostages. But the hostages escaped,⁷¹ and now an open revolt against Athens took place. Pericles had to sail with a force of sixty triremes, and undertake a formal siege of the chief city, Samos. After a long and doubtful conflict the Athenians were victorious; the Samians had to raze their fortifications, to give up their war-ships, to furnish hostages, and to pay the

⁷⁰ Grote, ch. xlvii.

⁷¹ Thucyd., i. 114, 115.

cost of the war. Thenceforward we find Samos a constant ally of Athens, sending a contingent to Sicily and sharing all the Athenian ventures.

PERIOD III.—B.C. 439—394.

The period which followed the Athenian conquest of Samos was for the island a stirring time. At once it drifted into the midst of the stream of Greek politics. At first the Samians were faithful allies of Athens, and even after the reverse at Syracuse, when Chios revolted, Samos remained staunch. In all the events which preceded the battles of Ægospotami and Arginusæ, the history of Samos is the history of Greece. After the crowning victory of Lysander, and the surrender to him of Athens, the Athenians begged to be allowed to retain the supremacy of Samos, but the Spartan general refused in a bitter apophthegm which became a proverb :

Ὅς αὐτὸς αὐτὸν οὐκ ἔχει Σάμον θέλει.

But so great was the affection of the Samians for the Athenian alliance, that they could only be driven to give it up by the pressure of force. Lysander had to proceed to the island and besiege the chief city. He took it, and allowed the inhabitants to march out with one garment apiece ; after which he abolished the democracy and set up an oligarchy under Spartan control. The patricians thus restored to power set no limits to their adulation of their Laconian patron. They set up statues in his honour both in Samos and at Olympia, and even changed the name of the festival of their great goddess from Heræa to Lysandria. Pausanias,⁷² in mentioning the Olympian

⁷² vi. 3, 16.

statue, speaks with contempt of the Samians for having set up statues, within a few years, first to Alcibiades, next to Lysander, and then to Conon; but Panofka⁷³ with justice replies that the dedications, although all by Samians, were by no means by the same persons, but by the members of factions bitterly opposed one to the other. The history of Samos, like that of nearly all Greek cities, is a continuous record of faction-fights between aristocratic and democratic parties, and of the alternate victories of each. Thus, while the popular faction poured adulation on Alcibiades and Conon, the wealthy faction heaped honours on Lysander. If we forget facts like these in our reading of Greek history, we shall greatly misunderstand it. The settlement of the island by Lysander, however, did not long last; for Conon, after his great victory over the Lacedæmonians at Cnidus, in B.C. 394, at once sailed to the island, expelled the Lacedæmonian harmost, and set up once more a democracy under Athenian protection.

COINS OF PERIODS II., III.

The coins which may be assigned to the two periods under discussion are numerous, and their classification offers considerable difficulty. We are, however, assisted by valuable landmarks, and the task is by no means hopeless. To the beginning of Period II. must belong, if it be Samian, or even if it was issued by Samian colonists in Sicily, the varieties of our Nos. 1 and 2, coins of which we have already spoken.

1. *Obr.*—Lion's scalp.

Rev.—Forepart of galley, l., in circular incuse.

(B.M.) *Æ.* Wt. 267·2. Pi 1. 17.

⁷³ *Samos*, p. 73.

Other specimens:—

as above (*Zft. f. Num.* iii., pl. ii. 6.) Wt. 263.

in field, **A** (Paris.) Wt. 266.

in field, **B** (Wiczay); in Wiczay Catalogue given to Phaselis.

2. *Obv.*—Lion's scalp.

Rev.—Forepart of galley, l., in circular incuse.

(Imhoof.) \mathcal{R} . Wt. 17. Pl. I. 18.

And at the end of Period III. must be placed the coins issued by Samos as a member of the Cnidian symmachy, which will be described under Period IV. The series of coins thus limited on both sides is also, as we shall find, naturally divided in the middle. I attribute to Period II. a series of lumpish, carelessly struck pieces, with various symbols in the field.

3. *Obv.*—Lion's scalp.

Rev.—**SAMION**. Head and neck of bull, l.

(B.M.) \mathcal{R} . Wt. 196·8. Pl. I. 13.

4. *Obv.*—Lion's scalp.

Rev.—**ΣA**. Head and neck of bull, r.

(B.M.) \mathcal{R} . Wt. 204·4. Pl. I. 14.

Varieties of *rev.*—Various symbols in field, such as—crested helmet, astragalus, peacock, wheel, eye, amphora, acrostolium (inscr. **ΑΣ**) (all B.M.).

5. *Obv.*—Lion's scalp.

Rev.—**ΣA**. Head and neck of bull, r., and forepart of galley. (B.M.) \mathcal{R} . Wt. 199·4. Pl. I. 15.

Another. (Berlin.) Wt. 198. *Zeitschr. f. Num.* v. pl. ii. 6.

6. *Obv.*—Lion's scalp.

Rev.—**ΣA**. Head and neck of bull, r.; behind, olive-spray. (B.M.) \mathcal{R} . Wt. 202·7. Pl. I. 16.

At first this assignment of date may arouse a doubt, for these pieces are not marked by the presence of the incuse square, which we expect to find in Asiatic

coins of the fifth century. Their fabric is, however, almost exactly like that of the earliest coins of Athens, which also frequently are without the incuse, and is so rude and untrained as to point clearly to an early epoch. The symbols in the field may be compared with those which appear on the contemporary coins of Abdera,⁷⁴ in Thrace, of the early kings of Macedon, and in a few other series of early times. Their presence suggests, though it cannot be said to prove, that the monetary magistrates of Samos in the fifth century were men of importance. One or two of them, as the forepart of a galley and the peacock, make their appearance hereafter as types and not mere symbols. The usual inscription is **ΣΑ**, but in one case we have **ΣΑΜΙΟΝ**. This last word is not to be interpreted *Σαμίον*, for the **Ω** was in use in Ionic cities earlier than B.C. 500, but *Σάμιον* (*νόμισμα* ?); and we find parallel forms in this period elsewhere, *Κώιον* at Cos, and *Ἐφέσιον*⁷⁵ at Ephesus. The forms of the letters in the inscription we are discussing are almost exactly the same as those used in the inscription found at Olympia on the base of the statue of Euthymus,⁷⁶ which was dedicated about B.C. 470, and executed by Pythagoras of Rhegium, who is called in the inscription *Πυθαγόρας Σάμιος*. This coincidence tends to confirm my assignment of date.

This series of coins I conceive to have lasted down to the time of the Athenian conquest. No. 5 has an olive-branch in the field; and it is hardly rash to see in this adjunct the sign of Athenian conquest, the olive being the

⁷⁴ *Cat. Gr. Coins, Thrace, &c.*, pp. 65—8.

⁷⁵ *Coinage of Ephesus*, p. 20.

⁷⁶ *Arch. Zeitschr.*, xxxvi. p. 82; Roehl, *Inscr. Gr. Antiquiss.*, No. 388.

special symbol of Athene, and appearing regularly on the Athenian coins. Henceforth all Samian large silver coins bear this adjunct.

The Athenian conquest of Samos leaves its traces not only in the introduction of the olive-spray, but in the issue of coins of Attic weight, bearing usually the monogram \mathcal{R} or the letter \mathbf{A} , and a deep, strongly struck incuse square.

7. *Obv.*—Lion's scalp.

Rev.— $\Sigma\mathbf{AMI}$. Forepart of bull, r.; behind, olive-spray; ornament round bull's neck; below \mathcal{R} ; all in incuse square. (B.M.) \mathcal{R} . Wt. 260·3. Pl. II. 1.

Variety; on *rev.* prow in place of monogram.

(Waddington.) Wt. 262.

8. *Obv.*—Lion's scalp.

Rev.— $\Sigma\mathbf{AMI}$. Forepart of bull, r., all in incuse square. (B.M.) \mathcal{R} . Wt. 64·3. Pl. II. 2.
(Waddington.) Wt. 64.

Varieties of *rev.* :—

below \mathbf{A} and olive-spray. (Imhoof.) Wt. 65·6.
below olive-spray. (Imhoof.)

But these coins of Attic standard are at Samos so rare that their issue can have lasted but a short time. They are succeeded by a series of flatter and more carefully executed coins, with shallow incuse square, and symbols in field, all of which coins are marked with the olive-branch, probably the symbol of Athenian alliance or supremacy.

9. *Obv.*—Lion's scalp.

Rev.— $\Sigma\mathbf{A}$. Forepart of bull, r.; behind, olive spray; all in incuse square. (B.M.) \mathcal{R} . Wt. 202·2. Pl. II. 3.

This specimen is re-struck on a coin of Athens, part of which has been cut away to reduce the weight; on the reverse there are visible remains of the letters \mathbf{A} \odot and incuse square.

10. *Obv.*—Lion's scalp.

Rev.—As last, ornament on bull's shoulder.

(B.M.) \mathcal{A} . Wt. 203.

11. *Obv.*—Lion's scalp.

Rev.—As last, head of lioness in field.

(B.M.) \mathcal{A} . Wt. 203·5. Pl. II. 4.

12. *Obv.*—Lion's scalp.

Rev.—**ΕΡΙΒΑΤΙΟΣ**. Forepart of bull, r.; behind, olive-spray. (Paris.) \mathcal{A} . Wt. 195. Pl. II. 8.

This coin is twice-struck; above are traces of letters **BATI** retrograde.

13. *Obv.*—Lion's scalp.

Rev.—**ΣΑ**. Forepart of bull, r.; behind, olive-spray; below, **Γ**; all in incuse square.

(B.M.) \mathcal{A} . Wt. 197.

Varieties:—Other letters appear in the place of **Γ**, **Ε** (Pl. II. 5), **Η**, **Θ**, **Κ**, **Λ**, **Μ** (Pl. II. 6). (B.M.)

ϩ (Imhoof; cf. No. 1 above.)

≡ (Six.)

Ι, **Ν** (Mion. *Sup.*, vi. 407), **Σ** (Mionnet, *Ibid.* No. 135).

This **Σ**, however, may be **Μ** placed sideways. The reverse of the coins with letters **Γ** to **Θ** is in an incuse square, and of the coins with letters **Κ** to **≡** in an incuse circle, and of later fabric. (See Pl. II. 5, 6.)

14. *Obv.*—Lion's scalp.

Rev.—Head and neck of bull r., in circular incuse.

(B.M.) \mathcal{A} . Wt. 6·7. Pl. II. 7.

(B.M.) Wt. 7·5.

Several of these pieces require a brief discussion. No. 9 has already been published by Mr. Borrell,⁷⁷ who supposed it to combine the two legends **ΣΑ** and **ΑΘΕΝ**, and to bear testimony to a monetary convention between Samos

⁷⁷ *Num. Chron.*, vii. p. 74.

and Athens. M. Lenormant has gone farther,⁷⁸ misled by the careful Borrell, and interpreting the legends as **ΑΘΕΝΑίων ΣΑμωv**, has wished to see in the coin a piece of money issued by the Athenian fleet when in revolt at Samos against the authority of Athens, at the time when it recalled Alcibiades and placed him at its head in B.C. 412. But these theories turn out to be based on the incorrect supposition that the inscription **ΑΘΕΝ** (rather **ΑΘ**), belongs to the later striking; whereas it really belongs to the earlier. The coin is in fact an ordinary Athenian tetradrachm from which a piece has been cut to reduce it to Samian weight, and which has then been re-struck with Samian types, the inscription and traces of the incuse square of the previous striking still remaining. As to the period when this re-striking took place we are entirely ignorant; throughout Period III. the relations between Athens and Samos were close, and even in the absence of close relations it could not be surprising that one of the widely circulated coins of Athens should be used at the mint of any city of the Levant as a blank.

No. 12, in the French collection, is a quite exceptional piece. That it does not belong to the period after B.C. 394 is proved by the fact that its weight is regulated by the Samian and not the Rhodian standard. The inscription **ΕΡΙΒΑΤΙΟΣ** would seem to be made up of *ἐπί* and a magistrate's name (*Βάτις*) in the genitive. On contemporary coins of Abdera such forms are common, for instance, **ΕΡΙΝΕΣΤΙΟΣ**, **ΕΡΙΜΟΛΓΑΔΟΣ**, **ΕΡΙΦΙΤΤΑΛΟ**.⁷⁹ Batis then would be the eponymous Samian

⁷⁸ *La Monn. dans l'Antiq.*, ii. 60. I believe that M. Lenormant has given up this theory; which, however, I am obliged to mention, as otherwise his authority might give it currency.

⁷⁹ *Cat. Gr. Coins, Thrace*, pp. 67, 68.

magistrate of the year when the coin was issued; but his name is not mentioned by historians or in inscriptions. The set of coins under No. 13 form a regular series, each specimen having in the field one of the earlier letters of the Greek alphabet, from **B** to **Ξ**, or perhaps to **Σ**, this letter being hard to distinguish from **M**. It seems probable that they are the issues of successive years, from one to fourteen, **Ξ** being the fourteenth letter of the Ionian alphabet. They seem from their style to be the last coins issued before B.C. 394, in which case they will occupy the period B.C. 407—394. It should be observed that 407 was a glorious year in the Samian annals, as in it the Athenian fleet under command of Alcibiades sailed to Athens, there to establish a democratic government. The Samians may have reckoned that year as year 1, and dated their coins by it until the victory of Conon in 394; but this can scarcely be considered in itself probable, and the numismatic argument, being based on a series of conjectures, is not strong enough to rely on.

Hitherto I have spoken only of the staters of Periods II., III. The smaller coins differ entirely from them in type, and form an interesting series. We will take them *seriatim*.

Drachms.

15. *Obv.*—Forepart of winged boar, l.

Rev.—Lion's scalp, in incuse square.

(B.M.) \mathcal{A} . Wt. 55. Pl. II. 9.

Varieties:—obverse type, r.

(B.M.) 53. Pl. II. 10. Wts. 55—46·5 gr.

Hemi-drachms.

16. *Obv.*—Forepart of winged boar, r.

Rev.—Lion's head, r., in incuse square.

(B.M.) \mathcal{A} . Wt. 19·5.

Varieties:—*obv.* type, l. Wts. 21·8—19 grs.

17. *Obv.*—Forepart of winged boar, r.

Rev.—Lion's head, r.; above, olive-spray; all in incuse square. (B.M.) \mathcal{R} . Wt. 18·5. Pl. II. 12.
(B.M.) Wt. 19·2.

18. *Obv.*—Forepart of winged boar, r.

Rev.— ΣA . Lion's head, r., in incuse square.
(B.M.) \mathcal{R} . Wt. 18·6. Pl. II. 13.

Varieties of *rev.*—Inscription ΣA . Wts. 19·5—18·4.

19. *Obv.*—Forepart of winged boar, r.

Rev.— $A \geq$. Lion's head, r., in circular incuse.
(B.M.) \mathcal{R} . Wt. 19·6. Pl. II. 14.

Varieties of *rev.*—Inscription ΣA . Wts. 19·6—16·5.

20. *Obv.*—Forepart of winged boar, r.

Rev.— ΣA . Lion's head, r.; below, olive-spray; all in incuse square. (B.M.) \mathcal{R} . Wt. 19·5. Pl. II. 15.
(B.M.) Wt. 18·5.

That these pieces were minted at Samos is proved by the inscription ΣA and the olive-spray which occur on many of the smaller denomination. The olive-spray probably as a rule belongs to coins issued after B.C. 439, and the coins issued before that date are without it. But some coins without the olive-spray seem from their fabric to belong to the later time, so that we cannot draw a fixed line between the two periods.

The type of the half winged boar⁶⁰ has not before occurred in the Samian coinage. It is, on the other hand, usual in the coinage of Clazomenæ, whence many numismatists have supposed all this set of coins to be a memorial

⁶⁰ Not marine boar, as it is sometimes absurdly termed. The die-cutter wishing to represent both wings, has unfortunately made one of them look like a tail.

of a monetary alliance between Samos and Clazomenæ. But the existence of monetary alliances in early Greek days can only be admitted on strong evidence, and such is not in the present case forthcoming. On the contrary, the evidence seems to show that at this period of their history the Samians, for reasons unknown to us, chose to adopt a variety of types for their smaller coins, for every several denomination varied types, as we shall see, and adhered to this plan until at least B.C. 394. In our first and again in our fourth period, on the other hand, the small silver is of the same types as the large, or nearly so. To the subject of the weights of these various coins we shall presently return. The meaning of that oriental apparition, a winged boar, is almost as obscure as the cause of its sudden importation at this particular period from Clazomenæ. Ælian⁸¹ has a story of a winged boar which devastated the territory of the Clazomenians. This monster was celebrated, and gave a name to a part of the territory of Clazomenæ. Leake⁸² adds:—"It would seem that to a mischievous wild sow of uncommon swiftness of foot poetry had added wings. Possibly the oracle was consulted and declared the sow to be an emissary of Apollo or some other deity, who was to be appeased by sacrifices. To adopt the monster as a monetary type was a natural consequence." All this is possible, but just now such explanations are out of fashion, nor does this interpretation account for the curious fact that only half of the monster appears on coins. It is more reasonable to consider the type as of solar origin and meaning. Apollo, as sun-god, was the chief deity of Clazomenæ, and a winged boar might well be his emblem, as the boar is in Lycia a

⁸¹ *Hist. Anim.*, 12, 38. ⁸² *Num. Hell., Asiatic Greece*, p. 43.

solar symbol, and especially the half of a winged boar, which is in form nearly circular. The story of Ælian may have arisen from the prevalence of the type more easily than the type would arise from the story.

Tetrobols.

21. *Obv.*—Forepart of bull, l.

Rev.—Forepart of bull, l., in incuse square.

(B.M.) \mathcal{A} . Wt. 32·6. Pl. II. 11.

Variety :—types, r., (B.M.) Wt. 35·6.

Here we have no inscription, and the olive-branch is absent. We cannot therefore be at all sure that these pieces belong to Samos. Indeed, Mytilene, in the island of Lesbos, has quite as good a claim to them in the present state of knowledge as Samos. I attribute preferably to Lesbos, the coins with forepart of a bull on one side, and on the other two foreparts of bulls butting one at the other. See above, Period I.

Diobols.

22. *Obv.*—Head of lioness, r.

Rev.—Head of ram, r., in incuse square.

(B.M.) \mathcal{A} . Wt. 17·2. Pl. II. 16.

Variety :—type of *obr.*, l. Wts. 20—13·7.

23. *Obv.*—Head of lioness, l.

Rev.—Head of ram, r. (B.M.) \mathcal{A} . Wt. 13·5. Pl. II. 17.

Varieties :—Wts. 13·5—12·5.

24. *Obv.*—Head of lioness, l.

Rev.— Σ A. Head of ram, r.; below, olive-spray; all in incuse square. (B.M.) \mathcal{A} . Wt. 13·2. Pl. II. 18.

(Munich.) Wt. 16.

Obols.

25. *Obv.*—Forepart of galley, r.

Rev.— Σ A. Amphora. (B.M.) \mathcal{A} . Wt. 9·2. Pl. II. 19.

Varieties :—Wts. 9·2—8·2.

26. *Obv.*—Forepart of galley, r.

Rev.— ΣA . Amphora, beside it olive-spray.
(B.M.) \mathcal{A} . Wt. 11. Pl. II. 20.

Varieties:—Wts. 11—9·4.

Copper.

27. *Obv.*—Forepart of galley, r.

Rev.— ΣA . Amphora, all in olive-wreath.
(B.M.) \mathcal{A} . $\cdot 3$ inch. Pl. II. 21.

These diobols and obols are certainly Samian. Not only have we in many cases the inscription ΣA , and the olive-spray on pieces subsequent to the Athenian conquest, but the types also belong to Samos. We have already met the head of a lioness, a type which we can scarcely avoid connecting with Hera, as symbol on tetradrachms (No. 11, above); and the forepart of a galley both as symbol and type on tetradrachms. The ram's head is new. This may be taken from the coinage or the mythology of the Cephallenian Same, where it is prominent. We do not indeed know that there was any real ethnological or religious connection between the Cephallenian city and Samos, but even in the absence of closer bonds the mere identity of name might be quite sufficient to induce the Samians to borrow a well-known type from Cephallenia.

STANDARDS OF WEIGHT AT SAMOS.

As it is necessary to say something about the weights of the series of small coins just discussed, this seems the most suitable place for a brief exposition of Samian monetary standards for silver. As to the electrum we have already spoken.

Two or three times during early Samian history does the

Attic standard appear to have been for a short time adopted for silver coin. First of all, if Mr. Head's theory be accepted, at a very early period, for the earliest silver coins of Samos which have incuse reverses. Secondly, about B.C. 494, for the coins found in Sicily with a half galley as type, *Per. II.*, 1, 2. The tetradrachm of this class weighs nearly 270 grains. Thirdly, at about the time of the Periclean conquest, B.C. 439, for a series of tetradrachms and smaller coins, above, Nos. 7, 8.

All other coins of Samos issued during the sixth and fifth centuries are struck on a system known as the Samian. On this standard the tetradrachm weighs up to 204 grains (13.20 grammes); reckoning from which the drachm should weigh 51 grains (3.30 grammes), the tetrobol 34 grains, the triobol or hemi-drachm $25\frac{1}{2}$ grains, the diobol 17 grains, and the obol $8\frac{1}{2}$ grains. The origin of the system is not clear, but it seems almost certain that it must be a variety of the Phœnician or Græco-Asiatic weight system. It is stated by Brandis⁸³ that this standard is peculiar to Samos, and to the cities of the Cyrenaica which adopted it from Samos in the course of the fifth century. This, however, seems to be an exaggeration. It is true that electrum and early silver staters of Phœnician weight usually weigh rather 230 or 220 than 200 grains. But at some Ionian cities we find a lighter standard. At Ephesus,⁸⁴ before B.C. 415, the heaviest of the drachms weigh but 54 grains, and a tetradrachm 205. It would thus appear that the standard of Samos is not so exceptional as is usually supposed.

The weights above given are the normal or standard

⁸³ *Gewichtswesen*, p. 124.

⁸⁴ Head, *Coinage of Ephesus*.

weights which ought to be attained by the various denominations of coin on the Samian system. But a glance at the list of coins will show how far they deviate from these normal weights:—

Drachm ;	normal,	51 gr. ;	actual,	55·	—46·5	grs.
Tetrobol	„	84	„	35·6—32·6	„	
Triobol	„	25½	„	21·8—16·5	„	
Diobol	„	17	„	17·2—12·5	„	
Obol	„	8½	„	11	— 8·2	„

This, however, is no isolated occurrence, nor need it make us doubt as to the assignment of denominations. In striking small change the Greeks were by no means careful to adjust it to an exact weight; those who took and gave it in the markets looked far less to weight than to type, it being of course well known to all which pieces were meant to pass as drachms, which as obols, and so forth. The large silver, minted for external trade, had to be adjusted to scale with accuracy; but the small silver which passed only locally was not under the same necessity. Even at Athens, where the mintage of the coins was unusually careful, we find considerable differences in the weights of small pieces of the same age and the same denomination.

PERIOD IV.—B.C. 394—365.

It would seem that at first the news of Conon's victory was received with rejoicing in Samos, and the democracy, re-established by his arms, hastened to set up a statue of the victor in the Temple of Hera. Next followed an alliance of anti-Laconian tendency with the cities of Rhodes, Cnidus, and Ephesus, an alliance the testimony to the existence of which is almost entirely numismatic,

and has been clearly set forth by M. Waddington.⁸⁵ It is generally known that the cities which joined this alliance issued didrachms which seem to follow the Persian monetary standard, bearing on one side the type of young Heracles strangling the serpents and the inscription ΣΥΝμαχικόν, and on the other side their own legend and type. The piece of this class issued from the Samian mint was the following:—

1. *Obv.*—ΣΥΝ. Young Heracles, r., strangling two serpents, round his chest, crepundia.

Rev.—ΣΑ. Lion's scalp. (B.M.) Ɱ. Wt. 178·2. Pl. III. 1.
(Lord Ashburnham.) Ɱ. Wt. 177·1.
(Waddington.) Ɱ. Wt. 172·8.

A similar coin at Paris, weighing 263 grains, is, in the opinion of M. Waddington, of doubtful authenticity. It is re-struck on a tetradrachm of Athens, whether in ancient or modern times.

But Samos, as well as the other members of this league, Rhodes and Cnidus, was very unstable in the anti-Laconian sentiment, and within a few years again appears to be following the fortunes of Sparta, and giving shelter to her ships. And from this time dates the beginning of great calamities for the Samians. Handed over to Persian rule by the disgraceful peace of Antalcidas in B.C. 387, the island was considered fair game by the roving Athenian admirals Chabrias and Iphicrates, who landed and carried away much spoil. Timotheus, being dispatched at the instance of Isocrates with 8,000 men to detach Samos from Persia, made still more grievous ravages, and finally captured the capital itself. This completed the ruin of the

⁸⁵ *Rev. Numism.*, 1863, p. 223. Cf. Head, *Coinage of Ephesus*, p. 25.

Samians. The Athenian general occupied the whole island and treated it with all the severity which the ancients displayed towards conquered foes. The unfortunate inhabitants were made prisoners of war, collected, and in the end entirely expelled from their island, and their lands were divided among Athenian *cleruchi*.

The silver coins of this period are easily distinguished from those of an earlier time. The incuse of their reverse is shallower and their fabric later in style. They are minted on a different monetary standard, and they bear in the field the name of a magistrate in the nominative case. The copper pieces, however, are without magistrates' names.

2. *Obv.*—Lion's scalp.

Rev.—ΣΑ. Forepart of bull, r., fillet round shoulder ;
behind, olive-spray, above, ΠΡΩ.
(B.M.) *R.* Wt. 237·5. Pl. III. 2.

Other names of magistrates, &c.—

ΗΓΗΣΙΑΝΑΣ, ΗΓΗΣΙΑΝΑΣ^(A), ΗΓΗΣΙ (B.M.)
ΛΗΣΙΑΝΑΣ^(A), (Allier de Hauteroche, &c.). This
coin seems to me, in the specimens I have seen,
false ; but perhaps an ancient forgery.

ΛΕΩΣ ^(A) , ΠΥΘΑΓΟΡΗΣ	and bee.	(Imhoof.)
—ΡΝΕΙΟΣ		(Munich.)
ΑΡΙΣΤΗ		(Whittall.)
ΛΟΧΙΤΗΣ	and bee	(Fox.)
ΠΡΩΤΗΣ		(Bunbury.)
ΑΜΦΙ, ΗΠΙΟΣ, ΦΡΑΣΤΩΡ		(Waddington.)
ΠΥΘΑΓΟΡΗΣ		(Paris.)

Weights 237·5 to 224.

3. *Obv.*—Lion's scalp.

Rev.—As last. Above, ΕΓΙΚΡΑΤΗΣ
ΑΧΕΛΩΙΟ
(B.M.) *R.* Wt. 233·4. Pl. III. 3.

Other names of magistrates :—

ΔΗΜΗΤΡΙΟΣ
ΑΝΤΙΑ (Imhoof.), Wt. 234·5.

That these tetradrachms are rightly assigned to the present period may be easily shown. The incuse square appears on some of them, not on others, and M. Waddington⁸⁶ has well shown that at the beginning of the fourth century the incuse square was disappearing from Asiatic coins. They follow a fresh standard—tetradrachm, 240 grains; drachm, 60 grains—a standard called Rhodian because in use at Rhodes from the foundation of the city in B.C. 408, and soon after that time usual in cities on the north and east shores of the Ægean. M. Waddington⁸⁷ states that his Samian tetradrachm, inscribed **ΗΠΙΟΣ**, was found in a hoard together with a tetradrachm of Cos, —type bearded head of Hercules, legend **ΚΩΙΟΝ ΓΡΕΨΙ**,—and a coin of Miletus with the inscription **ΕΚΑ**, which is reasonably supposed to have been struck by the Carian King Hecatomnus, or at all events to belong to his time, early in the fourth century. The pieces with patronymics as well as names of magistrates seem to be the latest of the class.

The only names which we can trace elsewhere are those of *Πυθαγόρης* and *Ἡγησιάνναξ*, which appear on contemporary coins of Ephesus, of the period B.C. 387 to 301. But it is scarcely to be supposed that the same men can have held office both in Ephesus and Samos. We must therefore regard the coincidence as probably fortuitous. It may perhaps excite surprise that patronymics like *Δημήτριος* *Ἄντια* and *Ἐπικράτης* *Ἀχελώιο* should appear on coins at so early a period. They are not usual until the next century. Yet the very termination of the form *Ἀχελώιο* shows its early date, since **Ο** for **ΟΥ** disappears in Asia Minor in the middle of the fourth century before our

⁸⁶ *Mél. de Numism.*, p. 15.

⁸⁷ *l.c.*

era, in the time of Pixodarus, King of Caria, whose name is written on coins sometimes Πιξωδάρον and sometimes Πιξωδάρο. That of Mausolus, at an earlier period, is always written Μανσώλλο.

4. *Obv.*—Lion's scalp.

Rev.—ΣΑ. Forepart of bull, r.; in front, olive-spray.
(Paris.) Ἀ. Wt. 56.

5. *Obv.*—Lion's scalp.

Rev.—ΣΑ. Forepart of bull, r., fillet round shoulder; in field ΗΓΗΣΙ(Α); on flank of bull Η.
(B.M.) Ἀ. Wt. 59. Pl. III. 4.

Other names of magistrates: ΑΜΦΙ Ι. (Paris.) Wt. 59·4.

6. *Obv.*—Lion's scalp.

Rev.—ΣΑ. Forepart of bull, r.; above ΛΟΧ.
(B.M.) Ἀ. Wt. 26. Pl. III. 5.

Other names of magistrates:—

ΑΡΙΣΤΗΙΔΑ(Α).	(B.M.) Wt. 28·2.
ΛΕΡΤΙ[ΝΗΣ].	(Leake.)
ΗΓΗΣΙΑ, ΗΓΗΣΙ(Α).	(Imhoof.)
ΛΟΧΙΤΗΣ, ΑΡΤΙΓΟΥΣ.	(Waddington.)

7. *Obv.*—Lion's scalp.

Rev.—ΣΑ. Forepart of galley within olive-wreath.
(Fox.) Ἀ. Wt. 32·5.

8. *Obv.*—Lion's scalp.

Rev.—ΣΑ. Forepart of galley, r.
(B.M.) Ἀ. Wt. 16·2. Pl. III. 6.

Varieties: Wts. 16·2—14·5. In field of *rev.* Δ.
(Allier de Hauteroche, pl. xvi. 14.)

9. *Obv.*—Head of Hera, l.

Rev.—ΣΑ. Lion's scalp.
(De Luynes.) Ἀ. Wt. 12·6. Pl. III. 7.

10. *Obv.*—Head of Hera, r., wears stephane.
Rev.—ΣΑ. Lion's scalp. (B.M.) Æ. .6. Pl. III. 8.
11. *Obv.*—Head of Hera, l., wears stephane.
Rev.—Lion's scalp. (B.M.) Æ. .55. Pl. III. 9.
12. *Obv.*—Head of Hera, l., wears stephane.
Rev.—ΣΑ. Lion's scalp. (B.M.) Æ. .45. Pl. III. 10.

The last three are specimens of a large class of coins, of which some are inscribed, some uninscribed, and which have many varieties of head. All are of a good style of art. In almost all parts of Greece copper coinage begins early in the fourth century.

PERIOD V.—B.C. 365—322.

Until lately it remained doubtful what was the extent of the expulsion of the inhabitants of Samos and the re-peopling from Athens by the agency of Timotheus. Thus Grote⁸⁸ speaks of the re-peopling as doubtless only partial; and most writers suppose that it was rather a faction which was expelled than the population of Samos. But it may now be considered certain that this was not the case. The first batch of *cleruchi*, sent about B.C. 365, who seem to have amounted in number to two thousand, may have expelled a faction only, or may have occupied only the city, not the territory of Samos. But subsequent detachments were sent in B.C. 361 and 352, and in the end the Samians were entirely driven out. This is implied in the statements of ancient writers—for instance, in the account by Diodorus⁸⁹ of the restoration of the

⁸⁸ Ch. lxxix. (foot-note). See C. Curtius, *Inscripfen und Stud. zur Gesch. von Samos*, pp. 6—17.

⁸⁹ xviii. 18, 9.

Samians to their country by Perdiccas, after an exile of forty-three years—*κατήγαγεν αὐτοὺς εἰς τὴν πατρίδα, πεφευγότας ἕτη τρισὶ πλείω τῶν τετταράκοντα*. It is also distinctly stated in a fragment of Craterus—*Ἀττικοὶ γὰρ μεταπεμφθέντες εἰς Σάμον κάκει κατοικήσαντες τοὺς ἐγχωρίους ἐξέωσαν*. It is implied in the language of Demades,⁹⁰ when he called Samos the sewer of Athens—*ἀπῶρυξ τῆς πόλεως*. But it is still more conclusively implied in a long inscription from Samos, which reveals to us a complete Athenian organization of the island, with Archons and Treasurers, Prytanes and Proëdri, and a system of recording the treasures of the Heræum as rigorous as that in use at the Parthenon at home. From this same inscription we learn that all the Athenian tribes took part in the settlement of the island. In fact, from B.C. 365 to 322 Samos was an Athenian suburb and the outlet for the superfluous population of the city. Meantime the Samians were wandering in Asia, and trying, for a time in vain, to obtain recognition of their rights from the powerful enemies of Athens. Philip of Macedon did not disturb the Athenian possessors. But when Alexander,⁹¹ then at the height of his power, ordered Nicanor to proclaim at the Olympic festival of B.C. 324 a decree that all the exiles from Greek cities should be restored to their homes, the Athenians at once interpreted the intention of the King as referring to Samos, and received the decree with anger. The death of Alexander prevented him from taking steps to carry out his plan, and the outbreak of the Lamian War occupied his generals for a time too fully to leave them time to carry out their master's designs. But in B.C. 322 Perdiccas

⁹⁰ Sauppe, *Or. Att.*, ii. 315.

⁹¹ Diodorus, xviii. 8. Grote, ch. xciv.

took the matter in hand, restored the Samian exiles to their country, and cast out their Athenian supplanters, either partially or wholly.

Did Athenian colonies, when sent to occupy conquered lands, issue coins? This question has been more than once raised. Dr. U. Köhler has discussed it *à propos* of Lemnos, Imbros, and Salamis.⁹² His verdict is that the copper coins of those islands which have come down to us were issued, not by the Athenian colonists, but by tribute-paying Athenian subjects, native inhabitants who, after Athenian conquest, preserved the right of coinage as remains of their earlier autonomy. Mr. Head, in arranging the coins of Eubœa, finds that the coinage of each city comes to an abrupt termination on the Athenian conquest and planting of that city. The same appears to be the case at Ægina. The early coinage of the island in silver and copper with incuse reverse abruptly ceases at the time of the Athenian conquest in B.C. 431. The copper coins of Ægina which reappear at a much later time may have been issued by the old inhabitants restored to their homes by Lysander, or at some later period of defection from Athens.

It would, then, seem that when a country was planted by the Athenians, the new colony did not issue coins, but contented itself with using those of Athens. The mines of Laurium gave the Athenians a plentiful supply of silver, and it seems to have been part of their policy to spread their coins in all parts of the Levant. They are still found on all eastern shores of the Mediterranean in numbers.

Certainly an examination of the coins of Samos tends to give fresh support to this theory. We have no money

⁹² *Mittheil. d. Deut. A. I. in Athen.*, iv. 263.

which we can reasonably give to this island at the period of Athenian settlement. Between the coins which we give to Period IV. and those which we assign to Period VI. there is a distinct break in style. This is, at first sight, evident in regard to the silver, and a close examination will show that it also holds of the copper. We have already adduced reasons to show that the coins assigned to Period IV. are not, in any case, later than the middle of the fourth century; those to be described under Period VI. certainly cannot be earlier than the last quarter of that century.

PERIOD VI.—B.C. 322—205.

Of the restoration of the Samian exiles in B.C. 322 we possess an interesting record in a series of decrees⁹³ passed immediately on their return in honour of various wealthy and benevolent persons who had been kind to them during their banishment from Samos. These inscriptions show, in the first place, that the decree of Perdiccas did not remain a mere intention, but was carried out practically. This was not the case with a subsequent decree which affected Samos. In B.C. 319 King Philip III., or rather Polysperchon, the regent, in his name, issued an order restoring to the Athenians⁹⁴ all their possessions, among them the island of Samos; "since our father Philip left it in their hands," as the young king puts it. But in those days might was right. The Samians had already occupied city and land, and neither Polysperchon nor the Athenians were prepared at the moment to expel them. In the second place, the inscriptions show how

⁹³ Collected in the work of C. Curtius, already quoted.

⁹⁴ Diod., xviii. 56, 7. Cf. Droysen, ii. 213.

wide and complete had been the dispersion of the unfortunate Samians. The persons to whom they accord citizenship, in return for favours shown them during their exile, are Gorgus and Minneo of Iasus, Demarchus of Lycia, Diocles of Gela in Sicily, Cæes and Leontiscus of Ephesus, and Metrodorus of Sidon. It thus seems that they were dispersed over all coasts, and had to find a home wherever charity or kinship would offer one. That the decrees belong to the period now under discussion is evident, partly from their subject-matter, and partly from their epigraphy, and finally, from a phrase in that in honour of Gorgus and Minneo. Gorgus was an officer of Alexander the Great, who is declared to have urged his master on all occasions to restore the Samians, and who, when the great decree of Alexander appeared, presented him with a crown on their behalf.

The period B.C. 322—205 was for the Samians one of autonomy with occasional dependence upon one or other of the principal Hellenistic kings. Thus we learn from Polybius⁹⁵ that Samos was a station of the fleet of Ptolemy Philopator and of his minister, Sosibius, and the island remained in Egyptian hands until the death of the King in B.C. 205, or 204, according to the manner of reckoning.

But to the people of the island perhaps the most important series of events which took place at this period was the great litigation with the people of Priene for the possession of certain territories on the mainland. These lands had always been a matter of contention between the two states, and had been the cause, in the middle of the fifth century, of the war with Miletus, and that with Athens, which ended in the expedition of Pericles. Ac-

⁹⁵ v. 35, 11.

ording to the explanation of M. Waddington⁹⁶ these territories consisted of four parts—Batinetus, Carium, Dryussa, and a fort, *φρούριον*. In our present period the respective claims to Batinetus were submitted to Lysimachus, who gave an award, which was engraved on the wall of a Samian temple.⁹⁷ It is still preserved, but unfortunately is much mutilated, and its tenor is not clear. Soon, however, we find the Samians claiming the other districts. This claim seems first to have been referred to Antiochus II. of Syria, and afterwards to the Rhodians. The Rhodians decided unhesitatingly in favour of Priene, and this decision seems to have been upheld in a further appeal to Ptolemy, King of Egypt. This must be either Ptolemy Euergetes or Philopator, kings who reigned from B.C. 247 to 205. If Philopator was the umpire the appeal was probably made before he became possessed of the island of Samos. But the Samians could not let the matter rest there. When Manlius came over to regulate the affairs of Asia in B.C. 188 they found means to induce him to revise in their favour the Rhodian verdict. The Prienians, however, appealed to Rome, and the Senate upheld the Rhodian decision, on the sole ground that it was the verdict of judges agreed to by both disputants. After this we find traces in inscriptions of a commission of Romans, assisted by experts from both sides, who are occupied in tracing a boundary between Samian and Prienian lands. Inscriptions recording all these transactions were found in the temple of Athene at Priene, and are now in the British Museum.

The coins of our period at Samos are numerous. The

⁹⁶ Lebas and Waddington, vol. iii. p. 74. Cf. Hicks, *Greek Hist. Inscr.*, p. 261.

⁹⁷ *C. I. G.*, 2254.

silver pieces are didrachms of the Rhodian standard, which had by this time fallen considerably, so that they scarcely exceed in weight 100 grains. In style and fabric as well as weight, and in the character of their epigraphy, they closely resemble the contemporary Ephesian coins⁹⁸ of the period B.C. 258—202. Many names of magistrates occur on them; but it is a curious fact that we do not find the same name on silver and on copper coins, with two exceptions, Battus and Hermodicus. This Battus may probably be the same man who, shortly after the return of the Samians from exile, proposed a decree conferring the citizenship on Metrodorus of Sidon.⁹⁹ Another name which occurs on the copper coin is that of Theomnestus, and this magistrate may be the same Theomnestus who is mentioned as Prytanis of Samos in the inscription¹⁰⁰ which gives the Rhodian award.

1. *Obv.*—Lion's scalp.

Rev.—ΣΑ. Forepart of bull, r.; in front, olive-spray;
above ΛΕΟΝΤΙΣΚΟΣ.

(B.M.) Ἀ. Wt. 104. Pl. III. 11.

Other names of magistrates:—

ΕΡΙΓΕΝΗΣ, ΕΡΜΟΔΙΚΟΣ.	(B.M.)
ΒΑΤΤΟΣ, ΜΗΤΡΟΦΩΝ.	(Hunter.)
ΒΑΤΤΟΣ with Ω, ΠΕΙΣΙΣΤΡΑΤΟΣ.	(Paris.)
ΑΛΕΞΗΣ, ΜΕΛΑΝ	(Waddington.)
Α]ΣΚΛΗΡΙΑΔΗ	(Whittall.)
ΝΑΝΙΣΚΟΣ. (Mion. <i>Sup.</i> , vi. 408.)	ΤΑΥΡΕΑΣ.
Wt. 104.—97.	(Mion. iii. 281.)

Magistrate's name:—

ΑΙΓΥΡΤΟΣ. (Waddington.) Ἀ. Wt. 49·7.

⁹⁸ Head, *Coinage of Ephesus*, p. 51.

⁹⁹ *C. I. G.*, 2256.

¹⁰⁰ Lebas and Waddington, No. 189. The name wrongly read as Theodorus in *C. I. G.*, 2905, E.

2. *Obv.*—Lion's scalp.

Rev.—**ΣΑ**. Forepart of bull, r. ; above, **ΑΣΚΛΗΓΙΑ**
in shallow incuse.

(Whittall.) \mathcal{A} . Wt. 25. Pl. III. 12.

3. *Rev.*—**ΣΑ**. Forepart of bull, r. ; above, **ΗΡΟΔΟΤΟΣ**,
behind trident ; all in shallow incuse.

(Paris.) \mathcal{A} . Wt. 24·4. Pl. III. 13.

Magistrate's name ; **ΒΑΤΤΟΣ**. (Waddington.) Wt. 21·4.

4. *Obv.*—Head of Hera, r.

Rev.—Lion's scalp, below, **ΓΑΡΙΣ**.

(B.M.) \mathcal{A} . ·75. Pl. III. 14.

5. *Obv.*—Head of Hera, l.

Rev.—Lion's scalp, below **ΠΕΛΥΣΙΟΣ**.

(B.M.) \mathcal{A} . ·6. Pl. III. 15.

6. *Obv.*—Head of Hera facing.

Rev.—Lion's scalp, below **ΣΙΜΟΣ**.

(B.M.) \mathcal{A} . ·4. Pl. III. 16.

Other names of magistrates on coins of the same class as the
last three :—

ΜΙΚΙΩΝ, ΒΑΤΤΟΣ, Θ]ΕΟΚΛΗ. (B.M.)
ΦΙΛΤΗΣ, ΘΕΟΜΝΗΣΤ, ΑΡΙΣΤΟΜΑ. (Imhoof.)
ΑΡΣ, ΣΤΡΑΤΩ. (Thomas, p. 277.)
ΕΚΑΤΑΙΟΣ. (Mion., iii. p. 282.)
ΕΥΒΟΥΛΟΣ, ΕΝΝΑΙΟΣ, ΧΑΡΗΜ (Waddington.)

7. *Obv.*—Head of Hera, r.

Rev.—**ΣΑ**. Forepart of galley, l. ; below, **ΦΙΛΟΞΕΝ**

(Imhoof.) \mathcal{A} . ·5.

Other names of magistrates :— ? **ΤΙ]ΜΟΚΛΗΣ.** (Imhoof.)

8. *Obv.*—Head of Hera, r. or l.

Rev.—**ΣΑ**. Forepart of galley, r. ; below, **ΘΕΟΔΩΡ[ΟΣ.**

(Imhoof.) \mathcal{A} . ·5. Pl. III. 17.

Other names :—

... ΒΙΛΛΑΣ, ΜΗΤΡΟΔΩΡ[, ΣΩΤΑΣ,	
ΑΛΥΡΗΤΟΣ.	(Waddington.)
ΙΕΡΩΝ.	(B.M.)
ΕΡΜΟ	(Berlin.)

9. *Obv.*—Head of Hera, facing.

Rev.—ΣΑ. Forepart of galley, l.; below, ΠΑΓΡΩΝ.
(Imhoof.) Æ. .55. Pl. III. 18.

Other names of magistrates :—

ΑΡΙΣΤΟΜ[, ΘΕΟΜΝΗ[, ΘΕΟΔΩΡΟΣ,	
ΣΙΜΟΣ, ΤΙΜΟΚΡΙ	(Imhoof.)
ΒΑΤΤΟΣ, ΦΙΛΩΤΑΣ ?	(Mion., iii. p. 282.)
ΚΑΥΣΙΟΣ.	(Leake, p. 38.)
ΘΕΟΚΛΗΣ.	(Paris.)
ΚΛΕΙΤΟΦΩΝ.	(Waddington.)
ΕΚΑΤ	(Berlin.)

10. *Obv.*—Round buckler.

Rev.—Π]ΑΡΙΣ. Lion's scalp.
(Imhoof.) Æ. .6. Pl. III. 19.

PERIOD VII.—B.C. 205—129.

On the death of Ptolemy Philopator in B.C. 205, Philip V. of Macedon and Antiochus of Syria formed a plan for dividing his possessions, in pursuance of which Philip seized on Samos. After the victory of Flamininus and the Romans over Macedon, this island, like the other Greek States which had been held in unwilling subjection by the Macedonian king, became free. But either this freedom was very incomplete, or else freedom was not to the taste of the Samians, for when the Rhodian Pausimachus was defeated by Antiochus III. of Syria, Samos quitted the Roman alliance and joined the Syrian king.¹⁰¹

¹⁰¹ Appian, *Syr.*, 25.

After the battle of Magnesia in B.C. 190, which is one of the great landmarks of the history of Asia Minor, the whole of Ionia was made over by the Romans to their ally Eumenes, King of Pergamon. We should conjecture that the following years were peaceful and prosperous for the Samians. Samos, however, was so unfortunate as to become one of the possessions of Aristonicus. When Attalus bequeathed his possessions to the Romans in B.C. 133, this young man, who was of the regal stock of Pergamon, broke into open revolt, and, supported by an army of mercenaries, captured several cities, and for some time defied the power of Rome. Samos did not join him voluntarily, but of force. On the defeat and execution of Aristonicus in B.C. 129, the island was added by the Romans to the province of Asia, and lost its freedom.

The Samian silver coins which can be assigned to this period fall into two classes. First we have pieces of fairly good execution, of which the specimen in the British Museum weighs 69·7 grains (4·51 grammes).

1. *Obv.*—Lion's scalp.

Rev.—**ΣΑΜΙΩΝ**. Forepart of bull, r.; in front, olive-spray; below, trident and forepart of galley.
(B.M.) *Æ*. Wt. 69·7. Pl. IV. 2.

With this goes the following:—

2. *Obv.*—Lion's scalp.

Rev.—**ΣΑΜΙΩΝ**. Forepart of bull, r.; in front, olive-spray; behind, trident. (Imhoof.) *Æ*. Wt. 14.

No. 1 is either an Attic drachm, like the contemporary coins of Ephesus¹⁰² and Aradus of B.C. 202—133, in

¹⁰² Head, *Coinage of Ephesus*, p. 57.

which case it would be minted rather above the standard weight, or else a drachm of the debased Persian standard which was still in use at Miletus. Probably contemporary, or nearly so, was the issue at Samos of coins bearing the types of Alexander the Great, and of the weight of Attic tetradrachms (of Müller's Class VI.) with the mint-mark of Samos, the well-known prow, in the field.

3. *Obv.*—Head of young Heracles, r., in lion's skin.

Rev.—ΑΛΕΞΑΝΔΡΟΥ. Zeus Aëtophorus seated, l.; in field, l., prow of ship, l., and the letter B.
(B.M.) \mathcal{A} . Wt. 259·8. Pl. IV. 1.

Whether the Pergamene kings ever used Samos as one of the mints of their regal money is doubtful. I have not found any of these coins with Samian symbols in the field. Later on in the period we have coins of a different standard and very inferior style, the head of the lion being of a *door-knocker* character. The metal is also debased.

4. *Obv.*—Lion's scalp.

Rev.—ΣΑΜΙΩΝ. Forepart of bull, r.; below, ear of corn, crater, and peacock.
(B.M.) \mathcal{A} . Wt. 46·4. Pl. IV. 3.

Other symbols on *reverse*:—

Ear of corn and crater. (B.M.)
 " " " and \mathcal{A} (B.M.) Pl. IV. 4.
 " " " " bunch of grapes. (B.M.)
 " " pedum. (B.M.)
 " " trident. (Leake.)
 " crater, star, and Δ . (Paris.)
 " trident and prow. (Paris.)
 Weights 46·5 to 43.

5. *Obv.*—Head of Hera, r., wearing stephane.

Rev.—ΣΑΜΙΩΝ. Forepart of galley, l.; to r., \mathcal{A} ; above, trident. (Whittall.) \mathcal{A} . Wt. 26.

6. *Obv.*—As last.

Rev.—ΣΑΜΙΩΝ. Forepart of galley, l.; on it, peacock;
above, trident. (B.M.) Æ. Wt. 22·7. Pl. IV. 5.

7. *Obv.*—Head of Hera, r., wearing stephane.

Rev.—ΣΑΜΙΩΝ. Forepart of galley, r. (Paris.) Æ.
Wt. 9·8. Pl. IV. 6.

The standard of these pieces is clearly the same as was in use for the Cistophoric coins, at this period extensively circulating in Asia. Mr. Head conjectures (Coinage of Ephesus, p. 61) the Cistophori to have been first issued under Eumenes II. of Pergamon about B.C. 160, and there can be little doubt that he is approximately right. The issue of Cistophori took place in the chief cities of the Pergamene dominions, but not, so far as we know, at Samos. As an island Samos would be less closely dependent on the rulers of Pergamon, and retain at least some show of autonomy; it need not, therefore, surprise us to find that in her case the autonomous types persist, the weight of the coins only being altered to suit that of the pieces current on the mainland. No. 4 is a Cistophoric drachm, Nos. 5 and 6 hemidrachms, No. 7 perhaps an obol, but more probably a trihemiobol, the fourth of a drachm.

The copper of our period is determined by its style; the head of Hera which it bears nearly resembling that on the silver coins already described. Like the silver it bears no names of magistrates.

8. *Obv.*—Head of Hera, r., wearing stephane.

Rev.—ΣΑΜΙΩΝ. Lion's scalp.
(B.M.) Æ. ·6. Pl. IV. 7.

9. Another. (B.M.) Æ. ·45. Pl. IV. 8.

10. *Obv.*—Head of Hera, facing.

Rev.—ΣΑΜΙΩΝ. Forepart of galley, r.
(B.M.) Æ. ·5. Pl. IV. 9.

11. *Obv.*—Forepart of galley, l.
Rev.—ΣΑΜΙΩΝ. Forepart of galley, r.
 (B.M.) Æ. '35. Pl. IV. 10.
12. *Obv.*—Forepart of galley, r.
Rev.—ΣΑΜΙΩΝ. Forepart of galley, l.; below, trident.
 (B.M.) Æ. '4.
- Variety of reverse: on galley, peacock. (B.M.)
13. *Obv.*—Lion's scalp.
Rev.—ΣΑΜΙΩΝ. Forepart of bull, r.; below, mono-
 grams. (Imhoof.) Æ. '8. Pl. IV. 11.

PERIOD VIII.—B.C. 129—20.

During the whole of this time, with one brief interval, Samos was a part of the Roman province of Asia. The interval occurred in the time of Mithradates the Great, King of Pontus. He gained possession of all Ionia, and of Samos also; and for accepting his liberation the people of Samos probably paid dearly, like the other cities of Asia, which were sternly punished by the victorious Sulla. But apart from Roman punishment the Samians at this time suffered severely enough. The island was captured by pirates,¹⁰³ at that time very strong on the Cilician coast, and the temple of Hera despoiled and destroyed. What had escaped the pirates became the prey of Verres, who robbed the island mercilessly. Q. Cicero, when Proconsul in B.C. 61—58, did what he could to revive the prosperity of the place, not only by dispensing even-handed justice, but by favouring commerce and aiding the city to pay its debts.

There are certainly no silver coins of Samos of the

¹⁰³ Appian, *Bell. Mithr.* lxxiii.

period, and apparently no copper. It is, however, possible that some of the money described under the next head may have been issued at this time, for the proconsular coinage of Asia was of silver; and it is not unlikely that the various cities may have been allowed, as so usually in Imperial times, to issue their own civic copper.

PERIOD IX.—IMPERIAL TIMES.

Augustus having occasion in B.C. 21 and 20 to spend the winter at Samos, restored freedom to the state, a freedom which lasted, at least in name, till the time of Vespasian, A.D. 70.¹⁰⁴ But it does not seem that the freedom was very real, as we possess coins with the imperial effigy from the time of Augustus downwards, by the side of the autonomous coins, which is not the case at Athens, Termessus, and other cities which enjoyed more solid privileges. It is asserted by Ross that Samos received a Roman colony in the time of Vespasian. The authority for this statement is an inscription, which this writer publishes,¹⁰⁵ containing a list of Samian *νεωπολίαι* of Roman times. This document is remarkably confused; the list does not follow the regular order of time, but the *νεωπολίαι* of various years are jotted down in it apparently without sequence or method. These years are usually reckoned from the battle of Actium, which is termed the victory of Cæsar or of Augustus. Dating from this era the magistrates are of years 7, 18, 29, 30,

¹⁰⁴ Eusebius, *Chron.*, under Ol. CXC. and CCXII.

¹⁰⁵ *Inscr. Ined.* No. 191.

41, 42, 44, and 103. There is, however, intercalated in smaller characters a list of *νεωποῖαι* of the fourth year of the colony, **Λ. Δ. ΤΗΣ ΚΟΛΩΝΙΑΣ**. Supposing the year thus indicated to follow close on those already set down, the last of which (103) corresponds to A.D. 72, it would look as if there were a Roman colony established in Samos about the beginning of the reign of Vespasian, when, as already stated, the freedom of Samos was taken away. But there is not in history or in numismatics a particle of evidence to confirm this isolated inscription. The coins of the cities which become Roman colonies are inscribed in the Latin character, and are always of a different appearance from those of cities which remain Greek. We can scarcely consider that the inscription of Ross is strong enough evidence to overthrow that which stands on the other side. After A.D. 70 Samos became a Roman province.

We begin our list of the coins of Samos of Roman times with the earliest, which may, as already stated, belong to the eighth period:—

1. *Obv.*—Forepart of bull, r.

Rev.—**ΣΑΜΙΩΝ**. Forepart of galley, r.
(B.M.) Æ. ·55. Pl. IV. 12.

2. *Obv.*—Head of Hera, r., wearing stephane.

Rev.—**ΣΑΜΙΩΝ**. Peacock, r.; behind, Δ^c .
(B.M.) Æ. ·65. Pl. IV. 13.

The following seem from the style of their reverses, which are closely like those of the coins of Augustus and his immediate successors, to belong to the early Imperial period:—

3. *Obv.*—Head of Hera, r.

Rev.—**ΣΑΜΙΩΝ**. Peacock, r., standing on caduceus, sceptre over shoulder; in field, $\overline{\Lambda}$ Δ .
(B.M.) Æ. .75. Pl. IV. 14.

Varieties: in field, $\overline{\Sigma}$ $\overline{\Psi}$, $\overline{\Sigma}$ $\overline{\Lambda}$, &c. (B.M.)

4. *Obv.*—**HPH**. Hera Samia, r.

Rev.—Peacock, r. (Imhoof.) Æ. .6.

5. *Obv.*—**HPHC**. Peacock, r.; in front, plant.

Rev.—**CΑΜΙΩΝ**. Ancæus, standing l., clad in chlamys, holds trident. (B.M.) Æ. .55. Pl. IV. 15.

Variety of *obv.*—**HPHC**. Peacock, l. (B.M.)

6. *Obv.*—**ΑΝΚΑΙΟC** (*sic*). Ancæus, l., holds trident.

Rev.—**CΑΜΙΩΝ**. Peacock, r., sceptre over shoulder.
(B.M.) Æ. .65. Pl. IV. 16.

7. *Obv.*—As last, inscription obscure.

Rev.—**ΑC**. Two prows of galleys.
XII. (B.M.) Æ. .6. Wt. 48.5. Pl. IV. 17.

8. *Obv.*—Forepart of galley, l.

Rev.—**ΣΑΜΙΩΝ**. Hera Samia, r.
(B.M.) Æ. .7. Pl. IV. 18.

Variety of *obv.*—Forepart of galley, r. (B.M.)

The inscription on No. 7 **ΑC XII** is remarkable. We may compare the **XII** on a Syracusan coin, which also has a Greek legend. We should naturally interpret it as meaning twelve asses or assaria. But there is no precedent for an assarion of so light weight. The single assarion of Chios, even at a far later period, weighs more than the present coin. And the Roman *as* of this time is even heavier. Nor can the inscription well stand for one-twelfth of an *as*, the Roman *uncia*, for this

would give an as of the excessive weight of 582 grains. Perhaps the true reading of the inscription may be **XPI** or **XH**, but we must wait for other specimens before deciding.

The following pieces must be given, in view of style and epigraphy, to a still later period, that of the family of Severus and their successors. It is by no means rare to find cities thus issuing autonomous coins in the Imperial period, and contemporaneously with other pieces bearing the heads of Emperors.

9. *Obv.*—Forepart of galley, r., in wreath.

Rev.—**CAMIWN**. Nymph, r., holding vessel.
(B.M.) Æ. .55. Pl. IV. 19.

This type recurs in the Imperial series, when it is discussed. See below, No. 17.

10. *Obv.*—Forepart of galley, r.

Rev.—**CAMIΩN**. Bearded Term facing.
(B.M.) Æ. .55. Pl. IV. 20.

The scale of these coins is so small that we cannot determine whether the Term is of Dionysiac character or not.

IMPERIAL COINS.

The Imperial coins of Samos stretch in a continuous series from Augustus to Gallienus. Many of them are interesting as illustrating local myths. We will disregard, in discussing them, exact order of date, and arrange them in groups as may be convenient. Those which recur in several different reigns in precisely similar form may be presumed to be copies of statues in the Heræum or else-

where in Samos. We are thus offered a considerable field of archæological research, into which, however, we can scarcely enter, for the limits of our space compel us to dismiss the Imperial coins more rapidly than we could wish. Our first group is connected with the Hera of Samos and her worship. As to the figure of the goddess herself we have already spoken:¹⁰⁶ the only important innovation which marks her form in Imperial times is that she sometimes grasps in each hand a patera, which is in Asia and Libya a well-known symbol of dominion, and of the receipt rather than the offering of worship. Zeus at Cyrene, Pallas at Side, and many other great city-deities carry a patera in their hand on coins of various periods.

1. **ΣΑΜΙΩΝ**. Hera Samia, r., in front of her, prow of galley. Tiberius. (Imhoof.) Pl. V. 1.
2. **ΣΑΜΙΩΝ**. Hera Samia, l. Domitian. (Paris.) Pl. V. 2.
3. **ΣΑΜΙΩΝ**. Hera Samia, r. Caius. (Wigan.) Pl. V. 3.
(A common type until the time of the Antonines.)
4. **ΣΑΜΙΩΝ**. Hera Samia, facing, beside her, Nemesis veiled. Gallienus. (B.M.) Pl. V. 4. Commodus, &c.
5. **ΣΑΜΙΩΝ**. Nemesis, veiled; a wheel at her feet. Etruscilla, Valerian.
6. **ΣΑ[ΜΙΩΝ]**. Peacock, r.; behind it, sceptre. Augustus. (B.M.) Pl. V. 5. Agrippina, jun.
7. **ΣΑΜΙΩΝ**. Two peacocks facing each other. Domitian. (Mionnet, *Suppl.*)

¹⁰⁶ Above, under *Principal Types*.

8. **ΣΑΜΙΩΝ**. Tyche or Fortune of Samos, l., turreted ; holds in one hand figure of Hera Samia, in the other, cornucopiae.
Trajan Decius. (B.M.) Pl. V. 6. Gallienus.
9. **ΣΑΜΙΩΝ**. Hera Samia, facing.
Commodus, Caracalla, and later.
10. **ΣΑΜΙΩΝ**. Hera Samia, facing, in tetrastyle temple.
Domitian. (B.M.) Pl. V. 7. Caracalla.
11. **ΣΑΜΙΩΝ**. Hera Samia, facing, between peacocks.
Caracalla, Macrinus.
12. **ΣΑΜΙΩΝ**. Two naked children seated face to face, playing with astragali, between them Hera Samia, Valerian the Younger. (B.M.) Pl. V. 8. Caracalla.
13. **ΣΑΜΙΩΝ**. Forepart of galley, *Σαμαίνα*.
Domitian. (B.M.)
14. **ΣΑΜΙΩΝ ΠΡΩΤΩΝ ΙΩΝΙΑΣ**. Nemesis and Hera Samia, facing.
Gallienus. (B.M.) Pl. V. 9.

The above types, though numerous, do not contain much that is peculiar or distinctive. No. 1 proves that prows of successful ships were dedicated in the Heræum. The Nemesis of No. 4 is very different from the austere goddess of Greek poetry who rules over the very gods ; and even the Nemesis-Aphrodite of the Athenians, whose statue stood at Rhamnus. She should, perhaps, rather be termed Adrasteia, Adrasteia being a deity who was much worshipped in Mysia and Phrygia, and closely connected with the worship of Cybele. At Smyrna we find on the coins two Nemeses, who are closely connected with the worship of Mater Sipyrene, the local form of Cybele, and sometimes appear in a chariot drawn by griffins. They are doubtless Asiatic goddesses remoulded and made symbolical by Greek artistic fancy. The Nemesis of

Samos is of similar character. The only attribute really belonging to the Greek Nemesis which accompanies her figure is the wheel which sometimes appears at her feet (see No. 5), and which may be of solar origin, though in later times turned to moral account. She is closely veiled, and looks indeed almost like Hera herself. Probably she, like the Samian Artemis Parthenia, is really representative of the same deity as the Samian Hera, a shadow or double of the great local goddess. No. 12 is a type which recurs at Ephesus under Geta, the only variety being that there the goddess in the background is, as is natural, Artemis Ephesia in place of Hera. The meaning of it is not easy to discern. We might perhaps be inclined to see in it only a copy of some noted groups of Ἀστραγαλίζοντες preserved in the temples of Ephesus and of Samos, such groups as that by Polycleitus of which Pliny speaks in terms of very high praise.¹⁰⁷ I should almost be inclined, however, to attribute to it a religious meaning. We know that in certain temples of antiquity oracles by throw of dice were usual,¹⁰⁸ especially in the temple of Athene Sciras in Attica, and it is no uncommon thing to find on vases pictures of warriors casting astragali sometimes for an omen of their fate, in the presence of a deity, sometimes in mere gambling.¹⁰⁹ There is a difference no doubt whether the astragali used as dice are thrown by warriors with a serious purpose, or by children, and the religious purpose seems in the latter case more problematic; it is, however, possible that children may have been

¹⁰⁷ *Nat. Hist.*, xxxiv. 55.

¹⁰⁸ So Schel. *Pind.*, *Pyth.* iv. 337, καὶ ἐν τοῖς ἱεροῖς ἀστέραλοι κείνται, οἷς διαμαντεύονται βάλλοντες.

¹⁰⁹ Instances collected by Welcker, *Alte Denkm.*, iii. 1.

employed, as more innocent than adults, in throwing lots for oracles. The Tyche of Samos who appears on No. 8 bearing a simulacrum of Hera is doubtless from a statue. Following the example of the people of Antioch, who had a statue of their city made by Eutychedes, the cities of Asia had themselves embodied by sculptors in female forms who each held an appropriate object in her hand, either the deity of the city or a temple or a symbol. These allegorical figures play the same part in late Greek art that the deities of cities themselves play in earlier art, on votive monuments, for instance, and at the head of honorary decrees. The Tyche of Samos is of a very ordinary type, and when she appears, as in No. 32 below, without the simulacrum in her hand, does not differ from the ordinary Roman Fortuna.

The inscription of No. 14 is noteworthy. Honorary titles such as *πρώτη*, *μεγίστη* and *μητρόπολις* were eagerly claimed by the Greek cities of Asia Minor, who quarrelled among themselves for the exclusive use of them, though they were mere names, the shadow of an ass, as Dio Chrysostom calls them. The particular title *πρώτη Ἰωνίας* was specially claimed by three cities, Pergamon, Ephesus, and Smyrna, and appears on the late Imperial coins of all those cities. Not only did these three cities dispute the precedence among themselves, but even referred the weighty question to Rome; and among the inscriptions brought from Ephesus by Mr. Wood¹¹⁰ is a very amusing Imperial rescript on the subject. It is by Antoninus Pius, and is a model of tact and sense. Evidently the Ephesians had complained to him that the Smyrnæans

¹¹⁰ Inscr. from Odeum, No. 2, in Appendix to Wood's *Discoveries at Ephesus*.

did not address them by their proper title; the Emperor expresses his conviction that the omission was purely accidental and would not be repeated. The claim of Samos to the title was later and less strong than that of the three great cities already mentioned. It seems only to have been made in the reigns of Gordian III., Trajan Decius, and Gallienus, in the first of which reigns we may suppose either that Samos increased in prosperity, or, what is more probable, that her rivals on the mainland were beginning to suffer from Gothic incursions.

The following coins of Perinthus must be here cited :

ΠΕΡΙΝΘΙΩΝ. Hera Samia, r., on prow.
Nero. (B.M.) Pl. V. 14.

ΗΡΑ ΠΕΡΙΝΘΙΩΝ. Hera Samia, l. Octavia.
(Fox, *Uned. or rare Greek coins*, suppl. plate, No. 7.)

The former of these coins may be, as Overbeck¹¹¹ suggests, an aphidryma or copy of a statue on a sculptured prow preserved at Perinthus. Or the prow may be merely symbolical, to show that the goddess came to Perinthus by sea with Samian colonists. The testimony of the second is valuable and unequivocal, showing that the Perinthians not only adopted the Hera of Samos, but considered her as their own.

We must mention here an error which has arisen from a misreading of Patin. It is stated by Eckhel and Mionnet that there is on a coin a Samian goddess called **MHNH**. The coin is said by Patin¹¹² to read thus:—

¹¹¹ *Kunstmythol.*, iii. 15.

¹¹² *Mon. Imp. Rom. Num.*, p. 58.

Obv.—ΘΕΟΝ ΣΥΝΚΛΗΤΟΝ. Male head. (Augustus.)

Rev.—ΜΗΝΗ ΣΑΜΙΩΝ. Head, r., wearing turreted crown. (Livia.)

This, however, is a mere misreading of a common coin of Pergamon:—

Obv.—ΘΕΟΝ ΣΥΝΚΛΗΤΟΝ. Head of the Senate.

Rev.—ΘΕΑΝ ΡΩ ΜΗΝ. Head of Roma. Æ. 75.

the letters ΕΑΝΡΩ being read as ΣΑΜΙΩ, and the point at the end of ΜΗΝ taken for another letter.

Next in interest to the types having reference to Hera come those representing Pythagoras, who is stated by Isocrates, Pliny, and other writers to have been born in Samos, and is said by Strabo¹¹³ to have quitted the island when Polycrates became its tyrant.

15. ΠΥΘΑΓΟΡΗΣ ΣΑΜΙΩΝ. Pythagoras seated, l., touches with wand globe on top of column; in his other hand sceptre.

Trajan Decius. (B.M.) Pl. V. 10. Julia Mamaea.

16. ΣΑΜΙΩΝ. Pythagoras standing, l., touches with wand globe on top of column.

Commodus. (Brera.) Pl. V. 11.

The globe which Pythagoras touches is rather celestial than terrestrial; Atlas is often represented as bearing such a globe, with the constellations figured upon it. That Pythagoras was looked on in later times as an astronomer is not surprising; he is said to have learned the science of astronomy from the Chaldeans and to have made great discoveries.¹¹⁴ Globes were favourite instruments of the astronomers of Alexandria; Archimedes in particular is

¹¹³ P. 638.

¹¹⁴ Pliny, ii. 8.

said to have made some of extremely ingenious construction. Perhaps too the die-cutter may have known something of the tenets of Pythagoras; the Pythagoreans regarded the universe as a sphere, and made measure the essence of things. It may be doubted whether on our coin the sage is measuring or delivering a discourse illustrated by globes.

17. **ΕΑΜΙΩΝ**. Nymph, r., holds in both hands a basin or shell.
Trajan Decius. (Paris.) Pl. V. 12. Etruscilla.

This figure is described by Mionnet as Venus holding a mirror; but he is clearly wrong. It seems copied from some statue, as it recurs both on autonomous and Imperial coins, and in various scales. Which among the local nymphs it may represent is uncertain; perhaps it may be Samia, daughter of Mæander, and so a river-nymph, whom Ancæus wedded.

18. **САΜΙΩΝ**. Hunter, r., spearing wild boar.
Caracalla. (B.M.) Pl. VI. 1. Mamæa.

In other specimens a dog accompanies the hunter.

19. **САΜΙΩΝ**. Warrior, r., wearing helmet, slaying a figure clad as an Amazon; behind him tree.
Gallienus. (Paris.) Pl. VI. 2.

20. **САΜΙΩΝ**. Male figure running, r., holding shield, his foot on a prow.
Julia Mamæa. (B.M.) Pl. VI. 3. Alexander Severus, &c.

These three types seem to refer to the stories of the Ionian colonization. The hunter on No. 18 is not, as we might at first fancy, Meleager. We find an identical type at Ephesus, which shows that the hero depicted is the colonizer alike of Samos and Ephesus, Androclus, a

younger son of Codrus, who led the Athenian colonists to the two places. He is said in the legend to have been directed where to build Ephesus by an oracle which bade him find a city where he met a boar; and a boar met him and was slain by him on the ridge where Ephesus afterwards stood. A frequent type of the coins of Ephesus is a boar pierced by a spear, and a coin of Antinous in the British Museum has the following reverse:—**ΕΦΕCΙΩΝ** **ΑΝΔΡΟΚΛΟC**, Androclus walking r., a spear over his shoulder and in his hand the head of a boar; a tree behind him. Mionnet also mentions an Ephesian coin which bears the name of Androclus, and the figure of the hero attacking a boar:—a type which proves to demonstration that our attribution is correct.

No. 19 may record another exploit of Androclus. The figure which is being slain on this coin may be either male or female. The dress is that of the Amazons, and if the figure be female we may note that the Ionian shore was the home of the legend of the Amazons, and Androclus may, like Heracles, and Theseus, and Achilles, have been represented in legend as fighting against them. If the figure, however, be male, it may stand for a Carian chief; for the Carians and Leleges offered stout opposition to the Athenian settlers. The Amazonian dress, which would ill suit a Greek warrior, would very probably be transferred from the Amazons to their rivals and successors, the Carians; and this interpretation is strongly confirmed by the next coin, which shows us an armed figure running to his ship, who seems certainly not to be an Amazon, although dressed in a thoroughly Amazonian chiton leaving one shoulder bare; but the shield is circular, not lunar, and the breast clearly male. Our hero on No. 20 seems to be flying in terror from some enemy, and escaping from him into a

ship. He is probably one of the Carian chiefs expelled from the district by the Greeks. The Carians were great in ships; like the Amazons themselves, for on the coins of Smyrna which have as type an Amazon there is often a ship in the background.

21. **CAMIΩN**. Female figure clad in short chiton, advancing, l., holds wreath and palm.
Gordian III. (B.M.) Pl. VI. 5. Commodus, Caracalla, &c.

This figure has been variously described by numismatists as Artemis, an athlete, &c. But it is clearly female, and as clearly connected with some athletic victory. I conjecture it to be Heræa, the impersonation of the chief games of the island, who naturally wears a girt-up chiton like Artemis, and holds in her hands the rewards of the victors. Similarly Olympia appears on coins of Elis, Actia on those of Nicopolis, &c., and one might cite many instances in sculpture. The attitude of the figure is rather that of one who gives than of one who receives a wreath; so that we cannot suppose it to stand for a victorious female athlete, even if such there were at Samos, which we may well doubt, in spite of the existence of races of girls at the Heræa in Olympia.

22. **CAMIΩN**. River-god reclining, l., holds reed and cornucopiæ.
Alexander Severus. (B.M.) Pl. VI. 13. Hadrian, Commodus, &c.

We might have supposed the river here represented to be Mæander, father of Samia, but for the following:—

23. **IMBPACOC CAMIΩN**. River-god reclining, l.
(Waddington.) Trajan.

The Imbrasus is scarcely a river, rather a torrent; but it was made famous by the birth of Hera on its banks.

24. **CAMION**. Naked male figure, r., hurling stone at serpent.
Gallienus. (Paris.) Pl. VI. 6. Gordian III.

This scene probably represents the slaying of the serpent by Cadmus at Thebes. Cadmus was brother of Europa, whom he is said to have sought before his journey to Thebes at Thera and Rhodes, and other islands of the Ægean; his myth may well therefore have found a home in Samos. We have a representation of the same scene on late coins of Tyre; only there Cadmus wears a chlamys. On the present coin he is naked; but the art of the piece is so wretched that this need not surprise us.

25. **CAMION**. Heracles facing, holds in r. club, in l. bow and arrow, lion's skin on shoulder.
Philip the Elder. (B.M.) Pl. VI. 13. Gallienus.

This type, being identical on the coins of Philip and Gallienus, is probably taken from a statue. In that case it must probably be a copy of the colossal statue of Heracles erected by Myron at Samos, and placed on the same base with figures of Zeus and Athene.¹¹⁵ This statue was removed to Rome by Mark Antony, but restored to the island by Augustus. Our coin is so rude that it is hard to say whether we can trace in it anything of Myronic style, though there is something of archaism in the pose; it is also noteworthy that the head of Heracles is distinctly bearded.

26. **CAMION**. Heracles and Apollo contending for the tripod.
Commodus. (Paris.) Pl. VI. 10. Maerinus.

¹¹⁵ Strabo, p. 637.

There are few Heracleian types at Samos ; but that the hero was much honoured in the island, and even regarded as *oecist*, is shown by the following piece of Perinthus :—

Obv.—ΙΩΝΩΝ ΤΟΝ ΚΤΙΕΤΗΝ. Head of Heracles, r.,
laur.

Rev.—ΠΕΡΙΝΘΙΩΝ ΔΙΕ ΝΕΩΚΟΡΩΝ. Club.
(B.M.) Pl. V. 13.

We next reach several mythological types which do not embody local legends, and therefore do not imperatively require comment.

27. **ΣΑΜΙΩΝ.** Poseidon and Zeus, both facing.
Commodus. (Paris.) Pl. VI. 7.

28. **ΣΑΜΙΩΝ.** Hygieia, Asclepius, and Atys.
Trajan Decius. (Paris.) Pl. VI. 12.

The substitution of Atys for Telesphorus is noteworthy. It may, however, be a mere mistake of the die-cutter.

29. **ΣΑΜΙΩΝ.** Goat, r. Trajan Decius.

This animal belongs no doubt to the cult of Hermes.

30. **ΣΑΜΙΩΝ.** Ares and Aphrodite facing one another.
Philip the Elder. (Paris.)

The worship of Ares may have been acquired in Thrace, or introduced by the Byzantine settlers imported by Syloson.

31. **ΣΑΜΙΩΝ.** Apollo holding arrow and bow.
Caracalla. (Vaillant.)

32. **ΣΑΜΙΩΝ.** Fortuna, l. (The Τύχη of the island.)
Elagabalus, Gordian III., &c.

83. **ΕΑΜΙΩΝ**. Two female figures, facing the spectator; one raises her hand; the other holds on her arm a child who wears modius, and carries cornucopiæ. Trajan Decius. (B.M.) Pl. VI. 9.

This type recurs under Valerian, and there are several varieties of it. On the coin in our plate both the female figures are closely veiled, on one in the French Collection neither is veiled, but she to the left wears a stephane. On a coin of Valerian in the French Collection, she who holds the child appears to hold a rudder, and is so described by Mionnet (No. 296); but this is doubtful. No better explanation suggests itself than that the infant is Harpocrates, and the figure carrying him Isis; the resemblance, however, of her drapery to that of Nemesis is striking. The remaining figure is doubtful; it may perhaps be Hera.

Most of the remaining types refer to the exploits of Emperors. These I will pass by, with the exception of a few.

84. **ΕΑΜΙΩΝ**. Male figure facing in military dress, laureate, holds patera and sceptre; behind him, galley. Philip the Elder. (Paris.) Pl. VI. 4.

85. **ΠΡΩΤΩΝ ΙΩΝΙΑΕ ΕΑΜΙΩΝ**. Male figure, l., on horseback; in front of him Sarapis extending his r. arm, and holding sceptre in l. hand. Trajan Decius. (Paris.)

The male figure of No. 34 seems to be the Emperor Philip, or his son; and the ship in the background may show that he landed at Samos, perhaps to pay his respects to the great goddess. The figure on horseback of the next coin is the Emperor Decius; but Sarapis who greets him is not a local Samian deity.

36. **ΣΑΜΙΩΝ**. Male figure clad in toga, advancing l.; holds in r. hand staff or roll.

Philip the Younger. (Paris.) Pl. VI. 8. Trajan Decius.

This type seems unexplained. The figure is that of a youth with bare head. Had it occurred on coins of young Philip only, we should have supposed it to represent him, perhaps as a visitor to the island; but the subsequent recurrence under Decius seems to forbid such interpretation, unless we can suppose that an old reverse die was carelessly used.

The last coin we shall cite records a monetary alliance between Samos and Alexandria.

37. *Obv.*—**ΑΥΤ ΚΑΙ Μ ΑΝΤ ΓΟΡΔΙΑΝΟΣ**. Head of Gordian III., laur.

Rev.—**ΣΑΜΙΩΝ ΚΑΙ ΑΛΕΞΑΝΔΡΕΩΝ ΟΜΟΝΟΙΑ**. Isis, standing, holding in her two hands a spread sail. (Paris.)

MONETARY MAGISTRATES.

The following is a list of magistrates' names on Samian coins, with statement of the period to which they belong, and the metal in which they strike. The names **ΑΡΤΙΠΟΥΣ**, **ΚΑΥΣΙΟΣ**, **ΠΕΛΥΣΙΟΣ**, and **ΠΑΓΡΩΝ** are not in Pape's Dictionary, new edition.

A.	<i>Period.</i>	B.	<i>Period.</i>
ΑΡΙΣΤΗΙΔΑ[Σ.	IV. \mathcal{A} .	ΒΑΤΙΣ. ?	III. \mathcal{A} .
ΑΡΤΙΠΟΥΣ.	"	ΒΑΤΤΟΣ.	V. \mathcal{A} . \mathcal{A} .
ΑΜΦΙ.	"		
ΑΛΕΞΗΣ	V. \mathcal{A} .		
Α]ΣΚΛΗΠΙΑΔΗ[Σ.	"	Δ.	
ΑΙΓΥΡΤΟΣ.	V. \mathcal{A} .		
ΑΡΙΣΤΟΜΑ[ΧΟΣ.	"	ΔΗΜΗΤΡΙΟΣ	IV. \mathcal{A} .
ΑΡΣ["		
ΑΛΥΓΗΤΟΣ.	"	ΑΝΤΙΑ.	

Ε.	<i>Period.</i>	Ν.	<i>Period.</i>
ΕΠΙΚΡΑΤΗΣ ΑΧΕΛΩΙΟ.	IV. Ἀ.	ΝΑΝΙΣΚΟΣ.	V. Ἀ.
ΕΠΙΓΕΝΗΣ.	V. Ἀ.	Ρ.	
ΕΡΜΟΔΙΚΟΣ.	V. Ἀ. Ἀ.	ΡΥΘΑΓΟΡΗΣ.	IV. Ἀ.
ΕΥΒΟΥΛΟΣ.	V. Ἀ.	ΠΡΩΤΗΣ.	"
ΕΚΑΤΑΙΟΣ.	"	ΠΕΙΣΙΣΤΡΑΤΟΣ.	V. Ἀ.
Η.		ΠΑΡΙΣ.	V. Ἀ.
ΗΓΗΣΙΑΝΑΞ.	IV. Ἀ.	ΠΕΛΥΣΙΟΣ.	"
ΗΓΙΟΣ.	"	ΠΑΓΡΩΝ.	"
ΗΡΟΔΟΤΟΣ.	V. Ἀ.	Σ.	
Θ.		ΣΙΜΟΣ.	V. Ἀ.
ΘΕΟΚΛΗΣ.	V. Ἀ.	ΣΤΡΑΤΩΝ.	"
ΘΕΟΜΝΗΣΤ[ΟΣ].	"	ΣΩΤΑΣ.	"
ΘΕΟΔΩΡΟΣ.	"		
Ι.		Τ.	
ΙΕΡΩΝ.	V. Ἀ.	ΤΑΥΡΕΑΣ.	V. Ἀ.
Κ.		ΤΙΜΟΚΛΗΣ.	V. Ἀ.
ΚΑΡΝΕΙΟΣ.	IV. Ἀ.	ΤΙΜΟΚΡΙ[ΤΟΣ].	"
ΚΑΥΣΙΟΣ.	V. Ἀ.	Φ.	
ΚΛΕΙΤΟΦΩΝ.	"	ΦΡΑΣΤΩΡ.	IV. Ἀ.
Λ.		ΦΙΛΤΗΣ.	V. Ἀ.
ΛΗΣΙΑΝΑΞ. ?	IV. Ἀ.	ΦΙΛΟΞΕΝ[ΟΣ].	"
ΛΕΩΣ.	"	ΦΙΛΩΤΑΣ.	"
ΛΟΧΙΤΗΣ.	"		
ΛΕΡΤΙ[ΝΗΣ].	"	Χ.	
ΛΕΟΝΤΙΣΚΟΣ.	V. Ἀ.	ΧΑΡΗΜ[	V. Ἀ.
Μ.		<i>Incerti.</i>	
ΜΗΤΡΟΦΩΝ.	V. Ἀ.		
ΜΕΛΑΝ["		
ΜΙΚΙΩΝ.	V. Ἀ.	]ΕΝΝΑΙΟΣ.	V. Ἀ.
ΜΗΤΡΟΔΩΡ[ΟΣ].	"	... ΒΙΛΛΑΣ.	"

This list must be admitted to be very disappointing. Not only is the total number of magistrates' names, fifty-six, very small compared with the number which can be found on coins of other states of Asia Minor, notably

Ephesus, but even of the names which we have, not much can be made.

In the first place it is most extraordinary that only in two instances, those of Battus and of Hermodicus (**ΕΡΜΟ** on copper), do we find names common to silver and copper money. As it is most unlikely that different magistrates issued the coins in different metals, this seems to show how imperfect is our list.

Again, very few of the names on coins appear in Samian inscriptions.¹¹⁶ I have only observed the following two instances in which it is likely that the same person who minted coins is mentioned in inscriptions. **ΒΑΤΤΟΣ** moves a decree¹¹⁷ to confer honours on a Sidonian named Metrodorus for favours shown to the Samians during their exile. He is not stated to have been a magistrate, and the name is a common one, but he may well have been the Battus of our fifth period. **ΘΕΟΜΝΗΣΤΟΣ** is one of the Samian Prytanes mentioned in the Rhodian judgment¹¹⁸ on the dispute between Samos and Priene, a document of the middle of the third century. He is very probably identical with the monetary magistrate of our fifth period. Other names are common to inscriptions and coins, but introduced in the former in a connection, or at a period, which makes it unlikely that they are the issuers of our coins. Thus **ΑΣΚΛΗΠΙΑΔΗΣ**, **ΘΕΟΔΩΡΟΣ**, **ΘΕΟΚΛΗΣ**, **ΛΕΟΝΤΙΣΚΟΣ**, and **ΜΗΤΡΟΔΩΡΟΣ** all issued coins in our fifth period, B.C. 322—205. Asclepiades is the name of a Samian envoy late in the second century,¹¹⁹ Theodorus

¹¹⁶ Of these there is a full list in C. Curtius' *Inscripfen und Studien zur Geschichte von Samos*.

¹¹⁷ *C. I.* 2256, Curtius, No. 12.

¹¹⁸ Lebas and Waddington, No. 189. In the *C. I.*, 2905, 5 E, this name is misread as Theodorus.

¹¹⁹ Curtius, No. 13.

of a Samian Demiurgus in Roman times,¹²⁰ Theocles of an Archon at Samos at the period of Athenian possession,¹²¹ while Leontiscus and Metrodorus are citizens of Ephesus and Sidon, who were benefactors of Samians during the exile.¹²² It is quite likely that Samians in their gratitude named their children after these friends, and the children may have become monetary magistrates; but this is a mere conjecture. So, too, when we find the name of Molpus, son of Pythagores, in an inscription of the end of the fourth century,¹²³ it is easy to suppose him a son of the Pythagores who struck money in the period before B.C. 365. But on so slight foundations as these we cannot attempt to build.

The eponymous magistrate of Samos was, in Roman times at least, the Demiurgus.¹²⁴ We hear frequently of Prytanes, and on one occasion the board of Prytanes seems to have consisted of five members; ¹²⁵ but of course we cannot say that it did so always. It is suggested by the analogy of the Ephesian coinage that the monetary magistrate at Samos was probably one of the board of Prytanes. This was indeed the usual custom in Ionian cities, and can be shown to have prevailed elsewhere also, as at Coreyra. This probability is to some extent confirmed by the fact just cited, that Theomnestus was one of the Prytanes, and did issue coin. Of course little could be made of a detached instance like this, in the absence of inherent probabilities; but as it precisely confirms the view we had most reason to accept, it may be allowed as an additional reason for maintaining that view.

PERCY GARDNER.

¹²⁰ Lebas, No. 202.

¹²² Curtius, Nos. 10, 12.

¹²⁴ Lebas, No. 202.

¹²¹ Curtius, No. 6.

¹²³ Curtius, No. 8.

¹²⁵ Lebas, No. 189.



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XIII.

POSTSCRIPT TO THE PAPER ON THE DATES FOUND ON HINDU KABUL COINS.

SINCE the above paper was in print I have had the advantage of conversing with Professors Oldenberg and Jacóbi, and find that they both attach more value than has been allowed in my argument, to the astronomical evidence cited by General Cunningham. Professor Jacóbi has himself recalculated the tables which General Cunningham received from Pandit Bápú Déva Shástri, and considers them to be correct. He, however, pointed out to me that, according to these tables, the year 190 A.D. will suit the dates given by General Cunningham quite as well as 167 A.D., which General Cunningham has adopted as the commencement of the Gupta era.

On examining this point more closely, I find that, as a matter of fact, the year 190 suits far better, agreeing exactly with three out of the five dates given, and in the other two the differences can be corrected by supposing a slight and very probable error.

General Cunningham's argument is founded on the employment in certain cases of dates in the Gupta era, *together* with dates also in the Vrihaspati or Jovian cycle, in which the years are named after the twelve months of the Hindu year, but the name of one of the months is dropped every eighty-sixth year in order to make the *cycle* years

accord with the actual years of Jupiter's revolutions. Bápú Déva Shástri has given a table of the Vrihaspati era rendered into years of the Christian era, which General Cunningham has quoted in vol. x. of the "Archæological Survey Report;" and the results of applying this to the dates of five inscriptions quoted, according to the two dates 167 A.D. and 190 A.D. respectively, will be now given.

There is a sixth inscription which, though not giving the Jovian date, gives the day of the week. General Cunningham relies much on this date, which will also be tested.

The dates of the inscriptions will be found at pp. 9 to 16 of vol. ix. of the "Archæological Survey of India," and these, according to the initial year 167 A.D., come out as follows:—

- I. 156. Máha Vaisákh, 156 + 167 A.D. = 323 A.D. (Bápú Déva gives Jyestha).
- II. 173.¹ Máha Aswayuja, 173 + 167 A.D. = 340 A.D. (B. D. gives Kartik).
- III. 188. Máha Margasíra, 188 + 167 A.D. = 355 A.D. (B. D. gives Margasíra).
- IV. 191. Máha Chaitra, 191 + 167 A.D. = 358 A.D. (B. D. gives Vaisákh).
- V. 209. Máha Aswayuja, 209 + 167 A.D. = 376 A.D. (B. D. gives Kartik.)

That is, the result tallies exactly only in the case of No. III. inscription. With the initial date 190 A.D., however, the case is very different, as will be seen below:—

- I. 156. Máha Vaisákh, 156 + 190 A.D. = 346 A.D., which was Máha Vaisákh.
- II. 173. Máha Aswayuja, 173 + 190 A.D. = 363 A.D., which was Máha Aswayuja.
- III. 188. Máha Margasíra, 188 + 190 A.D. = 378 A.D., which was Máha Vaisákh.

¹ This date is 163 in the original plate, but, as Gen. Cunningham points out, it is a palpable error for 173.

- IV. 191. Māha Chāitra, $191 + 190$ A.D. = 381 A.D., which was Māha Chāitra.
 V. 209. Māha Margasīra, $209 + 190$ A.D. = 399 A.D., which was Māha Kartik.

It will thus be seen that 167 A.D. gives only one date which exactly corresponds, two which are out by one year, and two wholly wrong. On the other hand, 190 A.D. gives three out of five cases exactly right, and in the other two the dates are only out by one year, in one instance a year in defect, in the other a year in advance, which might well be errors of a half-informed pandit dealing with an unusual subject. Perhaps, considering all the chances of error, this is as close an approximation to astronomical precision as is to be expected in Indian dates. It may be said that an additional source of confusion has been pointed out to me by Professor Jacóbi, viz., that some writers count an era from the first day of what we should call the first year, while others, using the same era, consider the first day of the era to be the first after the first completed year. Again, the year may commence at various seasons, according to local custom, as in the case of the Vikramaditya era, which differs by six months according to northern or southern usage.

The sixth date quoted by General Cunningham is that of the Budha Gupta inscription of the 165th era, at Eran, which is dated on *Thursday*, the 12th day of Ashadha. According to the date of 167, Bápú Déva Shástri brought out this date as a *Friday*, but General Cunningham, by applying another and more ancient mode of reckoning, brought out a correct result. Apparently, however, according to the method given in Prinsep's² tables (Prinsep, *Essays*, ed. Thomas, vol. ii., pp. 180, 181), the 12th

² By these tables the date seems to be *Thursday*, 17th May, 355 A.D.

Ashadha, 355 A.D. (165 + 190), was *Thursday*, and this too would agree with Bápú Déva's results.

In four cases, therefore, if the last calculation be correct 190 A.D. gives exactly the results required by the inscriptions, and in the remaining two the approximation is so close that it may be practically neglected, especially as the error is in defect in one instance and in excess in the other.

Under these circumstances it may be better to take 190 A.D. rather than 189 A.D. as the real commencement of the Gupta era. Deducting this from 319 A.D., the date of the Valabhi era, it will give 129 of the Gupta era as the initial year of this last. If this be the date of Kumára Gupta's death, as has been suggested, then the coin dated 130, figured in vol. ix. of the "Archæological Survey Report," pl. v., fig. 7, must be taken as a posthumous one, which may well be the case, for the legend resembles that found on the ruder coins already described as posthumous. As regards other dates, 190 A.D. will fit as well as 189 A.D.

Mr. Burgess has, however, just informed me that the whole subject of the Jovian cycle is about to be reviewed by Mr. Thibaut, of Benares, in the "Indian Antiquary" for the month of September, 1882. These remarks are therefore given only "under reserve."

E. CLIVE BAYLEY.

NOTICES OF RECENT NUMISMATIC PUBLICATIONS.

The *Zeitschrift für Numismatik*, Band. IX., Heft II., contains the following articles :—

1. J. Friedlaender. *On the weight standard of early Sicilian coins called by Bœckh the Euboïc.* In this paper Dr. Friedlaender endeavours to show, in opposition to the recently expressed views of Dr. Imhoof-Blumer (*Monatsbericht d. k. Akad. d. Wissensch. z. Berlin, June, 1881*), that the earliest coins of the Chalcidian colonies in Sicily (Zancle, Naxos, Himera, &c.), weighing 94 and 16 grs., are in fact drachms and obols of the Aeginetic standard (erroneously called by Bœckh the Euboïc), and that Dr. Imhoof-Blumer—whom, however, he does not mention by name—is wrong in calling them thirds and eighteenthths of the Attic tetradrachm. These coins, Dr. Friedlaender contends, are, as a rule, too heavy to belong to the Attic (or Euboïc) standard.

2. L. Bürehner. *On Greek coins bearing the portraits of celebrated historical personages.* In this article the writer has brought together as many as five-and-thirty individuals whose portraits are to be found on coins, chiefly Greek Imperial of Asiatic towns.

3. A. von Sallet. *Contributions to ancient Numismatics and Archæology* :—

(α) *A bronze figure of Apollo, from Naxos, holding in his hand a round object, compared with a coin of Sinope shewing a similar figure of Apollo holding an oil-flask and laurel-branch.*

(β) *A bronze figure of Apollo, in the Carlsruhe Museum, which Dr. von Sallet thinks, on the analogy of a bronze medallion of M. Aurelius, Berliner Münzcabinet, No. 1066), must have at one time held in its hand the snake-entwined staff of Asklepios.*

(γ) *An archaic bronze head, in the Berlin Museum, found in the island of Cythera, and called by Brunn the head of a youth.* Dr. von Sallet compares with this head that of Aphrodite on archaic coins of Cnidus, and from the great likeness between them infers that the bronze head is that of a statue of Aphrodite which once stood in a temple in Cythera.

(δ) *The marks of value on bronze coins of Metapontum.* In addition to those already known with the legend **ΟΒΟΛΟΣ** (*Brit. Mus. Cat. Ital.*, p. 259), smaller divisions reading **ΤΕ** and **ΗΕ**, presumably *τεταρτημόρια* and *ἡμιτεταρτημόρια*, are here engraved.

(ε) *Coins of Byzantium.*—*The title Βασιλεύς as that of a magistrate in Roman Imperial times.*—*The gods as magistrates in Greek cities.* The hitherto unexplained legend **ΕΠΙ · ΒΑΣ · ΑΙΜΙ · ΔΕΥΗΡΟΥ** on an Imperial coin of Byzantium is for the first time proved, by its occurrence in several inscriptions, to stand for *βασιλεύς*.

The fact that the gods Demeter, Dionysos, Nike, Tyche, and Dea Faustina frequently occur as magistrates on coins of Byzantium is shown to be not unprecedented in other towns. Dr. von Sallet explains this curious custom by supposing that from time to time the chief magistrature fell to the turn of the corporation of the priesthoods of the various divinities, and that the high-priest (or priestess, as the case might be) for the time being, instead of placing his own name, as such, upon the coin issued during his tenure of office, substituted for it that of the god whom he (or she) represented.

(ζ) *The so-called Attic tetradrachms of Maronea.* Dr. von Sallet here points out that the well-known large tetradrachms of Maronea, with the head of Dionysos on one side and a figure of the same god standing on the reverse, range in weight from 255 to 228 grs., while those of Thasos of similar style, with the head of Dionysos and standing Herakles, are distinctively heavier, ranging from 260 to 255 grs. The writer premises that the coins of the two towns are contemporary, and hence draws the inference that it is impossible to lay down any exact laws as to standards of metrology, which were subject to all sorts of local variations, which it is often impossible to account for. Without doubt there is much truth in Dr. von Sallet's words, but, we would ask, is it after all so certain that the coins of Maronea are contemporary with those of Thasos? May they not have commenced after those of Thasos had ceased to be issued?

(η) *Symbols on the coins of Philip II. of Macedon.*

Müller, as every collector knows, has most ingeniously classified the coins of Philip, Alexander, and Lysimachus, according to the adjunct symbols which they bear, to various mints, both in European and Asiatic Greece. His arrangement is so plausible, and, it may be added, so convenient (no more satis-

factory method having been as yet elaborated), that it has been very generally adopted, not only by collectors, but in most of the public collections. Nevertheless, it is becoming every year more and more apparent that the whole edifice rests on a foundation of sand. The symbols, however much they may resemble municipal devices or coin-types, are, as Dr. von Sallet clearly shows, merely the signets of the monetary magistrates, and only very exceptionally to be accepted as mint-marks.

(θ) *On a coin of Pharsanzes, King of Bosphorus.* The coin here published reads clearly ΒΑΣΙΛΕΩΣ ΦΑΡΚΑΝΖΟΥ ΝΦ (year 550 of the æra of Bosphorus=A.D. 253). The usual reading, Phareanzes, is incorrect.

(ι) *Remarks on the coins of the Scythian Kings.*

(κ) *Coins of Alexander's successors in Bactria and India.*

Sophytes, Demetrius, Eucratides, Heliocles, Menander, Nicias, Maues, Azes, Azilises, "Hardagases," Abdagases, Zeionises, Kanerki, &c.

(λ) *Asklepios and Hygieia "banqueting," on a coin of Pergamum.*

(μ) *On a Find of Roman Denarii near Metz.*

(ν) *Crispina and Commodus.*

(ξ) *On a Denarius of Aurelian with the legend RESTITV-TORIGENTIS.*

Dr. von Sallet is doubtless right in here taking "Origens" as a late unclassical form of "Oriens," the insertion of a G between two vowels in base times being not without many precedents. The coin should therefore be read RESTITVT · ORIGENTIS, and not RESTITVTORI · GENTIS.

4. O. di Dio. *Allia, an unpublished Denarius.*

5. A. von Sallet. *On the lead medals of Tobias Wolff—Tobias Wolff the elder and T. Wolff the younger.*

6. A. Erman. *Supplement to the Acquisitions of the Coin-room.*

B. V. H.

MISCELLANEA.

SAXON COINS FOUND IN IRELAND (note on p. 105).—Since this communication was sent to press I find that a penny of Eadweard the Elder, found at Cuerdale, "bears on its reverse the name of Bath, which is the only place of mintage mentioned on any of the coins of this king." The coin is in the British Museum.

Hawkins, "Silver Coins of England," 2nd edition, 8vo, 1876, p. 192. AQUILLA SMITH.

THE FIRST GOLD NOBLE.—The precise meaning of the obverse type and reverse legend of the first gold nobles has never been quite satisfactorily determined. Yet the type, from its unusual character—being neither the regal portrait or arms, nor even a religious effigy or emblem—and the legend, from its quaint abruptness and seeming unfitness to serve as a motto, must always excite a certain curious interest. The pages in Ruding (*Annals*, i. pp. 219—221) which deal with these points are, of course, familiar to every English numismatist; but it may be useful to call attention in the *Numismatic Chronicle* to an interesting paper by the Rev. Dr. Baron, recently published in the *Archæologia* (*On a Hoard of Gold Nobles found at Bremeridge Farm, Westbury, Wilts*, by the Rev. John Baron, D.D., F.S.A. *Archæol.*, vol. xlvii. 1882, pp. 137—156), which seems to throw some additional light upon the subject. It was thought by Selden, who followed a hint thrown out by an anonymous versifier, apparently of the time of Henry VI., that the type of the noble alluded in a general manner to Edward's claim to the sovereignty of the sea. Ruding himself offered the ingenious suggestion that the ship and king commemorated the English victory over the French fleet off Sluys in 1340. He was inclined to consider the reverse legend as a spell against thieves. Although Ruding's explanation of the ship type seems, at first sight, more fanciful than that of Selden—especially as the first noble was not issued till several years after the event to which it was supposed to refer—it receives considerable support from a passage in the *Chronicle of Melsa* (*Chron. Monast. de Melsa*, vol. iii. p. xxxii., 45), which is cited by Dr. Baron, for the first time, we believe, in this connection.

The armed figure in the ship and the legend derived from St. Luke (iv. 30) are there distinctly explained by the writer, Thomas de Burton (elected abbot of Meaux in Yorkshire, A.D. 1396), as not only commemorative of the victory at Sluys, but even of a particular incident in the engagement. The passage in question runs as follows:—"Ipsæ autem naves Francorum prius catenatæ erant, ne ab invicem possent separari. Sed ante primum congressum, Edwardo rege cum sua classe fugam simulante, catenas suas rumpebant, et regem Edwardum inordinate sequebantur. Quod videns Edwardus rex, ordine disposto per medium ipsorum transibat, et de illis victoriam. . . adeptus est. Quapropter ipse rex Edwardus impressionem monetæ suæ aureæ fecerat commutari. Unde in suo nobili. . . ex una ejus parte navem cum rege armato in eo contento, regio nomine circumscripto, et ex altera ejus parte crucem imprimi constituens, hanc circumscriptionem adhibuit '*Jesus autem transiens per medium illorum ibat.*'" Even if it be objected that this statement of De Burton's does not conclusively prove what was actually in the mind of Edward and his mint-master when they designed the dies for the noble, it is at least important as an indication of the popular belief as to the meaning of the coin; and this is perhaps as near as we can get to the truth. The reverse legend, which is thus required to be read in connection with the obverse type, would by no means—as Dr. Baron well shows—be considered as eccentric or perplexing; for that it was a passage of scripture in familiar use at this period as a motto or pious ejaculation may be gathered from its appearing (i.) as the inscription of a gold ring of the fourteenth century, found at Montpensier in Auvergne; (ii.) from its occurring in treatises of alchemy; and (iii.) from its being the text carved upon the wooden front of a druggist's shop (*temp.* fourteenth century) formerly attached to a house of the Templars in Toledo. Lastly, it is mentioned in the well-known passage of Maundeville (*Travels*, chap. x.):—"And therefore seyn sum men, when thei dreden hem' of Thefes on any Weye, or of enemyes; *Jesus autem transiens per medium illorum ibat*; that is to seyne, Jesus forsothe passynge be the myddes of hem, he wente: in token and mynde, that oure Lord passed thorghe out the Jewes crueltee and scaped safely fro hem; so surely mowe men passen the perile of Thefes."

W. WROTH.

MODE OF COINING HAMMERED MONEY IN PERSIA.—Mr Ernest Ayscoghe Floyer, F.R.G.S., F.L.S., who in 1878 visited Kirman, in southern Persia, gives the following account of his visit to the Mint.

“One day I visited the mint, a fine dome-shaped brick building, but the grubby, ragged appearance of the trusty men in charge was curious.

“The Khan buys up dollars and old kran¹ of other mints than his own, and melts and restamps them. The mint was in full blast when I saw it. On one side the silver was being drawn out into a thick wire by a clumsy wooden apparatus. On another, a man was chopping it up into short lengths, with a rapidity and exactness that could only have been acquired by very long practice. The next process was weighing the lengths (and nearly all were right). They were then thrown into a charcoal brazier near the die-cutting anvil, and here was the smartest operation of all. The anvil itself was a hard steel spike bearing one face of the die. One man stood by with a pair of tongs, a second with a small hammer bearing the second face of the die, and a third with a huge hammer. The first man seized a “dab” of silver from the brazier, and with unerring certainty placed it on the centre of the narrow anvil. Almost at the same instant man number two placed his hammer exactly on it, and thump came number three with a blow which flattened it and imprinted the die on both sides. They struck thirty-three or thirty-eight per minute, I am not sure which, as the second figure has become blurred in my note-book.”²

In the quarterly statement of the Palestine Exploration Fund, July, 1880, I find quoted from the *Zeitschrift* of the German Palestine Association, an account of some coins discovered in 1872 in Jerusalem, among which is one struck in Kirman in 311 of the Hegira, *i.e.* about 947 years ago.

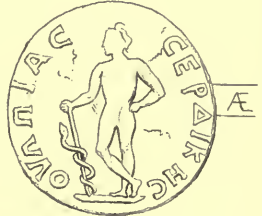
AQUILLA SMITH.

¹ A kran is worth tenpence English.

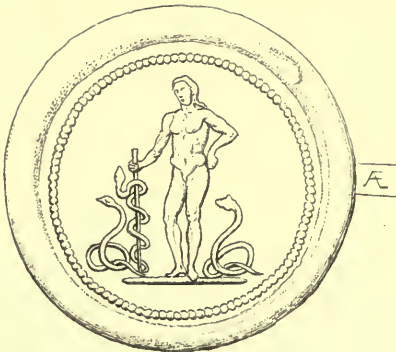
² “Unexplored Baluchistan,” 8vo., Griffith and Farran, London, 1882, p. 323.



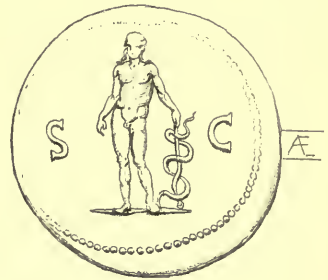
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XIV.

APOLLO WITH THE ÆSCULAPIAN STAFF.

THE attributes and symbols of Apollo are perhaps more numerous than those of any other deity in the Greek Pantheon. They are at the same time among the most familiar. Whether the great Sun-God be represented with the branch and patera of lustration, or grasping his all-powerful bow; whether he appear before us clad in womanly raiment, his lyre in hand; or whether, again, his presence be denoted by tripod or by omphalos—his identity is seldom a matter of doubt. But to these and other Apolline adjuncts equally well known it would seem that another should now be added, the snake-encircled staff of Æsculapius. Instances on coins of this object appearing (during Imperial times) in the hand of Apollo have been recently brought forward by Dr. von Sallet in a short notice published in the *Zeitschrift für Numismatik* (vol. ix. (1881), pp. 139—141). These are :—

- (a.) The representation of a naked male figure, beardless, standing, facing, with head turned l., his legs crossed; his right hand holds the Æsculapian staff, his left is placed upon his hip. (Reverse of a copper coin of Serdica struck under Caracalla. See Plate XIV., Fig. 2.)

(β.) A naked male figure, beardless, standing, facing; his right hand holds the Æsculapian staff, his left is placed upon his hip; on each side of him is a serpent with head erect. (Bronze medallion of M. Aurelius [Cæsar]. See Pl. XIV., Fig. 3.)

To these I would now add (γ) the reverse type of an aureus of Caracalla, described in Cohen's work [*Méd. Imp.*, "Caracalla," No. 242 (1st ed.)], and in Mr. Madden's account of the Blacas Collection (*Num. Chron.*, N.S., vol. viii., p. 2, No. 188), but which I have never anywhere seen figured or alluded to in the present connection; and (δ) the reverse of a sestertius of Galba, which has not hitherto been figured, though it has already been noticed by Mr. Evans in the *Numismatic Chronicle* (vol. vii., N.S., p. 3).

(γ.) *Obv.*—**ANTONINVS PIVS AVG.** Head of Caracalla r., laureate.

Rev.—**PONTIFEX TR P X COS II.** Naked male figure, beardless, and with hair short, standing, facing, in a distyle temple, in the pediment of which is a wreath; his right hand grasps a long snake-encircled staff which reaches to the right armpit, his left is placed upon the hip. The figure stands on a very low pedestal, on either side of which is a serpent with head erect. (*Aureus*. British Museum Collection. See Pl. XIV. Fig. 1.)

(δ.) *Obv.*—**SER SVLPI GALBA IMP CAESAR AVG P M TR P.** Head of Galba r., with ægis on breast.

Rev.—**S C.** Naked male figure, beardless, and with hair falling in two long tresses on the shoulders. He stands, facing, and holds in left hand the snake-encircled staff; his right hangs down by his side. (*Sestertius*, British Museum Collection. See Pl. XIV. Fig. 4. Cp. Cohen, *Méd. Imp.*, ed. 1880; "Galba," Nos. 265, 266.)

Without, for the moment, taking into consideration the various details in which these four representations differ one from another, we observe that they agree in por-

traying a male beardless figure, who is naked, and holds the snake-encircled staff. The identification of this figure is not, however, to be settled offhand; for though the staff is certainly the staff of Æsculapius, the figure itself is suggestive rather of Apollo. In the notice already referred to, Von Sallet states, as his opinion, that the deity represented is Apollo; while he admits, at the same time, the possibility of his being the youthful Æsculapius. The German numismatist has not entered upon any discussion of the point; but it is not difficult to suggest reasons which should induce us, I think, to insist more strongly than he has done that the divinity in question is Apollo.

In the first place, though it is quite true that Æsculapius was occasionally depicted as a youthful and beardless personage, there is no evidence, in the authors, of his being at the same time represented *nude*. On the contrary, in the few representations of the beardless Æsculapius which are now extant, the god is found *draped*, wearing the himation, in fact, just as it is worn by the well-known bearded Æsculapius (Wieseler-Müller, *Denkmäler*, pl. lx., n. 775, n. 776).¹ The absence of drapery, on the other hand, would well agree with the supposition that the figure is Apollo; in the long tresses, too, which are visible in Fig. 3 and Fig. 4, we have a treatment of the hair which would admirably suit the more feminine type of Apollo. And that Apollo in his

¹ In a paper which will be published in a future number of the *Journal of Hellenic Studies*, I have endeavoured to show that the statue in the British Museum (Brit. Mus. *Guide to Græco-Roman Sculptures*, Pt. II. (1876), p. 48, No. 114) representing a youthful male figure holding the serpent-staff, is a young Æsculapius, and not, as it has hitherto been named, Aristæus. This figure has the ordinary drapery of Æsculapius.

role of medical divinity should display the peculiar symbol of his son Æsculapius—the God of Medicine proper—has nothing in it very surprising; indeed, we sometimes find Æsculapius himself borrowing the tripod and omphalos of his father.²

If, then, we determine the god to be Apollo, we may suppose that these four specimens, belonging to the times of Galba, Aurelius, and Caracalla, reproduce some type—tolerably familiar at Rome—of Apollo in his special character of a divinity of healing. This Apollo must have been a naked, beardless figure, holding the staff of

² It may be added in a note that Dr. von Sallet refers to two Roman medallions whose types may possibly be regarded as belonging to the same class of representations as the four specimens described above: (i.) Medallion of Antoninus Pius; *rev.* Youthful male figure [Apollo?], standing l., his right hand on snake-encircled staff, his left placed upon his hip; before him, *thymiaterion*; behind, tree. Drapery (*chlamys*?) hangs from the left arm. (First published by Mr. Evans in *Num. Chron.*, N.S. vol. vii. p. 1.) (ii.) Medallion of Hadrian; *rev.* Female figure wearing *peplum*; her left hand is placed upon the shoulder of a youthful male figure wearing wreath (?), but no drapery, except a mantle flowing from the left shoulder over the arm. He stands facing, holding in right hand a staff encircled by a serpent, which his companion feeds with her right hand. Behind him, statue on a column holding uncertain object. The female figure has been called Salus; the male has been variously described as Æsculapius, Herakles, Apollo, and Antinous (as Apollo). Grueber, *Cat. Rom. Medall.* in British Museum, p. 4, No. 6; and Madden in *Num. Chron.* N.S. vol. i. p. 97. I add the following references to various specimens with representations in some respects akin to those mentioned in the text:—(i.) Coin of Rhegium, Brit. Mus. *Cat. Grk. Coins, Italy, Rhegium*, No. 87. (ii.) Coin of Mytilene, (*Ῥ. παγκρατίδης*); see *Zeit. f. Num.*, Bd. 5, p. 330. (iii.) Roman Medallion (?), see Ch. Robert, *Médaillons Contormiates* (Paris, 1881), Pl. 8, No. 4 (naked figure with serpent-staff, beardless?). (iv.) Coin of Zacynthus, Mion. t. ii., p. 206; *Planches*, Pl. 73, 3, and Prof. P. Gardner, *Types of Greek Coins*, Pl. 8, 33.

Æsculapius; but the details of the representation as given on the coins are somewhat varied. Thus the Æsculapian staff is represented either long (Fig. 1) or short (Figs. 2, 3, 4); it is held in the right hand (Figs. 1, 2, 3) or the left (Fig. 4). The hand not engaged in holding the staff is made to touch the hip, though in one instance (Fig. 4) it hangs down by the side. Further, on the medallion of Aurelius (Fig. 3) we find the youthful figure represented not only with the serpent-staff, but with a serpent on either side of him. It will be at once noticed that our *aureus* of Caracalla (Fig. 1) likewise shows this additional and remarkable detail. In the latter case, moreover, the god and his serpents are placed within a temple, and the figure itself is raised like a statue upon a low pedestal.

It may, then, not unreasonably be supposed that in this more elaborate picture we have a reproduction of some Roman temple-statue of the medical Apollo—a group in which the god was presented undraped and holding the serpent-staff of Æsculapius, while a serpent, with head erect, appeared on either side of him. This group may be considered as substantially reproduced in its entirety upon our two specimens with the serpents (Figs. 1, 3); while, on the remaining pieces (Figs. 2, 4) we get only a reminiscence of the principal motive. Although the literary sources, so far as I can discover, contain no record of such a temple-statue of Apollo, its existence is not perhaps a very violent hypothesis to base upon the specimens which we have now described: in any case it may be hoped that future discoveries or further research will throw some additional light upon this limited but interesting series of representations.

WARWICK WROTH.

XV.

UNPUBLISHED COIN OF JOHN HYRCANUS.

SINCE the publication of Mr. F. Madden's new work last year on the Coins of the Jews, I have obtained for my collection an inedited coin of John Hyrcanus I., with a new type altogether. The type is similar to that coin of Alexander Jannæus, published by me in the *Num. Chron.*, N.S., 1862, vol. ii. Pl. VI. No. 3 (*vide* Madden's "Coins of the Jews," p. 85, No. 2). The description of the coin is as follows:—

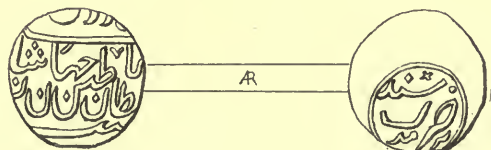
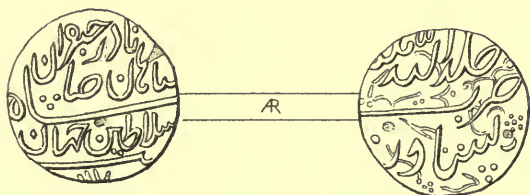
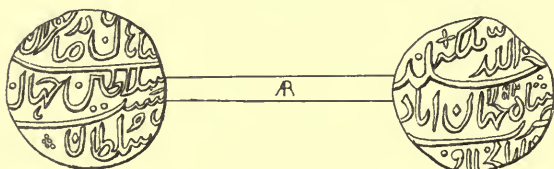
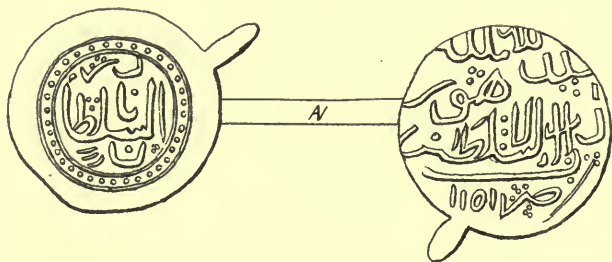
Obv.— יחורחנן written in four lines, in the middle
הכהן הגדול a branch placed horizontally.
וחבר ה
יהו

Rev.—A half-opened flower within a circle.

Æ. 1½ according to Mionnet's measure.

The signification of the word *חבר* on these coins seems still a debatable one. Dr. Geiger¹ suggests that the great Jewish Senate was thus called, advancing as a proof these very coins of John Hyrcanus without any further evidence from other Jewish sources. This venerable assembly is mentioned in the Mishna and both Talmuds by the name of *בגסות הגדולה*, Tract. Aboth i. 1, Toma 69 b, Bava Bathra 15a, and likewise by a Greek word *σκηδρῖν*. If

¹ Urschrift, pp. 121, 124.



this renowned assembly was called by a name derived from the root חבר, one would expect, from the nature of the language, a feminine noun, like חבורה; and in connection with the following word the Sanhedrin or Jewish Senate should have been known by חבורת היהודים, and not, as on the coin, חבר היהודים.

The word חברן on the Marseilles inscription² does not imply that the Suffetes were called thus because that they were the representatives or members of the Senate, but because that as Suffetes they had to possess a certain amount of *knowledge*, and in consequence were called by the very word found on our coin.

The high priest was *ex officio* the president of the Jewish Senate, and if these coins were issued by the joint authority of the high priest and the Senate, the coins with the legend ראש חבר היהודים seem, in my opinion, not to permit such an hypothesis to be entertained. At all events these latter coins imply that they were issued by the sole authority of the high priest who is styled at the same time as the chief chaber of the Jewish nation.

HENRY C. REICHARDT.

² *Vide* Madden, p. 77.

XVI.

WHEN WAS MONEY FIRST COINED IN IRELAND ?

FOR more than half a century I have been familiar with certain coins found in great number in Ireland. They are usually termed Hiberno-Danish, but Hiberno-Scandinavian would be a more appropriate term, because the foreigners who established settlements in Dublin and other places were not only Danes, but Norwegians, Swedes, and Goths.

I felt no disposition to study these coins with attention, because I saw that many of them were very rude in-workmanship, and that the characters on them were often manifestly unintelligible; while on many others some of the letters were unmistakable, but so collocated as to defy any attempt to identify the legends with the names of persons or places recorded in history.

Having recently undertaken to arrange about four hundred of these coins in the Museum of the Royal Irish Academy, I was encouraged after a cursory examination to pursue the study of them, more particularly with the object of determining the chronological order of the numerous varieties of types with greater precision than previous writers on this subject had attained.

Simon, in the first sentence of his *Essay on Irish Coins*, (Dublin, 4to, 1749), while admitting that "we cannot

trace out the first invention of money in Ireland," confidently says, "yet it cannot be denied, that it was in use here long before the arrival of the Danes or Norwegians."

In 1639 a great quantity of coins was discovered at Glendaloch, in the county Wicklow, six of which were published by Sir James Ware, and were copied in Simon's pl. i. figs. 12 to 17; from an examination of which and other coins published in his *Essay*, he concluded that, "Their rude and coarse make denotes them to be very antient, and that they were current here long before the arrival of the English, and some of them, perhaps, before the Danes were settled here." (P. 5.)

Ledwich, in allusion to the writings of Keating and O'Flaherty, and the speculations of Sir James Ware and others on Irish coins, says, "We must be at a loss to discover by what rules Irish antiquaries conduct their inquiries concerning Irish money, for they are evidently not those of learning and good sense, as they would have produced something sober and rational on the subject; whereas we see nothing but the wildest whimsies, and all the exorbitance of romantic and licentious assertion." (*"Antiquities of Ireland,"* 4to, Dublin, 1803, p. 211.)

Although Ledwich did not altogether abstain from speculation, he came to the "sober and rational" conclusion that, "There was no mint in Ireland antecedent to the ninth century, and that erected by the Ostmen." (*Ibid.* p. 216.)

Mr. Lindsay, in the Preface to his "View of the Coinage of Ireland" (4to, Cork, 1839), after duly acknowledging the "deep research exhibited by Simon," in his *Essay on Irish Coins*, says, "The Hiberno-Danish, however, seem to require a far closer investigation than

they have hitherto received, and the large hoards of them discovered during the last twenty years, may naturally be supposed to facilitate such investigation. The subject is, however, one of extreme difficulty, requiring the deepest attention to those coins, and the closest comparison of them with the contemporary ones of England, Denmark, and Norway, together with such a knowledge of the names, order of succession, and dates of the reigns of the Hiberno-Danish princes, as the confused and often contradictory records of those times have handed down to us."

This clear and comprehensive view of the subject is in no respect exaggerated, and it shows how fully Mr. Lindsay appreciated the difficulty of the task which he imposed on himself. The first words in his "View" are, "At what period money was first coined in Ireland, is now nearly impossible I believe to ascertain;" and in the same page he states, "that no Irish coins have yet been discovered, which can with any degree of probability be assigned to a period earlier than the arrival of the Danes," which opinion I believe to be correct.

Mr. Lindsay has shown that some of the rudest coins found in Ireland, "are evidently copied from those of the Anglo-Norman princes" (p. 20). The "rude and coarse make" instead of denoting them to be very ancient, as Simon supposed, is in my opinion very clear proof of the deterioration of the art of coining in Ireland, subsequent to the establishment of a mint in Dublin by Sihtric III., the Danish King, A.D. 989—1029.

Mr. Lindsay's six elaborate Tables containing "Descriptions and Legends of the Hiberno-Danish coins appropriated to particular princes," show how confident he felt that, "An examination of the rude and imperfect

legends on the Danish coins will enable us, without much difficulty, to trace the names of Anlaf, Sihtric, Ifars, and Regnald; but there being several princes of each of these names, not only in Dublin, but even Waterford and Limerick, it becomes a matter of extreme difficulty to appropriate them, nor can we be certain of assigning more than three or four of them to their proper princes; many others, however, may, I think, be classified with a reasonable probability of being right." (P. 8.)

To facilitate the chronological arrangement of the Hiberno-Danish coins, Mr. Lindsay compiled a Table of the succession of the Danish Kings of Dublin, Waterford, and Limerick, from the most authentic materials at his command. The Danish Kings of Dublin, "being generally considered as the supreme heads of all the Danes in Ireland," he commenced his investigation with Anlaf I., the first Danish prince of Dublin, A.D. 853.

Mr. Lindsay not having met with any coins which appeared likely to belong to Anlaf, he proceeds to consider certain coins which he was "strongly inclined to think belong to his brother Ifars or Imar I., who was, at first, King of Limerick [A.D. 853], but, on the death of his brother Anlaf, in 870 [became] King of the Danes of all Ireland. It is, also, supposed that this prince is the same who was chief of the Danes in England at that time." (P. 8.)

Simon published a coin of fifteen grains weight, pl. i., fig. 34, and from the inscription on the obverse he was led to think that it probably was coined by Ivarus, who, Sir James Ware says, is styled in the Irish Annals, *King of the Normans of all Ireland*, and who died in 872. (P. 6.)

Mr. Lindsay remarks on this and other similar coins which have been generally assigned to Ifars I., that it is

“nearly certain that they do not belong to him, but to Ifars II.,” on the grounds of “their extreme resemblance to the coins of Sihtric III., who began to reign in 989, and who was expelled from Dublin in 993 by Ifars II., and who was himself expelled by Sihtric in the following year.” (P. 8.)

Having dissented from Simon’s appropriation of the coin to Ifars I., he says there are other coins, previously unpublished, and probably not known to either Simon or Snelling, which “are likely to have been struck by the first Ifars,” the type of which is, “that they bear a full face with forked beard, and a legend scarcely intelligible.” (P. 8.)

It is not necessary to quote Mr. Lindsay’s ingenious but unsatisfactory arguments in favour of his appropriation to Ifars I. of the coins first published by him (pl. i., fig. 1 and 2), from which he concludes that, “We must, in any case, place them at the head of the Hiberno-Danish series; no others that I have met with appearing as old as these, and very few older than the time of Ethelred.” (P. 10.)

Having made these coins the basis on which his chronological arrangement is founded, and also from his opinion that it was possible, “without much difficulty, to trace the name of Anlaf, Sihtric, Ifars, and Regnald,” it is essential to state the chief objections to his “view” of these coins.

As Mr. Lindsay’s “View of the Coinage of Ireland” may not be in the hands of many members of the Numismatic Society, and because he attaches so much importance to the type of the coin under consideration, an accurate representation of one in the Museum of the Royal Irish Academy is introduced.

The full face is like that on the Irish half-pence of John; the eye-brows, the two rows of side curls, and particularly the crown with three pearls, resemble the type of the short-cross English pennies of Henry II., which have been found in great number in Ireland.

The long double cross with each limb terminated by three crescents, on the reverse, first appears on one of the types of the Saxon sole monarch, Æthelred II., and is identical with the reverse of some of the undoubted Dublin coins of his contemporary, Sihtric III.

The branch-like symbol, usually called a hand, in one of the quarters of the cross, does not occur on the coins of



11.2.grs.

Sihtric III., while it is found, in one or two quarters of the cross, on a multitude of Hiberno-Danish coins of a later period.

The type of the reverse may be seen on several coins published by Lindsay, pl. ii., figs. 37, 38, 39 and 40, which are attributed by him to Ifars II. K. Limerick?, who died A.D. 940, and also on figs. 42, 44, 45, 46, and 47, which are admitted to be "uncertain."

Moreover all these coins have on the obverse what Mr. Lindsay calls "the King's head with Irish helmet" (p. 11), in profile, some to the right, and some to the left; the latter type copied from a Saxon coin of Æthelred II.

on the Dublin coins of Sihtric III., a century at least after the death of Ifars I.

As to the legend which is admitted to be "scarcely intelligible," it would be more correct to say that it is impossible to identify it with Ifars, or the name of any other person recorded in history, if the characters are to be read as letters of the Roman alphabet.

The weights of the two coins published by Lindsay are respectively nine and a half, and ten and a half grains (Table 2), and of the coin in the Royal Irish Academy, eleven and two-tenths grains; a fact which suffices to convince me that these coins belong to a period much later than the undoubted Dublin coins of Sihtric III., the average weight of thirty-five of them being about twenty grains.

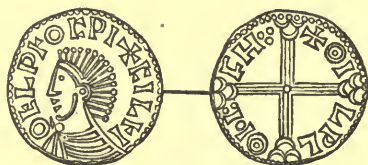
It seems therefore that Mr. Lindsay's attempt to identify these coins with Ifars I., in order to prove that money was first coined by him in Ireland, has utterly failed, and that further inquiry is necessary to determine which of the Hiberno-Danish kings first established a mint.

Mr. Lindsay was unable to discover any coin which could "be classed with any degree of certainty," within the long interval of ninety years, between the death of Imar or Ifars I. in 872, and the accession of Anlaf IV. in 962, and to account for this wide gap in his chronological series, he says, "It is more than probable, several of the rude coins we have were struck by the Danish princes of Dublin, who reigned during the interval." (P. 11.)

The coin which Mr. Lindsay published as belonging to Anlaf IV. (pl. i., fig. 3), is in the Royal Irish Academy. He notices the fact that, "it is of the same type as those of the common Irish type of Sihtric III. and Ethelred." He considered the blundered legend to be intended for

“Olaf Rex Difi,” and “the King’s name seems repeated on the reverse, in a still more intelligible (?) manner,” and mentions that it weighs twenty-eight grains, “as some of the [Irish] coins of Ethelred and Sihtric nearly do.” He adds, “There is, indeed, a possibility of its being struck by Anlaf V., 1029, but from its type and weight, I have little doubt that it belongs to Anlaf IV.” His observation on the weight is noticeable, because he did not make any remark on the very light weight of the coins he attributed to Ifars I.

As the appropriation of this coin to a Danish King of Dublin is questionable, it is necessary to present a more accurate representation of it than that given by Lindsay.



27.4.grs.

The long double cross with three crescents at the end of each limb, is good evidence that this coin was not struck before A.D. 970, when Æthelred came to the throne in his tenth year, and on one of whose coins such a cross first appeared, and this type was copied and introduced into Ireland by his contemporary, Sihtric III., on coins minted in Dublin.

Mr. Hawkins, in his description of this type, mentions, “The close resemblance of the [cross on the] reverse to that of Cnut’s types 4 and 7 (210 and 212) seems to prove that this, as well as type 1, which is closely connected both with it and with Cnut’s type 2 (209), was

struck late in Æthelred's reign." ("Silver Coins of England," second edition, 8vo, 1876, p. 150.)

In the year 1704, a very large hoard of coins was discovered in Sweden, among which were several of Olaf I., King of Sweden, and of Æthelred II., sole monarch of Saxon England. Keder¹ published engravings of several coins of Olaf, together with two different types of coins of Æthelred² to show the similarity of the coinages in the two countries.

The type of the coin published by Mr. Lindsay bears a close resemblance to fig. 8 in Keder, who after describing the two different types of the new Swedish coins, observes, "Mirum, quantum AETHELREDI, Anglorum Regis, OLAO amicitiae fœdere juncti, nummos imitentur, et literis nempe, et linguâ, et epigraphis, et figuris." (P. 46.)

From the type of this coin and the evidence quoted from Keder it is probable that it was coined by Olaf I. of Sweden, and not by Anlaf IV., the predecessor of Sihtric III., King of Dublin.

Olaf, Skot Konung or the Tribute King, believing that the use of the Runic characters had retarded the spread of Christianity in Sweden, held a conference with his nobles, A.D. 1001, and determined to substitute Latin characters instead of Runes. A great controversy arose and Olaf was encouraged to persist in abolishing the use of Runes by Pope Sylvester II., and also by Bishop Sigfrid, who had been sent to Sweden by Æthelred from England. (Keder, p. 47.)

¹ Nummi aliquot diversi ex argento præstantissimi, omnes tellure Suecicâ olim absconditi. Lipsiæ, 4to, 1706.

² Ruding, pl. xxii., figs. 2 and 4.

It remains now to notice certain conjectures of Simon and Lindsay respecting numerous coins of extremely rude workmanship found in Ireland.

Woodcuts of six of the coins found at Glendaloch in 1639, and first published by Ware in 1654, were copied in Simon's pl. i., figs. 12 to 17; from the consideration of these and other coins in his possession, he inferred that they were very ancient, and that some of them were current in Ireland before the Danes were settled there, and on comparing them with the coins, figs. 30, 35, and 36 in his pl. ii., he supposed "that the Irish, from their intercourse with the Danes, were much improved in the manner of striking their money." (P. 5.)

The types of these coins bear strong evidence against the correctness of Simon's conjecture; not one of them presents an intelligible legend, and many of them have only straight lines arranged in a circle instead of letters; those which have a head on one side are evident but very rude attempts to copy early Hiberno-Danish coins of good workmanship, and with intelligible legends. One of the coins published by Ware has CRVX, within the quarters of the short cross on the reverse, like a Saxon coin of Æthelred II., but it has straight lines instead of a legend.

These facts are good evidence that if the rude coins were struck by the Irish, their manner of striking money was not improved by their intercourse with the Danes. Mr. Lindsay was so satisfied with the correctness of his appropriation of the coin bearing, "a full face with forked beard, and a legend scarcely intelligible," to Ifars I., that he clung to the opinion that, "it is more than probable, several of the rude coins we have were struck by the Danish princes who reigned during the interval" (p. 10)

of ninety years between the death of Ifars in 872, and the accession of Anlaf IV. in 962.

Like Simon, Mr. Lindsay has published evidence which refutes his own opinion. In his pl. viii. he gives the reverses of ten English coins from Harold I. to Henry II., to illustrate the types of the Irish Bracteates of that period, and in his Supplement, pl. iii., he gives drawings of extremely rude imitations of coins of William the Conqueror, and also of early Danish coins, in which the attempt to represent the human face is grotesque in the extreme, and straight lines are substituted for letters, characteristics which demonstrate the degradation of the moneyer's art in Ireland previous to the English invasion by Henry II.

No satisfactory evidence has yet been produced that money was coined in Ireland before the authority of the Danish or Scandinavian Kings was established, and if my objections to Mr. Lindsay's appropriation of certain coins to Ifars I. and to Anlaf IV. be admitted to be well founded, the chronological series of the Hiberno-Danish coins will commence with Sihtric III., King of Dublin, who was contemporary with Æthelred II., sole monarch of Saxon England.

AQUILLA SMITH.

September, 1882.

XVII.

ON SOME COINS OF NĀDIR SHĀH STRUCK IN INDIA.

NĀDIR SHĀH obtained possession of Kābul on the 12th of Rabī ul awwal, 1151 A.H. He had been engaged in its siege from the 3rd of that month, or only nine days. Passing through Gandamah he took Jalālābād on the 30th of Jumādī ul ākharī. He stayed at Jalālābād until the 10th of Shabān. He seems, after some preliminary difficulties had been overcome, to have bribed the Affghān tribes of the Khaibar Pass. They took him and his army by the shortest routes, and, in consequence, his appearance near Peshawur was so unlooked for that it caused great consternation in the army of Nāsir Khān, the governor. Defeating this brave general, he took the city. After this the road to the Indus was open. Crossing it at Attock his army met with no opposition until his arrival at Wazīrābād (or, according to some, Yamīnābād), where Kalandar Khān, opposing him, was defeated and slain by Nāsir Khān, the old governor of Peshawur, who had been won over to Nādir's cause. Zekariāh Khān, governor of Lahore, hearing of the defeat and death of Kalandar, marched out with an army of 20,000 men about twenty miles from Lahore. But his van being defeated, he returned in haste and capitulated, after a show of defence which lasted only three days, on condition that the city should be spared. Nādir Shāh took up his residence in the

Shalimār (شعله ماد it is spelt in the Persian MS.), and Zekariāh Khān there presented him with twenty lakhs of rupees (زر = gold, perhaps in gold), and some elephants. On the 26th of Shawwāl, Nādir, after a stay of eight days in Lahore, left for Dehlī. He arrived in Sarhind (سهرند on the Mogul coins of the period) on the 7th of Zu'l Kadah, at Rājah Sarā on the 8th, at Amballa on the 9th, at Shābābād on the 10th, at Thānesar on the 11th. On the 13th Nādir arrived at the Sarā of Azīmābād; on the 14th he drew near to Pānipat. On the 15th he drew up his army on the plain between the Alī Mardān Canal and the river Jumnā, and defeated the army the Mogul Emperor of Dehlī, Muhammad Shāh, had sent against him under Nizām ul Mulk and Devran Khān, the latter of whom was mortally wounded. Four days after this battle Muhammad Shāh made his submission to Nādir. The result of this submission was that the military chest, all the artillery of the Mogul Emperor, the persons of the Emperor, and his sons and his Empress and their domestics, the palace of Dehlī and its contents, the city of Dehlī and its treasure, in short, all northern India came into the hands of Nādir. He arrived at Dehlī on the 9th of Zu'l Hajjah, 1151 A.H. On the 11th there was a disturbance in the city, and several of Nādir's soldiers were slain. The next morning, the 12th, Nādir ordered a general massacre of the inhabitants of Dehlī. It is supposed that over a hundred thousand were slain. On the 25th of Zu'l Hajjah, Nasar Ullah Mirza, the young son of Muhammad Shāh, visited Nādir Shāh. The next day the son of Nādir married the daughter of Muhammad Shāh. Thus ended the year 1151. The month of Muharram seems to have been spent by Nādir in collecting treasure, and in those acts of oppression and cruelty

necessary to such a proceeding. On the 1st of Safar, 1152, Nādir held a darbār, and distributed gifts to the nobles of the Dehlī court. On the 7th of Safar he left Dehlī on his way back to Persia. Thus he stayed in Dehlī from the 9th of Zu'l Hajjah, 1151, through the month of Muharram, 1152, and up to the 7th of Safar, in all fifty-eight days, thirty-seven of which were in 1152. He made good use of his time in returning, for he arrived at Wazīrābād on the 27th of Safar. Thence going by the way of Hasan Abdāl, Attock, and Peshawur, he returned to Kābul on the 1st of Ramzan, 1152. Thus, from his obtaining possession of Kābul in 1151 to his return in 1152, his Indian campaign had taken up but 520 days. I have said nothing at all about the events of the march. They are all known as histories of Nādir, and are not scarce.

It may be as well to state that the year 1151 A.H. commenced on the 10th of April, 1738 A.D., and 1152 A.H. on the 30th of March, 1739 A.D. Hence Nādir arrived in Dehlī in March, 1739 A.D. His campaign in India therefore, from Peshawur to Dehlī, resolves itself into a winter one, extending over the whole of the cold season of 1738-9. His stay in Dehlī extended through March and April, and he left Dehlī about the 7th of May. His twenty days' march to Wazīrābād would be an excruciatingly hot one. After leaving that town he seems to have gone by easy stages, for it took him six months to get to Kābul.

Having thus glanced at the chronology of Nādir's invasion, let us look at the coins we have been able to obtain to illustrate it. As Nādir was always on the move, he left no buildings or public works behind him to perpetuate his evil name. The mosque on the top of which

he sat at Dehlī watching the massacre is still shown in the Chāndee Chauk. The gardens at Lahore, too, are still in existence. The track of ruin and devastation which marked his coming and return has long since been overgrown by jungle or obliterated by the prosperity which has succeeded our occupation of the country. His coins alone remain to show that his presence once cursed the land. *Factum abiit, monumenta manent.* And the only monuments of Nādir are his coins.

First of all we have the large double gold mohur. Double mohurs are sometimes called *naziāna* mohurs, because they are presented to superiors. This mohur weighs, with the hoop which is attached to it, 366 grs. The inscriptions are:—

Obverse in double circle with dots between. نادر السلطان

Reverse. ضرب دار السلطنة لاهور ۱۱۵۱ خلد الله ملكه

Now Nādir stayed at Lahore only eight days in going to Dehlī. During that time, as we have seen, Zekariāh Khān, governor of Lahore, presented to him twenty lakhs of money (بيس لک زر) *zars*, or gold or money generally; but it was probably in rupees. As we find the word زر used, we may suppose that payment was made in gold to some extent. Whether this coin was made by Zekariāh Khān or not we cannot tell. The gold was probably presented by him and then coined by Nādir, who certainly ordered coins to be struck while he was in Dehlī. This mohur is a coin of very poor workmanship. It bears every appearance of having been prepared in a great hurry, and the dies must have been cut by a very coarse, clumsy workman. Twenty-six years after this, when the Sikh Commonwealth struck their first rupees in Lahore,

they produced very much better coins. Two rupees which I have of Muhammad Shāh, struck at Lahore in his first and second year, 1131 A.H. and 1132, or twenty years before this mohur, are of beautiful execution. Hence I am inclined to think that the dies for this mohur were cut in a great hurry in Nādir's camp in the Shalimar gardens, and probably by a Persian artificer. The style is similar to some of his Meshed coins. The title of the city, دار السلطنه, is the one which always occurs on the coins of the Moguls. The date, 1151, enables us to state that the coin was struck on the occasion of Nādir's march to Dehlī, and not on his return.

Our second coin is a rupee of Nādir's, struck at Dehlī.

Obv. سلطان هست بر سلاطين جهان شاه شاهان نادر صاحب قران

Rev. ضرب دار الخلافه شاه جهان اباد 1151 خلد الله ملكه

Weight, 178·1 grs. Duplicate, British Museum.

The title, صاحب قران, was affected by Shāh Jahān, and also by Muhammad Shāh. There is nothing to call for remark about the fabric or inscription of this coin. The dies were evidently cut with care. After the massacre Nādir stayed in Dehlī over fifty days. The coin was probably struck during the last days of Muharram, from silver obtained in the sack of Dehlī. We are told by Jonas Hanway, in his "History of Nādir Shāh"—"Nādir, being now master of vast treasures, paid his army their arrears; and in order to encourage them to bring in their plunder, he added a gratuity also. These payments were made in his own coin, which was struck upon this occasion, with this inscription:—'Nādir, the master of fortune and the King of Kings, is the most

powerful prince of the earth.' The reverse was: 'May God preserve his reign.'" The only thing Hanway omits is the mint and the year.

These rupees are far from common. I have seen only one duplicate, the one now in the British Museum, which was obtained by me. I have heard of one other. Hanway says that twelve months' pay to the army of 140,000 men would amount to £3,400,000. We are not to suppose, however, that this large sum was paid in Nādir's rupees. Had it been so these coins would have been common now. We find Muhammad Shāh's rupees in great quantities in Indian bazaars. His mohurs, too, are common. During the late Affghān war his rupees sold for one rupee six annas, up to one rupee eight annas each. On inquiring the cause of this I found that the Affghān merchants had raised a demand for them, only, however, for those struck in Dehlī. These were taken to Kābul, and in the event of a Gāzī being killed, he was buried with one of these on his tongue. I could not get to know anything further about this strange custom. Just at the time I was completing my set of years of Muhammad Shāh's rupees, and trying to do the same for a friend, I experienced considerable difficulty in Lahore, Amritsar, and Dehlī in obtaining any years of the Dehlī mint, at less than an exorbitant price.

Nādir's Dehlī rupees ought to be found in Affghānistān and on the return route of the army rather than in Dehlī. But I have never seen one in any collection of Affghānistān rupees. The truth is, there is not much of an influx of new silver into Affghānistān, and old coins are melted down or restruck. After the last war was over I saw in Amritsar some of her Majesty's four anna pieces, which had been restruck by either Aiyūb or Abd ur Rahmān.

Some of the letters of the first inscription were still visible on them.

The third coin is also a rupee; weight, 173·3 grs.

Obv. سلطان هست بر سلاطين جهان شاد شاهان نادر صاحب قران
 Rev. ضرب پيشاور خلد الله ملكه

There is no date on the coin visible, so we cannot say whether it was struck on Nādir's going to India or his return.

The fourth coin is also a rupee, struck in *Sind*. Nādir, after his return from Dehlī, stayed in Kābul only six days. Then sending his treasure to Herāt, he went to Sind by the way of Bangash and the Derajāt. He arrived in Dera Ismāel Khān on the 5th of Shawwāl of 1152, and in Dera Gāzī Khān on the 15th. On the 14th of Zu'l Kadah he arrived in Lārkāna, and on the 28th in Amarkote. He left Lārkāna, on his return, in the first month of 1153. Hence it will be seen that, in the winter succeeding his Dehlī campaign, Nādir was chiefly engaged in Sind. The object of his going there was to obtain possession of Khudāyār Khān Abbāsī, who "had refused to pay homage to Nādir." He was governor, says Hanway, of Pekier, or, as I suppose, Blakkar. Amarkote was taken by strategy, and although Khudāyār Khān escaped, he afterwards capitulated and "gave up all his riches."

Obv. سلطان هست بر سلاطين جهان شاد شاهان نادر صاحب قران
 (only a small portion of this comes on the coin)

Rev. بروند ضرب سند

There is no date again on this coin. We may, however, safely assign it to the year 1152, as in 1153 Nādir was on his way back to Persia, commencing his march

from Lārkāna in the first month of the year. The word *برمذ* on the coin is probably the name of the moneyer. If so it is a unique feature. The name is common for men. It is the name *Ormuz*, also that of the island in the Persian gulf.

I have not seen any copper coins of Nādir. I have not either seen any silver coins struck in Lahore or any gold ones struck in Dehlī. I am just editing a small copper coin of Taimīn Sang, struck in Dehlī during his incursion. There is also a gold one I believe in existence. Hanway tells us that "most of the gold and silver was melted into large ingots, and flung over the backs of camels, horses, and mules." This will account perhaps for the scarcity of Nādir's coins at the present day in India. The plunder which he carried away was in the form of bullion not coins, and the coins of the Empire as well as his own must have been melted down at the same time. We may account ourselves fortunate that the few coins in our possession have been preserved. I know of no public collection in India that has one of them. Private enterprise in that vast and interesting Empire has of late received an impulse in a numismatic direction, and the result is that private collections often contain coins not to be met with in any public cabinets. Another result is that India is gradually being denuded of her "portable antiquities," and these, instead of being kept in India for the study of India's sons, are being spread over the world to the wonder of people who cannot understand, and who cannot, therefore, appreciate them.

C. J. RODGERS.

XVIII.

LETTRE À M. STANLEY LANE-POOLE, SUR
QUELQUES MONNAIES MUSULMANES.

CHER COLLÈGUE ET AMI,—

Je désire vous entretenir aujourd'hui de trois pièces qui méritent d'être signalées aux amateurs de la Numismatique musulmane. Elles font partie du riche Cabinet de M. de l'Ecluse. Ce sont des monnaies de cuivre, mais l'infériorité du métal n'enlève rien à l'intérêt qu'elles présentent.

La première sera désignée, si vous le voulez bien, sous le nom de *Fels d'Abd Allah ebn Dinâr*.

Son diamètre est de 22 millimètres.

Av. Dans un petit cercle fin :

ر	<i>R.</i>
لا اله الا	<i>Il n'y a de Dieu que</i>
الله وحده	<i>Dieu seul.</i>
لا شريك له	<i>Il n'a pas d'associé.</i>

En dehors du cercle, légende circulaire :

مما امر به الامير معا (بغا) على يدي عامله عبدالله بن دا (sic)
(Cette pièce est) de celles qu'a ordonné (de frapper) l'émir
Boghâ par les soins de son agent 'Abd Allah ebn Dâ.

La dernière syllabe est probablement pour *Dâoûd*, la fin de ce nom ayant été omise faute d'espace.

En dehors, second cercle et rebord.

Rv. Dans un cercle plus grand que celui de l'avvers :

عبد الله 'Abd Allah
 محمد • Mohammad
 رسول (est) l'envoyé
 الله de Dieu.
 بن دينار Ebn Dînâr.

En dehors du cercle, légende circulaire commençant à droite, en face de l'الله :

أما برسول الله محمد صلى الله عليه وسلم

Nous croyons en l'envoyé de Dieu, Mohammad, que Dieu le bénisse et le salue !

Tout autour, traces d'un second cercle.

La légende pieuse "Nous croyons en l'envoyé de Dieu, etc.," tout à fait insolite, semble indiquer que la pièce a été frappée par quelqu'un qui était en révolte contre le Khalife régnant. Si nous ne considérons que le nom d'Abd Allah ebn Dînâr, Ebn el Ațîr fait mention d'un personnage ainsi appelé et qui avait embrassé le parti d'Yazîd ebn el Mohalleb, révolté contre Yazîd ebn 'Abd el Malek, le Khalife Omayyade. En effet, lorsque 'Ady ebn Ortât, envoyé contre le rebelle, fut fait prisonnier par celui-ci en l'année 101, 'Abd Allah ebn Dînâr était un de ceux chargés de sa garde.¹ Il mourut en l'année 127 ou, selon quelques-uns, en l'année 136.²

Il est moins facile d'expliquer la présence, dans la légende circulaire de l'avvers, du nom de "l'émir Boghâ" qui ordonna de frapper ce fels. Ce n'est que plus d'un siècle après que nous rencontrons des Boghâ au service des Khalifes 'Abbâsides. Quelle était la province dont le

¹ Ebn el Ațîr, v. p. 54.

² Ebn el Ațîr, v. p. 259.

nôtre avait reçu le gouvernement? De qui tenait-il sa nomination? Son agent ou gouverneur 'Abd Allah ebn Dâoùd nous est également inconnu.

Je laisse à de plus compétents l'étude de ce problème d'histoire musulmane, avec l'espoir que quelque manuscrit en fournira peut-être un jour la solution, et vais m'occuper des deux autres pièces. Les deux fels dont il s'agit maintenant ont été frappés par un personnage mentionné par les chroniqueurs orientaux, Ebn el A'îr et Ebn Khaldoûn, entre autres, sous le nom de *Rostom ebn Bardou*.

Le No. 1 est frappé à El Masîsah (Mopsueste).
Diamètre $26\frac{1}{2}$ millimètres.

Av. En haut, gros point.

لا اله الا الله *Il n'y a de Dieu que*
الله محمد *Dieu ; Mohammad (est)*
رسول الله *l'envoyé de Dieu.*

Tout autour, double cercle orné, à l'intérieur, de petits traits placés en haut, en bas, à droite et à gauche; rebord.

Rv. En haut, gros point.

الله *accosté de deux étoiles. A Dieu.*
رستم *Rostom*
ابن بردو *Ebn Bardou.*
بالمصيصه *A El Masîsah.*

Au bas, ornement.

Tout autour, double cercle et rebord, comme à l'avvers.

Le No. 2 est frappé à Tarsoûs.

Diamètre 26 millimètres.

Av. Dans un double cercle :

لا اله الا الله *Il n'y a de Dieu que*
الله محمد *Dieu ; Mohammad (est)*
رسول الله *l'envoyé de Dieu.*

Rebord.

Rv. Dans un double cercle :

الله accosté de deux étoiles. *A Dieu.*
 رستم *Rostom*
 ابن بردو *Ebn Bardou.*
 بطرسوس *A Tarsouls.*

Rebord.

Les caractères du No. 2 sont plus épais ; ceux du No. 1, au contraire, sont plus maigres.

En l'année 292 de l'hégire (comm. 12 nov. 904),³ Andronîqos *er-roumy*⁴ conduisit une expédition contre Mar'ach et ses districts. Les habitants d'El Masîsah et ceux de Tarsouls sortirent en masse (contre l'ennemi). Abou'r-rédjâl ebn Abî Bakkâr fut atteint à la tête d'une troupe de musulmans. Le Khalife (El Moktafy) destitua alors Abou'l 'Achâir Ahmad ebn Nasr du commandement des villes-frontières et en investit Rostom ebn Bardou. C'est ce dernier qui fut chargé de l'échange des captifs. Le nombre total des prisonniers qui furent rachetés s'élevait à douze cents.

En l'année 299 (comm. 28 août 911), Rostom, l'émir des villes-frontières, commanda l'expédition d'été et partit du district de Tarsouls, accompagné de Damyânah. Il assiégea le château de Melih l'arménien ; puis il entra dans la ville et la livra aux flammes.

Rostom ebn Bardou mourut vers cette époque ; car Ebn el Atîr place en l'année 301 (Comm. 6 août 913) la mort de Damyânah à qui il donne le titre d'émir des villes-frontières *أمير الشعوب*.

³ Ebn el Atîr, vii. p. 371 ; Ebn Khaldoun, iii. p. 357.

⁴ Andronic *le grec*. Il s'agit ici d'Andronic Ducas, renommé pour sa valeur et ses talents militaires. Andronic fut obligé, en l'année 906 de J. C., de s'enfuir de Constantinople ; il se réfugia à Cabala près d'Icône ; puis, toujours poursuivi par les intrigues de Samonas, il se rendit à la cour du Khalife et mourut de misère en prison. Cf. Lebeau, *Hist. du Bas Emp.*, xiii. p. 381-383.

Damyânah (Damien) était grec d'origine.⁵ Il fut sans doute fait captif; il devint, en effet, l'esclave غلام de l'eunuque Bâzmâr, affranchi de Mofleh ebn Khâqân, et embrassa l'islamisme. Lebeau fait mention de Damien sous l'année 902⁶ et dit que ce renégat, célèbre par sa valeur, s'empara, à la tête d'un corps de musulmans, de Séleucie sur la mer de Cilicie.

Damyânah figure dans la Chronique d'Ebn el A'îr dès l'année 284 (Comm. 7 février 897); il se trouvait alors à Tarsoûs⁷ où la discorde éclata entre lui et Râgheb, affranchi d'El Mowaffaq. Voici quelle en fut la cause: Râgheb fit cesser la prière publique au nom d'Haroûn ebn Khomârawayh ebn Ahmad ebn Toûloûn et la célébra au nom de Badr, affranchi d'El Mo'taded. Il fut en désaccord avec Ahmad ebn Toughân. Or lorsque ce dernier fut sorti de captivité en l'année 283, il s'embarqua et s'en alla sans entrer à Tarsoûs; il y laissa Damyânah pour s'occuper des affaires de la ville et le munit de troupes. Fort de ce secours, Damyânah reprocha à Râgheb sa conduite. La guerre civile éclata; Râgheb fut vainqueur et Damyânah, transporté à Baghdâd.

En l'année 287,⁸ El Mo'taded, après avoir fait Wasîf prisonnier, se rendit à El Masîsah où il manda les chefs de Tarsoûs et les fit saisir parcequ'ils s'étaient mis en correspondance avec Wasîf. Il ordonna aussi de mettre le feu aux navires de Tarsoûs, sur lesquels les habitants faisaient leurs expéditions contre l'ennemi, ainsi qu'à tout le matériel naval. De ce nombre étaient environ cinquante navires anciens pour lesquels il avait été dépensé des

⁵ Bardou, le père de Rostom, avait aussi une origine étrangère.

⁶ Lebeau *loc. laud.* xiii. p. 361.

⁷ Ebn el A'îr, vii. p. 335.

⁸ Ebn el A'îr, vii. p. 343-344.

sommes innombrables. L'incendie de ces navires eut lieu à l'instigation de Damyânah, esclave de Bâzmâr, qui avait conservé contre les habitants de Tarsoûs un profond ressentiment.

Lorsqu'en l'année 292,⁹ El Moktafy voulut s'emparer de l'Égypte sur les Touloûnîdes, il expédia Damyânah par mer avec ordre de pénétrer dans le Nil et de couper les approvisionnements de Mesr. Damyânah obtint un plein succès.

Nous avons déjà vu qu'il accompagna Rostom dans l'expédition d'été de l'année 299.

Damyânah mourut en l'année 301 (Comm. 6 août 913). Ebn el Atîr lui donne le titre d'*Emir des villes-frontières et de la mer*.¹⁰

Je terminerai par quelques indications géographiques tirées du *Marâsed*.

“*El Masîsah*, qu'on écrit aussi *El Massîsah*, est une ville sur le bord du Djayhân (Pyrame), faisant partie des *toġhoûr* (villes-frontières) de la Syrie, entre Antioche et le pays de Roûm. C'était un des points où les musulmans se réunissaient pour se livrer à la guerre sainte.”

“*Tarsoûs* est une ville dans les *toġhoûr* de la Syrie, entre Antioche, Halab et le pays de Roûm ; six parasanges la séparent d'Adanah ; elle est traversée par le fleuve *El Bardân* (Cydnus) et renferme le tombeau d'El Mâmoûn.”

“Le (mot) *taġhr* (pl. *toġhoûr*) s'applique à tout endroit à proximité du territoire ennemi. Il est appelé ainsi de la *taġhrah* (fissure) d'un mur, parce qu'il faut le défendre de peur que l'ennemi ne pénètre par là. Il y a beaucoup

⁹ Ebn el Atîr, vii. p. 370.

¹⁰ Lebeau, *loc. cit.* p. 407, place la mort de Damien, *émir de Tyr*, en l'année 915, au moment où il allait se rendre maître de Strobèle sur le bord du golfe Céramique.

de *toğhour*. Tels sont ceux situés en Syrie, entre le pays de Syrie et le Roûm. C'est là que stationnent des cheiks musulmans qui se consacrent à la guerre sainte pour les défendre, comme le pays du *Sâhel* (le littoral) dont les ports étaient défendus contre l'arrivée des vaisseaux des Grecs. Les plus célèbres de ces *toğhour* étaient Ascalon, Tarsoûs, Adanah, El Masîsah, du côté d'Halab et les '*Awâsem*.'

"Les '*Awâsem*, pluriel de '*Asem*, sont des châteaux forts et des territoires qui les entourent, entre Halab, et Antioche. La plupart d'entre eux sont dans les montagnes. Parfois on y comprend les *toğhour* d'El Massîsah et de Tarsoûs. Halab n'en fait pas partie. Abou Zayd leur donne Manbedj pour capitale."

Agréez, etc.

HY. SAUVAIRE.

ROBERNIER PAR MONTFORT (VAR).

XIX.

PAPER-MONEY OF THE NINTH CENTURY AND SUPPOSED LEATHER COINAGE OF CHINA.



CHINESE PAPER MONEY OF THE TANG DYNASTY.

The purpose of this communication is not to recapitulate all that has been written on the paper money in China, and its first issue in the Flowery Land since the beginning of the ninth century.

It is only to exhibit a specimen, unique I think, of the paper money issued under the Emperor Hien-Tsung of the T'ang dynasty, during the first years of his reign, *i.e.* after 806 A.D.

The object of this paper money, which was called Flying-money 飛錢, was not the creation of a fictitious currency without representative value. It was issued only to alleviate the burden of merchants, military and civil officers, rich families, etc., and save them, in their

journeys through all parts of the country, the trouble of carrying quantities of weighty copper money. This paper was given them by the Government in exchange for their deposits of copper coins, and they could recover the metal currency at the Government offices upon the presentation of this kind of bank-note,¹ of which, so far as I am aware, no description of size, shape, design and legend exists in Chinese annals. We know that they were made of paper, but we are not told what number of cash 錢 was represented by one of them. It is a mere supposition of ours that one of these flying coins was worth one 貫 *kwan* or string of 1000 cash, or perhaps several.

They were found so convenient that the result was soon to withdraw a great quantity of copper coins from daily circulation, and use for petty expenses, and they were consequently forbidden in the capital. Schemes were devised to supply more money, and it was proposed in the year 809, in order to give an impetus to trade, to allow the merchants to have their salt and iron appraised at the Ministry of Finance 戶部, and receive in return *flying money* which they could exchange for cash, less a discount of 10 per cent. But no merchant having availed himself of this costly facility, an order was issued that the notes should be exchangeable for their full value.²

No further mention is made at that time of the paper money and it disappears altogether, to return in a more fully developed form 150 years later³ under the Sung dynasty.

¹ Vid. 唐書, 食貨志, or Chin Yuen-lung 格致鏡原, k. xxxv. f. 21; or 淵鑑類函, k. cccxii. f. 24.

² Vid. 文獻通考 of Ma Tuan-lin, sect. 錢幣考.

³ Vid. Vissering, *On Chinese Currency, Coin, and Paper Money* (Leiden, 1877, 8vo.), p. 121.

It is the institution of that flying coinage which has given rise to the erroneous saying, so often repeated, even by high Chinese officials in Europe, that the bill of exchange was invented in their country in A.D. 806.

The specimen, here exhibited, is from the rich collection of coins of the Japanese Tamba family of Damios,⁴ which has been secured for this country by my friend Howel Wills, Esq. The reason why some confidence can be placed in the genuineness of this specimen, so labelled, is that the Tamba collection was formed by this family during several generations, all the specimens having been selected with the utmost possible care, no efforts having been spared in order to get the finest and undoubtedly genuine coins.

The figure of this specimen in a printed catalogue of coinages has induced some counterfeiters to imitate it for amateur collectors and ignorant Europeans; but besides the unmistakable modern aspect of the fabric, the forgers have made the mistake of supposing that the figure was that of a metal coin, and they have accordingly cast it in copper!

The legend of this specimen of paper money of the T'ang dynasty, about 807 A.D., is as follows: 唐館通寶 *T'ang kwan tung pao* "current value of the T'ang's counting-houses."

A tradition which has found its way down to modern times, in some native books on numismatics, would seem to attribute the invention of paper money to a minister of Huang-ti (Nakhonte), the first Emperor 2697 B.C., if we are to understand it in the sense in which it has sometimes been taken.^{4*} But the vagueness of the Chinese

⁴ The catalogue of one part of this collection was published in 1782 under the title of 新撰錢譜, 3 k. by *Minamoto-no Masa tsuna*, prince of Ketsuke and of Oki, son of *Nobu tsuna*, heir apparent of the province of Tamba, with the title of prince of Kotsuke and Iyo.

^{4*} As in Vissering, *On Chinese Currency*, p. 161.

signs does not necessitate such a construction of their sense. When dealing with these early traditions, and the references made to them by subsequent writers, we should be careful not to attach more weight to them than the probabilities derived from other facts and sources justify us in doing. As a rule the Chinese authors, treating of a special object, whatever it be, always quote what was done formerly in the same line, and as far as possible, try to find anything connected with it, in the doings of their first Emperors and their galaxy of ministers and subjects. But these allusions should not be pressed unfairly, and should be accepted as the Chinese authors themselves give them. Many fancies about Chinese matters in European literature have crept in in this way, and they deserve neither more nor less credit than many similar European traditions, which common sense forbids us to accept. They lack criticism, it is true, but many generations have not elapsed since the time when Western writers were not conspicuous by their display of this quality. Chinese authors generally have no great power of imagination, they are satisfied with repeating what has been said previously to their time, but they have an immense power of 'combining the information.' Thus we must be on our guard against neglecting these considerations when dealing with any Chinese quotation of facts connected with the early traditions, customs and objects from their first emperors.

The statement referred to is that Pöh Ling 伯陵 a minister of Hien-yüen (*i.e.* Hwang-ti) began to make use of fabrics 布帛 *pu pöh* as substituted-money 楮幣 *ch'u pi*.

The last expression is a compound used in a merely conventional way; for if we had to press the meaning of every character, we should obtain a nonsensical record,

and find that the above-named minister 'began to make mulberry-tree-bark-made-bills with hempen and silk cloth.'⁵ But we have to consider that 布帛 *pu pöh* is a compound expression of two concrete words to indicate a synthetic meaning, a process of frequent use in the making up of the vocabulary; 布 *pu* signifies 'cotton, linen or hempen fabrics,' and 帛 *pöh* 'silk-cloth;' the two words are in opposition one to the other as far as concerns the material, and are used together to indicate 'fabrics' generally.

Of the other expression 楮幣 *ch'u pi*, the first word means 'the *Broussonetia papyrifera*, a species of mulberry from whose bark the Coreans and Japanese make paper, and also a coarse kind of cloth made by them, but the paper itself is much used for garments.'⁶ The second word 幣 *pi* means properly 'a piece of silk,' and its secondary meaning already known in the classics is 'wealth, riches.' The two words were extensively used as a compound, under the Yuen dynasty, with the meaning of 'bank-note,' and it is obviously in this sense that we have to take them in the present instance, as the phrase has been framed by a modern writer, perhaps of the Yuen period. In the *K'ang-hi-tze-tien*,⁷ the compound expression is explained by 鈔 *ch'ao*, a similar word of which the proper meaning is 'copied money.'

The explanation of the statement which has led us astray is to be found in this known fact, that in the early periods of the Chinese institutions, a long while before the organization of any local or general coinage, anything of material value was used as barter; precious stones, cowries,

⁵ M. Vissering (*o.c.* p. 161) has translated: . . . 'began to make paper-money of silk shreds.' He has misunderstood 幣 and translated it as 徹.

⁶ Vid. Wells Williams, *Syllab. Dict.* p. 93.

⁷ *s.v.* 楮 *pu* 75 f. 74.

skins, pieces of cloth and specially silk cloth; and any piece of copper, made as tools or implements, specially of small sizes, knives, points of weeders, etc., were easily exchangeable.

We have mentioned the skins of animals amongst the objects used in barter, a famous instance of which may be related here. It happened during the seventh century B.C., and is one of the chief events of the life of Pöh-li Hi, celebrated as a wise counsellor of Muh, Duke of Ts'in 秦 one of the principal states of the Chinese Confederation. Originally a minister of the petty prince of Yü, he followed its captive duke after the submission of this small principality to the state of Tsin 晉; refusing to take service in that state, he was sent to Ts'in in a menial capacity, in the train of the eldest daughter of the house of Tsin who was to become the wife of the Duke Muh. Disgusted at being in such a position when upwards of seventy years old, circa B.C. 655, he absconded and fell into the hands of the men of Ts'u 楚 where he became noted for his skill in rearing cattle. The Duke Muh having heard of his great capacity, sent to Ts'u to reclaim him as a runaway servant, offering also to pay for his ransom five rams' skins 五羖羊皮.⁸ He was afraid to offer a more valuable ransom, lest he should awaken suspicions in Ts'u that he wanted to get Hi on account of his ability, and on obtaining him he at once made him his chief minister. These facts have been tacitly alluded to, by later writers, as a leather currency of old time, and the making of leather badges sold by the

⁸ The history of Pöh-li Hi is to be found in several old Chinese books with divergencies of detail, but the main fact of a ransom of "Five rams' skins" remains. Vid. 列國志, k. xxv. sq.; 史記, 秦本紀, k. v. f. 9; Mencius, Pt. v. part i. ch. ix., *Chinese Classics*, edit. Legge, vol. ii. pp. 242, 244, and 243 n.; F. W. Mayer's *Chinese R. M.* p. 170.

government for appearance at the court, though far from being a currency of any formal shape, has also been quoted as another example of a leather coinage.

ERRONEOUS STATEMENT CONCERNING A LEATHER COINAGE.

I take this opportunity of adding a few words on the supposed leather coinage of China. The fact has been recently adduced in an important book,⁹ which refers to a passage from a paper on Tibet by my friend Dr. Bushell, but all this is a misunderstanding which requires to be corrected at once.

The misleading quotation given by the author states that in a memorial presented to the Chinese Empress Ts'êtien in A.D. 692, it is related that money was made of leather.

The memorial in question, fully translated by Dr. Bushell,¹⁰ does not mention a *contemporary* fact; it alludes only to an event which happened eight centuries before under the Former Han dynasty; the text from which the passage quoted by the learned author has been extracted shows this plainly further on, by mentioning the Emperor Kwang-Wu as posterior to the described state of things. *Kwang-Wu* 光武 was the founder of the Eastern Han dynasty, who ascended the throne in A.D. 25.

The event referred to happened in the fourth year of the period *Yuen-shen*, i.e. 119 B.C., under the reign of the Emperor Wu-Ti of the Former Han dynasty, when it is recorded that a currency of white metal and deer-skin was made. But this last-named currency had a rather narrow range. It consisted only of pieces of the skins of white

⁹ F. W. Madden, *The Coins of the Jews* (London, 1882, 4to), p. 23.

¹⁰ S. W. Bushell, *The Early History of Tibet, From Chinese Sources*, J.R.A.S. N.S. 1880, vol. xii. p. 452.

stags, measuring a square foot, and embroidered on the hems, for which the kings, feudal princes, and noblemen of imperial clans had to pay 400,000 copper coins a piece, as they were compelled to wear them as badges of honour, without which entrance to court and audience by the Emperor could not be obtained.

It is unnecessary to go into further detail as to this kind of currency, which is pretty well known. My purpose was only to correct the erroneous idea that any leather coinage had ever been issued in China under the T'ang dynasty, and of which the date of 692 A.D., given in the passage quoted above, would seem to vouch the accuracy.

TERRIEN DE LACOUPERIE.

LONDON, *Nov. 26th*, 1882.

XX.

NOTES ON JAPANESE IRON COINS.

This subject has already once been brought before this Society by James White, Esq., who last year read some general notes thereupon. I may therefore be permitted to give some further details with regard to this iron currency.

From A.D. 708 the Japanese began to use copper coins, of the same shape as had then been common in China for many centuries, viz. round with a square hole in the centre. These Japanese coins were cast, not struck. On the obverse they bore four characters, which in the earlier issues formed such high-sounding terms as "The currency of ten thousand years;" "The everlasting treasure of glorious peace;" "Heavenly treasure of abundant profit," etc. On later coins, however, two of the characters generally were those forming the name of the *Nen-go* (Chinese *nien-hao*, 'period of years') during which the coin was issued, the two remaining characters merely signifying 'currency.'¹ The reverse was for some

¹ The Japanese, like the Chinese, count their years by epochs or periods of uncertain length, not by any continuous era, and designate any year by stating its number in the period within which it falls.

centuries blank, but on later issues we sometimes find characters indicating the place of coinage.

Besides these copper coins, gold and silver were also current, at first in the form of dust or in bars, but later on as coins of different shapes.

In the period called *Kwan-ei* (1624–1643) the copper coins bore on the obverse the characters *Kwan-ei-tsū-hō* ‘the currency of *Kwan-ei*,’ and this inscription was retained on all coins issued during the subsequent two centuries, without regard to the actual name of the periods in which the new issues took place.²

In the 1st year of the period *Gem-bun* (A.D. 1736) iron was for the first time used for coinage. Owing to the increased cost of labour, as well as the enhanced value of copper, the Government found they were losing on the currency, each piece costing more to produce than the sum it represented. The Government had formerly, on similar occasions, reduced the size of the coins, and at the same time bestowed less care upon the workmanship, but experience had shown that such a course among other evils tended to encourage forgeries. This time it was therefore decided to effect the desired saving by using iron instead of copper.

Among the many different issues of *Kwan-ei-tsū-hō* which were current in the said period *Gembun*, there was one issue that bore on the reverse the sign 小, *Ko*, being the initial character in *Ko-ume-mura*, the name of the place where the coin was cast; while another had the character 十 *Jū* in the round border of the obverse, indicating that it was coined at a place called *Jū-man-tsubo*. Of these two coins a number were now cast of

² Mr. White translates the inscription of this coin as “The current money of Young the Prosperous,” but this is not correct.

iron, and circulated indiscriminately with the copper coins, both being of the same nominal value, viz. 1 *Mon*. (*Mon* originally meant "piece of money," but had in course of time come to be the name of the unit of the currency).

From the said year 1736 the number of iron coins issued gradually became larger, and the copper coins proportionally fewer. Considering the smaller intrinsic value of the iron coins, and their aptness to corrode, it was but natural that within a short time these coins became less liked by the people, who consequently began to draw a distinction, thereby establishing a rate of exchange between the two kinds of currency. The outcome of this was that the Government in the year 1768 issued a somewhat larger copper coin of the nominal value of 4 *Mon*, though in reality not even double the size or weight of the 1 *Mon* copper and iron coins. On this 4 *Mon* copper coin the inscription on the obverse was the same as on the 1 *Mon* coins, viz. *Kwan-ei-tsū-hō*, but on the reverse it was ornamented with wave-like lines, 21 or 11 in number, whence the Japanese generally called it *Nami-sen*, 'Wave-coin.' For some years this *Nami-sen* continued to be cast of copper, and was considered the equivalent of four of the ordinary smaller cash, of which by this time by far the greater portion were of iron, the copper ones having been withdrawn by the government to be re-cast into *Nami-sen*.

Copper, however, continued to grow dearer, and the Government soon found it necessary to repeat its former operation, and to cast the 4 *Mon* coins of iron also. I am unable to say exactly when this commenced; but a large issue of 4 *Mon* iron coins took place in 1821, and as was the case when the small iron coins were issued, the new

Nami-sen of iron were used indiscriminately with the copper ones.

Some years later, in 1835, a large oval bronze coin was issued, bearing the inscription *Tem-pō-tsū-hō*, 'The currency of the period *Tem-pō*,' and on the reverse an indication of its value, viz. 100 *Mon*. Its weight was, nevertheless, only equal to about five 4 *Mon* pieces.

Finally, in the third year of *Bun-kiū* (1863), a new 4 *Mon* copper coin was issued, inscribed on the obverse with four characters *Bun-kiū-ei-hō*, 'The everlasting treasure of *Bun-kiū*,' the reverse was covered with "waves." This 4 *Mon* piece was considerably smaller than the old copper and iron 4 *Mon* coins, which still remained current in the country.

At this time (1863) we thus had the following coins in circulation :

- 1 *Mon* *Kwan-ei-tsū-hō*, copper or iron.
- 4 *Mon* " " "
- 4 *Mon* *Bun-kiū-ei-hō*, copper.
- 100 *Mon* *Tem-pō-tsū-hō*, bronze.

A promiscuous use of copper and iron, as above described, coupled with the disproportion in the size of the various coins, caused such a confusion that the Government, first in 1865, and thereafter in 1868, found it necessary to adjust the relative value of the coins as follows :

	Original Value.	Value assigned	
		in 1865.	in 1868.
Small <i>Kwan-ei</i> iron coin	1 <i>Mon</i>	1 <i>Mon</i>	1 <i>Mon</i>
Large " "	4 "	4 "	4 "
Small " copper coin	1 "	4 "	12 "
<i>Bun-kiū</i> copper coin	4 "	8 "	16 "
Large <i>Kwan-ei</i> copper coin	4 "	12 "	24 "
<i>Tem-pō</i> copper coin	100 "	100 "	100 "

In 1871 the Japanese introduced an entirely different currency with new denominations, and consisting of gold, silver and copper coins, made after European pattern,

and as carefully proportioned to each other as any modern money. This currency is on a decimal basis, viz.

1 Yen = 100 Sen.

1 Sen = 10 Rin.

1 Rin = 10 Mō.

The copper pieces of this series are of the value of 2 *Sen*, 1 *Sen*, $\frac{1}{2}$ *Sen* and 1 *Rin*. The old copper coins are to remain in circulation until a sufficient supply of new coins can be issued, their present value being fixed as follows:

Tem-pō-tsū-hō, oval copper coins	8 Rin
Kwan-ei-tsū-hō, large copper coin (with waves)	2 Rin
Bun-kiū-ei-hō, copper coin (with waves)	1 Rin 5 Mō
Kwan-ei-tsū-hō, small copper coin	1 Rin

The value of the old iron coins has also been fixed by the Government as follows: 60 large *Kwan-ei* iron coins (with waves) or 120 small *Kwan-ei* iron coins = 1 *Sen*; but they are never used now, owing to the rusty and decomposed state, to which most of them have been reduced, and also because coins of a nominal value so small, that it takes 3000 pieces to make up an amount equal to one shilling, are not required for commercial purposes.

The following is a complete list of all iron coins issued by the Government:

A. *Kwan-ei-tsū-hō*, value 1 Mon.

1. *Without any additional character.* Of these there are numerous issues differing in size and style of writing.

2. *With additional character in border of obverse.*

(a) † *Ju*, in border. Coined at *Jū-man-tsubo*, in 1736. Of this coin there are also specimens in copper. The iron ones bear the said character in only one place, while the copper ones may have it in one, two or three places.

(b) 川 *Kawa*, in one or two places of border. Coins of iron only at Konagi-kawa, in 1737.

(c) 一 *Ichi*, in two places of border. Coined of iron as well as of copper between 1736 and 1741. Place uncertain.

3. *With additional character on the reverse.*

(a) 小 *Ko*, coined at *Ko-ume-mura*, in 1736, in iron and copper.

(b) 佐 *Sa*, coined in *Sado*, in 1736. Only iron. There are copper coins with the same character on the reverse, but it is differently written and the coins belong to a different issue.

(c) 千 *Sen*, coined in *Sendai* in 1769. Iron only.

(d) 久 *Ku*, coined in *Kuji-gōri*, in 1769. Iron only.

(e) 久 *Ku* above and 二 *Ni* below the square hole. Same place and time. Iron only.

No record remains of the quantities of coins issued by the Government in remote days, but the following figures giving the totals coined at the more recent issues, may be of interest :

Kwan-ei	1 Mon, iron,	from A.D. 1739 to 1867	6,333 million pieces.
„	4 Mon, copper,	„ 1768 to 1860	157 „ „
„	4 Mon, iron,	„ 1860 to 1868 ³	102 „ „
Bunkiū	4 Mon, copper,	„ 1862 to 1867	892 „ „
Tem-pō	100 Mon, copper,	„ 1835 to 1870	485 „ „

Of the *Kwan-ei* 1 Mon copper coins, which were issued from 1636 until 1768, the exact quantity is not known, but it must have been immense. In 1859 the Government had in their warehouse not less than 2114 million pieces of these coins, which they had bought up with 100 *Mon* and iron coins, with the intention of recasting them into *Bun-kiū* 4 *Mon* pieces, and yet an enormous quantity still remained in circulation.

³ Quantity of 4 *Mon* iron coins issued prior to 1860 is unknown.

Besides the iron coins cast by the Central Government, and current throughout the country, others were at various times issued by the feudal lords (*Daimiō*), for the exclusive use of their own dominions, or by certain chief towns.

The following is a complete list of such local iron coins :

1. Dominion of *Sendai*. Square, with rounded corners. Value 1 *Mon*. Inscription on obverse : *Sen-dai-tsū-hō*, 'Currency of *Sendai*.' There were several issues, of which the first took place about 1782.

2. Same place. Round coin. Value 4 *Mon*. Inscription on obverse *Kwan-ei-tsū-hō*, and on reverse 11 wave-like lines, and thus like the Government 4 *Mon*, the only difference being that it bears the character 千 *Sen*, above the square hole, on the reverse. Issued about 1844 (?).

3. Dominion of *Mito*. Like the foregoing, but with the letter 卜 *to* on the reverse. Coined about 1866.

4. Dominion of *Aidzu*. With letter 尸 *a* on reverse. Otherwise like the foregoing. Same time.

5. Dominion of *Morioka*. With letter 盛 *Mori* on reverse. Otherwise like the above. Same time.

6. Province of *Ise*. With letter 𠂇 *i* on the reverse. Otherwise like the above. About same time.

7. Place and time the same as the foregoing. On the reverse the sign J, which in this case is probably an abbreviation of 𠂇.

8. Town of *Hakodate*. From this town, which did not belong to any dominion, but was directly under the Crown, there is an iron coin, with a round hole in the centre. It has on the obverse the inscription *Hako-date-tsū-yō*, 'Hakodate currency,' and on the reverse the character 女 *An*, which has reference to the epoch *An-sei*, in the 4th year of which (1857) it was coined. Value 1 *Mon*.

9. At a place called *Kashima-mura* large numbers of

different kinds of iron coins were cast in the year 1738, which circulated as 1 *Mon*. Some were of the pattern of the earliest issues of *Kwan-ei-tsū-hō*, dating from the time when iron was not yet used for coinage. Moulds were simply formed from these old copper coins, and iron coins cast therein. Among the iron coins emanating from this place are also several bearing the same inscription as coins formerly current in China. I have thus found iron coins with the following inscriptions :

開元通寶
 章重元寶
 天聖元寶
 元豐通寶
 元祐通寶
 大觀通寶
 大定通寶
 洪武通寶
 水樂通寶

with 元 on the reverse.

At *Kashima-mura* was further cast an iron coin, which from its inscription seems to have been coined by or for some private individual in the town of *Osaka*, for on one side it has the words '*Takara-machi Osaka*,' "Takara-Street, Osaka," and on the other the family name *Ko-matsu*.

Before closing the list of Japanese iron coins I must still mention four, that differ in design from the others, and have more similarity to the amulets or so-called "Temple-coins" so frequently found in Japan and China. I have, however, good reason to believe that they were actually used as currency, although I am not yet in possession of full information regarding them. They are :

1. Large and thick coin, without any hole. On the obverse a cow. Reverse blank. Said to have been cast in the province of *Yamato*, about 1738. Value unascertained.

2. Large, with square hole. On one side the characters *Fu-koku-kiō-hei*, meaning "A wealthy country and a strong army;" on the other a tiger. Besides those in iron, there are issues in copper and tin. Values unascertained. They were coined in *Mito*, in the second year of the period *Kei-ō* (1866), which happened to be "the year of the tiger," and hence the design.⁴

3. Somewhat smaller coin. On one side the image of *Dai-koku*, the god of wealth. On the reverse four Chinese characters. This was also cast in *Mito*, a year or two after the preceding coin. There are issues in iron, copper, and tin. Values unascertained.

4. A small coin. On obverse four characters. Reverse blank. Place of issue and time the same as the foregoing. Only cast of iron. Value 1 *Mon*.

The inscriptions in Chinese characters on the two last-mentioned coins are both referring to the same quotation from a Chinese classic, which says:

May your wealth be as vast as the Eastern Ocean
And your age as old as the Southern mountains.

On the larger of the two coins in question, the image of the "god of wealth" presumably takes the place of the first line of the stanza, and the inscription merely comprises the second line. On the smaller coin the quotation has been contracted into "Wealthy as the ocean, old as the mountains."

⁴ Japanese years, besides being designated by their numerical order in the epochs of which they form part, are also grouped into cycles of twelve years, each of which are called after one of the twelve signs of the zodiac, viz. the rat, bull, tiger, hare, dragon, serpent, horse, goat, ape, cock, dog, and boar.

MISCELLANEA.

MY DEAR MR. HEAD,—As I have no doubt you purpose issuing a supplement to your very interesting article on Ephesus I send you to-day a small contribution to the list of unpublished coins of that town, made up from coins now in my possession.

UNPUBLISHED COINS OF EPHESUS.

OF PERIOD V. ?

- Æ. 2. E—Φ. Bee. Forepart of stag to r., head to l. *No symbol.*

OF PERIOD VIII. ?

- Æ. 3. E—Φ. Bee. Stag kneeling to l., head to r., astragalus ΧΕΛΛΩΝ.
Æ. 3½. E—Φ. Bee in wreath. Stag feeding to r., above, a quiver in ex. Τ]ΙΜΑΓΟΡΑ[Σ.

N.B.—It is important to note that this magistrate's name appears on a copper coin of Period VII., type of Arsinoe, and that another magistrate's name, ΑΠΟΛΛΩΝ, also appears in Period VIII. (type, stag kneeling), and Period VII. (?).

PERIOD IX.

- Æ. 4. Rhodian didr., with ΠΟΣΣΙΔΩΝΙΟΣ.
Æ. 3. Same type, ΕΓΚΑΙΡΙΟΣ.

N.B.—I call attention to the fact that this latter name is found on a silver coin of Period V., B.C. 387—295 (?).

PERIOD X.

- Æ. 4. E—Φ. Bee in circle of dots. Stag standing to r., before a palm-tree ΣΩΤΑΣ. About 60 grs.

N.B.—You describe this coin from "Cat. de Palm.," where it appears as size 3.

PERIOD VII.

- Æ. 4. Head of Arsinoe to r., veiled. ΑΡ—ΣΙ. Stag kneeling l., head to r., above astragalus. No magistrate's name. A. J. LAWSON.

SMYRNA, October, 1882.

APOLLO SMINTHEUS AT PERGAMON.—Mr. Warwick Wroth (p. 39) considers the rat or mouse found on the coins of Pergamon as pointing to some actual association of the cults of Asklepios and Apollo Smintheus, amounting perhaps almost to an assimilation of the two cults.

Its occurrence is undoubtedly due to the invasion of rats or mice, incidentally referred to by him, and by which the district is occasionally afflicted. It is considered that a favourable season for mast in the forests on the mountain sides encourages the naturally rapid propagation of the creatures, and that when a deficiency of food arises they descend in myriads to the plains, committing great ravages. The birds of prey are then insufficient to cope with them, and they only disappear from some change of the weather, the interposition of the Sminthean Apollo of old. During one of these Pergamon visitations I was in Asia Minor, when the mice dug up even the seed corn. The best account of the ravages of mice in this and various other countries is in a paper by Sir Walter Elliot, K.C.S.I., of Wolfslee, Hawick.

HYDE CLARKE.

CROWNS OF CHARLES I.—It is not often that one is able to exhibit an unpublished coin of the size and importance of a crown of Charles I.

I have this evening brought for the inspection of our members a Tower crown, m. m. harp, which differs from the ordinary type (Hks. 474) in having a plume over the shield on the reverse. There is no example of this piece in the National Collection. The arrangement of the pellets on the obverse is identical in both coins, but on the reverse of this coin there is but one pellet to the left of the mint-mark, and between each word of the legend, instead of four pellets as in the ordinary type.

I leave to the consideration of those who have more time and facilities for the purpose than I have, how far the question of pellets is material to the proper study of the coins of Charles I. It is at present only in the case of pennies that they have been considered as specific mint-marks. I have no doubt but that a careful examination of the subject would prove that with regard to other coins both in gold and silver, there is more meaning in the number and arrangement of pellets than has at present been shown.

On the obverse of both the harp crowns of Charles I. the four pellets to the left of the mint-mark are not circular in form as in the case of other crowns, but each terminates in a curved tail and resembles a comma. While on this subject I must refer to and exhibit two distinct types of the crown, m. m.

plume, the differences between which have never before been recorded. In the one, the inner circle is composed of circular dots, as is most usual in crowns of this reign, and there are seven pellets to the left of the mint-mark; in the other, there are but five pellets in that position, and the inner circle consists of beaded dots of an elongated form.

I must, however, add that although I think some weight may be attached to these pellets when treating of the coins *inter se*, I do not for one moment suggest that they are of any general importance as affecting coins of different denominations. The contrary is clearly shown on an examination of the various gold and silver pieces of the period.

I conclude by exhibiting another crown of this reign, bearing the mint-mark Δ , impressed over that of the anchor, thus proving (if proof were necessary) the consecutive relation, in point of time, between these two mint-marks.

H. MONTAGU.

November 16, 1882.

CORK SIEGE-PIECES.—I have made an interesting discovery in connection with a so-called Cork siege-piece, or money of necessity, which is figured in Lindsay's "Coinage of England," plate 7, No. 151. This he assigns to 1641 or thereabouts, and places among the coins of Charles I.'s reign.



On plate 9, No. 7 is a trade token of William Ballard, anno 1677. Now I have both No. 151 and No. 7, and also No. 7 countermarked with the stamp of No. 151, proving that Ballard's tokens, which were only payable at his shop or place of business, were, to meet the exigencies of the times, stamped

with the city stamp of the authorities here, and so made to pass current and become a legal tender. And instead of dating from 1641 we must now assign the so-called siege-piece to *ante* 1677.

I send representative tokens from the group, which will determine my contention. They are shown in the accompanying cuts, kindly lent from the *Journal of the Royal Historical and Archaeological Association of Ireland*, vol. v., 4th series, p. 632, where I have published full particulars.

ROBERT DAY.

CORK, December 10, 1881.

DEAR SIR,—I have read in the "Num. Chron." part ii. for this year a note from Mr. E. Mackenzie Thompson, describing four varieties of the shilling of George III. for 1787, all of which I have with one exception.

I thought it probable that similar varieties might be found among the sixpences of that coinage, and on looking over them I obtained—

Lüneburg shield, semée with hearts, harp six-stringed.
 " " harp seven-stringed.
 " " not semée, harp six-stringed.

There is therefore only one variety wanting as yet to complete the series. I have written to him on this matter, but you can, if you like, lay this note before the next meeting of the Numismatic Society.

The sixpences of George II. require revision. I find 1757, plain, has two varieties of harps, viz., six and seven strings. And the sixpences of 1758 also two varieties of harps, five and six-stringed.

W. FRAZER.

DUBLIN, October 23, 1882.

TREASURE-TROVE.—A treasure-trove consisting of 16 gold and 264 silver coins, from Letchmore Heath, Aldenham, Herts, has lately been examined by me. It contained pieces belonging to all the reigns of English sovereigns from Edward VI. to Charles II., and included about 130 silver coins of Charles I., but no rarities of any kind. The only noticeable thing about the treasure is that it comprised no pieces of the Commonwealth.

C. F. KEARY.

FIND OF COINS IN SCOTLAND.—Towards the end of March last a discovery of gold and silver coins was made by a shepherd named Peter Murdoch, at Overblack Craigs, New Cumnock, in Ayrshire.

The coins were at once transmitted to Exchequer, and were sent to me (as Curator of Coins of the Society of Antiquaries) for examination and valuation. I subjoin a list of the coins, there being 41 gold and 142 silver. The English coins are named according to Mr. Neck's arrangement. (See "Num. Chron.," 2nd series, vol. xi. p. 93.)

GOLD, ALL SCOTTISH.

St. Andrews of James I., II., or III., 9 varieties	18
Lions of James I. and II., 6 varieties	21
Half Lions ditto varied	2
	<u>41</u>

SILVER.

Scottish. Robert III. Edinburgh groats	4
English. Edward III. London groats	10
Ditto. Half groats	10
Henry V. London groats	11
Ditto. Calais groats	22
Henry V. or VI. Calais groats	16
Henry VI. London groats	6
Ditto. Calais groats	28
Ditto. Calais half groats	10
Henry, forgery London groat	1
Henry V. London half groats	5
Ditto. Calais half groats	18
Edward IV. London heavy groat	1
	<u>142</u>

EDINBURGH, 1st May, 1882.

GEORGE SIM.

MEDAL STRUCK ON THE REFORMATION OF THE KALENDAR, 1582.—Some weeks ago, there appeared in the *Times* newspaper a learned article on the rectification of the Julian year, made under authority in the Roman States, exactly three hundred years ago, during the pontificate of Gregory XIII. (Boncompagni). In honour of the occasion, a medal was struck, to which it seems appropriate to draw attention now. Its obverse presents the bust of the Pontiff, the head bare; beneath, under the shoulder, are the letters L. PARM.; above, is the legend, GREGORIVS. XIII. PONT. OPT. MAXIMVS. On the reverse are the words, ANNO. RESTITVTO, with the date, MDLXXXII.; and the figure of a dragon, its tail in its mouth, and with the body coiled round so as to describe a circle. Within the circle is the head of a ram, *on and about which are*

four stars, while from the horns hangs a victor's chaplet. The stars show us that it is the Celestial Ram, the Sign of the Zodiac, Aries; in which Sign the sun is, at the season which then was the beginning of the year. The circle has its proper meaning, as when made an emblem by the ancients with the coiled body of a serpent; the difference between the usual mode of displaying it, and that which is to be observed on this medal is explained, when we know the dragon was the heraldic bearing of the Boncompagni family. Writers on Papal medals hitherto have omitted to notice how the head of the Ram is studded with stars, yet as a feature in the emblem they are highly significant. The letters L. PARM, on the obverse, form the signature of the Medallist, "Laurentius Parmensis."

By the alteration of the Kalendar, commemorated thus, the day October 5th, 1582, became October 15th, in Rome; and not in Rome only, for in Spain, Poland, and other countries, the "New Style" was adopted. Russia alone stands out against it now, but our own country was slow in following the lead, so that here the alteration did not come until the reign of George II. It was brought about by the author of the "Chesterfield Letters," who was then a minister of the Crown. Supported by the learning of the President of the Royal Society (George, second Earl of Macclesfield), Lord Chesterfield carried a Bill through Parliament in spite of the timidity of his colleague, the Duke of Newcastle, and in the teeth of popular prejudice. The Bill provided that the legal year, in future, should commence on January 1st, and that to correct the Kalendar, eleven nominal days should be suppressed in September, 1752, so that the day following the second of that month should be styled the 14th. Popular prejudice asserted itself, however; for when Lord Macclesfield's eldest son stood a contested election for the county of Oxford, in 1754, the cry got up against him at the hustings was, "Give us back our eleven days which you've stolen."

Members of the Society who possess any collection of Papal medals of the fifteenth and sixteenth centuries, would confer a great favour by opening communications with me, as I desire to bring under the Society's notice whatever matter I can collect in regard to a series, which hitherto seems to have been neglected by us.

ASSHETON POWNALL.

SOUTH KILWORTH RECTORY, RUGBY.

ERRATA IN VOL. II., SERIES 3.

- P. 229, line 1: the *rev.* of No. 2 is placed under the *obv.* of No. 3.
 P. 284, line 15: for Pl. VI. 13 read Pl. VI. 11.

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