

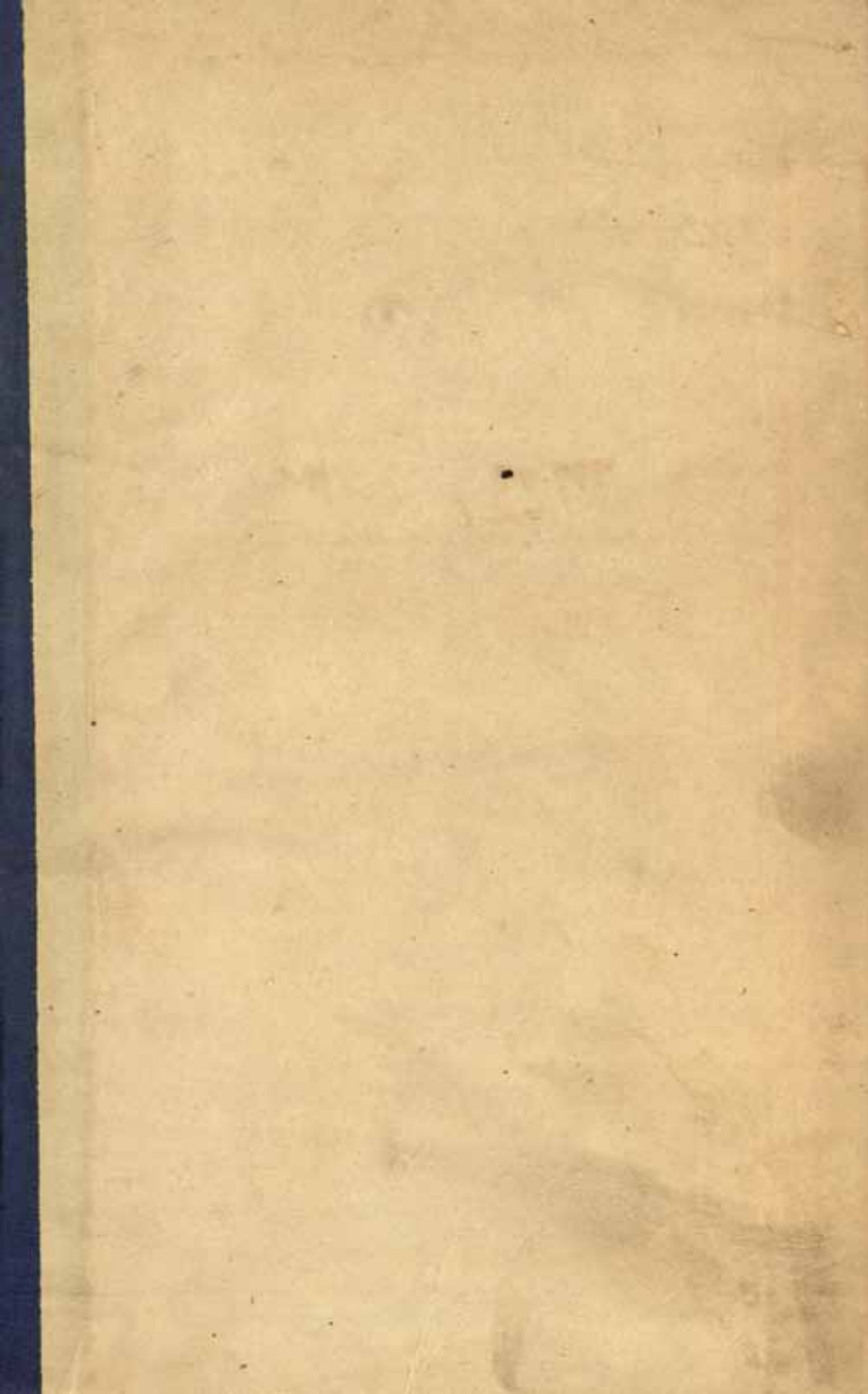
GOVERNMENT OF INDIA
DEPARTMENT OF ARCHAEOLOGY
CENTRAL ARCHAEOLOGICAL
LIBRARY

CLASS _____

CALL NO. 737.05 N.C.

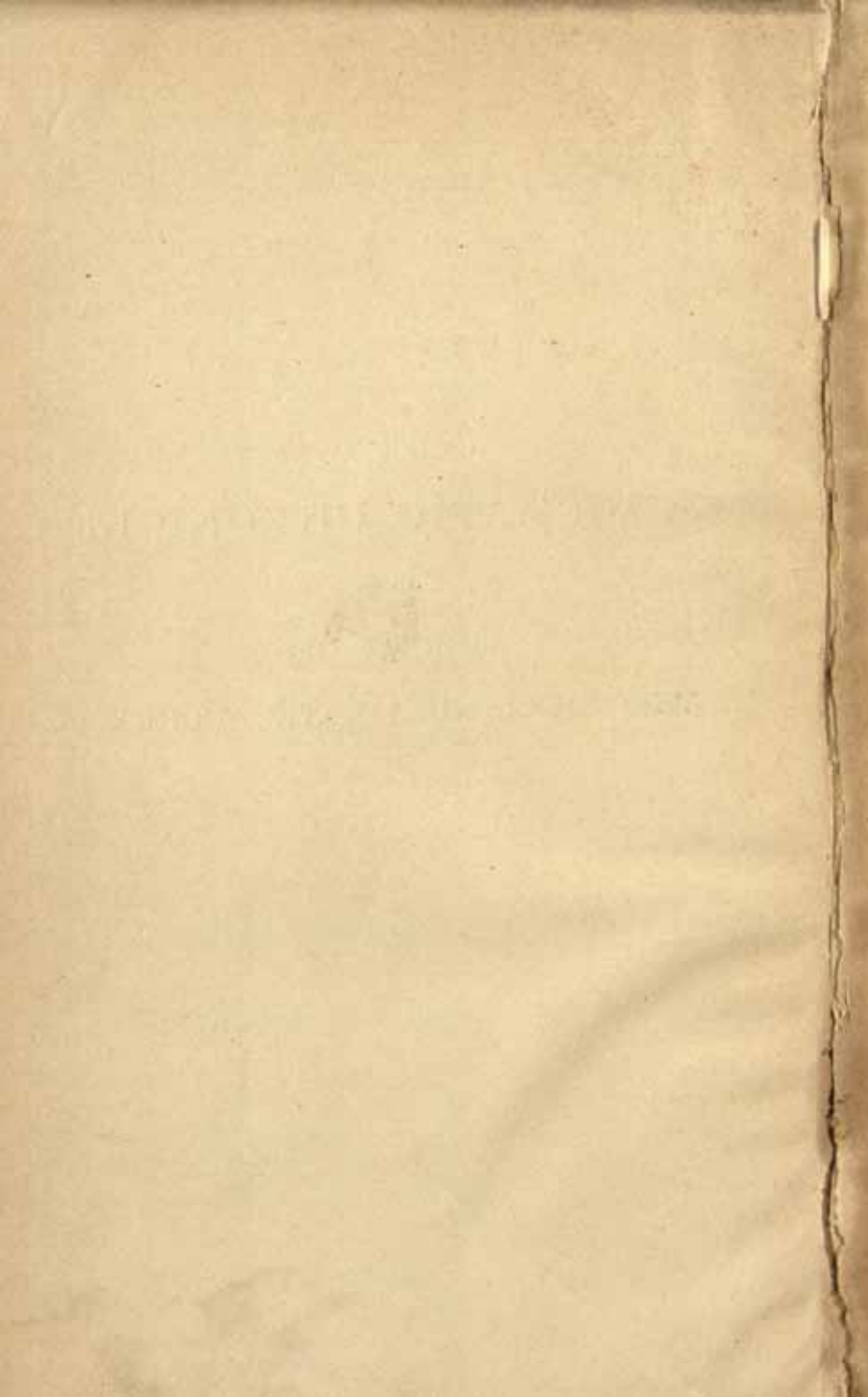
Vol 6

D.G.A. 79.





THE
NUMISMATIC CHRONICLE
AND
JOURNAL OF
THE ROYAL NUMISMATIC SOCIETY



THE
NUMISMATIC CHRONICLE
AND
JOURNAL
OF THE
ROYAL NUMISMATIC SOCIETY

EDITED BY

GEORGE F. HILL, LL.D., F.B.A., F.S.A.

KEEPER OF COINS, BRITISH MUSEUM

J. ALLAN, M.A., F.S.A., M.R.A.S.

DEPUTY-KEEPER OF COINS, BRITISH MUSEUM

AND

G. C. BROOKE, M.A., F.S.A.

1234

FIFTH SERIES—VOL. VI



737.05
N.C.

Factum ablit—monumenta manent.—Ov. Faust.

LONDON:

BERNARD QUARITCH, 11 GRAFTON ST., W. 1

PARIS:

MM. ROLLIN ET FEUARDENT, PLACE LOUVOIS, No. 4

1926

1234

*Printed in England at the
UNIVERSITY PRESS, OXFORD
By John Johnson
Printer to the University*

**CENTRAL ARCHITECTURAL
LIBRARY NEW DELHI**

Acc. No. 1234

Date..... 15.3.54

Call No. 737.05 / ~~R.A.S.~~

N.C.

CONTENTS.

ANCIENT NUMISMATICS.

	PAGE
EVANS (SIR ARTHUR).—Select Sicilian and Magna-Graecian Coins (Plates I-III)	1
HALL (H. P.).—A Note on the Fabric of Ptolemaic Bronze	301
HILL (GEORGE F.).—Greek Coins Acquired by the British Museum in 1925 (Plates V-VI)	117
HUNKIN (J. W.).—Note on a Monogram on Certain Coins of Herod the Great	299
HAINES (G. C.).—Some Rare or Unpublished Roman and Byzantine Coins (Plate XXII)	336
MATINGLY (HAROLD).—The Restored Coins of Trajan (Plates XII-XIII)	232
MESSINGER (LEOPOLD G. P.).—A Note on Some Unpublished Roman Bronze Coins (Plate XXII)	322
MILNE (J. GRAFTON).—The Currency of Egypt in the Fifth Century	43
OMAN (SIR CHARLES).—Some Problems of the Later Coinage of Corinth (Plate IV)	20
———— Sulla or Endymion?	36
RAVEL (O.).—Notes on Some Rare and Unpublished "Pegasi" of My Collection (Plates XX-XXI)	305
ROGERS (REV. EDGAR). Two Unpublished Jewish Coins	470
SELTMAN (C. T.).—Aegean Mints (Plates VII, VIII)	137
SYDENHAM (REV. E. A.).—An Unpublished Double-Siliqua of Constantine Junior	472
VLASTO (M. P.). Alexander, Son of Neaptolemos, of Epirus (Plates IX-XI)	154

O. Swarbrick London Lib 37/17/3 for 1905-40. Dt 15.3.84.

MEDIÆVAL AND MODERN NUMISMATICS.

	PAGE
BARNARD (F. PIERREPONT).—Forgery of English Copper Money in the Eighteenth Century	341
FONAHN (A.).—Notes on a Hoard of Mediæval Coins found at Stein, Ringerike, Norway	279
HILL (GEORGE F.).—Medals of Turkish Sultans (Plate XIV)	287
LAWRENCE (L. A.).—The Coinage of Edward III from 1351 (Plates XV-XIX)	417
SYMONDS (HENRY).—Mint Accounts and Documents of Edward IV	99

ORIENTAL NUMISMATICS.

WHITEHEAD (R. B.).—Some Notable Coins of the Mughal Emperors of India. Part II (Plates XXIII-XXV)	361
---	-----

REVIEWS OF BOOKS.

Aes Grave: A Study of the Cast Coinage of Rome and Central Italy. By the Rev. E. A. SYDENHAM	113
Recueil Général des Monnaies Grecques d'Asie Mineure. By W. H. WADDINGTON, E. BABELON, and TH. REINACH. Vol. I, Pt. 1, 2nd ed.	303
The Work and Life of Solon. By KATHLEEN FREEMAN	304
Catalogue of the McClean Collection in the Fitzwilliam Museum. Vol. II. By S. W. GROSE	476
The Social and Economic History of the Roman Empire. By M. ROSTOVITZEFF	477
La Médaille et les Médailleurs. By JEAN BABELON	478
La Vita di Benvenuto Cellini. Ed. by PAOLO D'ANCONA	480
Matteo dei Pasti. By A. CALABI and G. CORNAGGIA	481
Select Greek Coins. By GEORGE F. HILL	483
Historical Studies in Mughal Numismatics. By S. H. HODIVALA	485

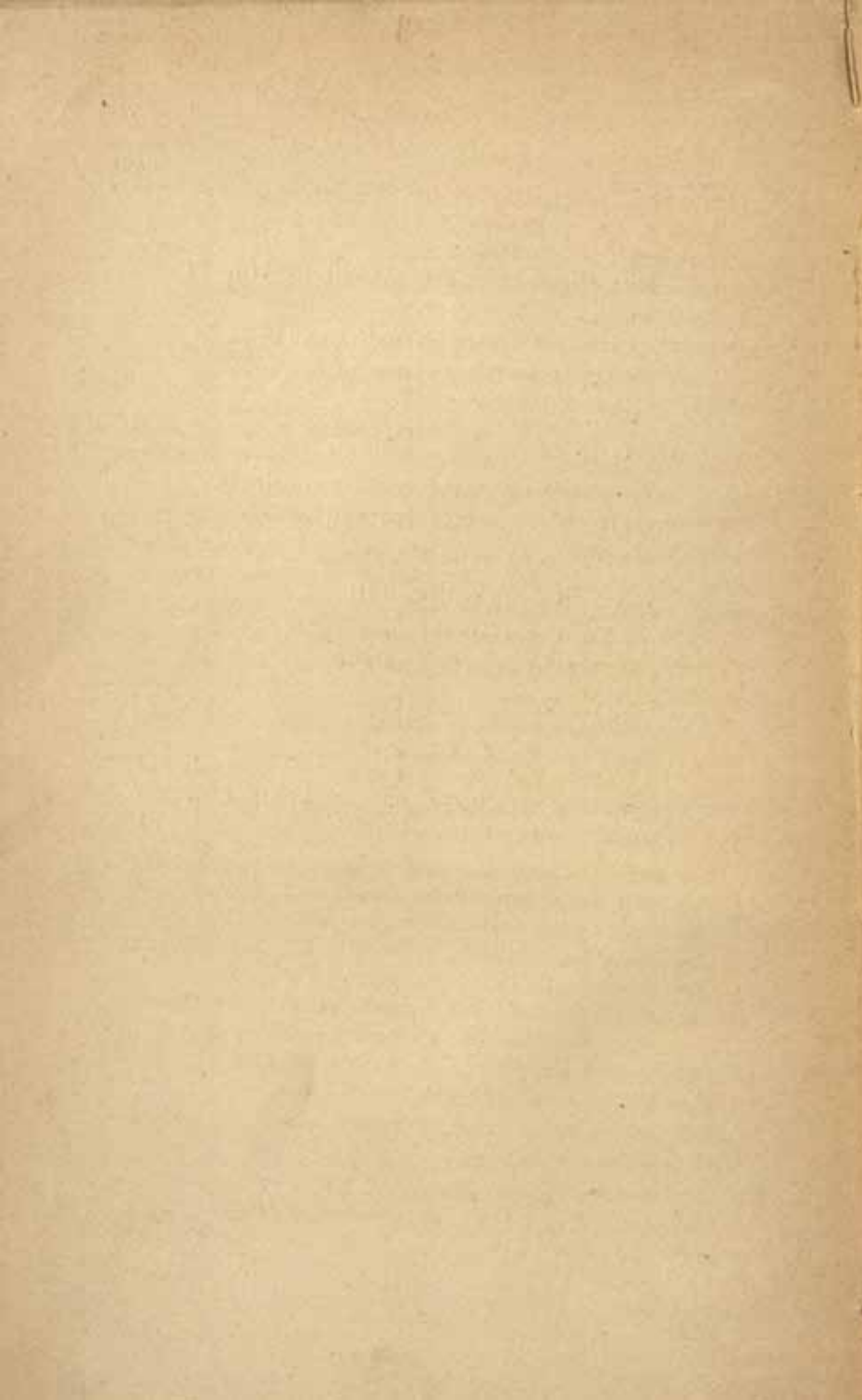
	PAGE
INDEX	487

LIST OF PLATES CONTAINED IN VOL. VI.

PLATES

- I-III. Sicilian and Magna-Graecian Coins.
 IV. Later Pegasi of Corinth.
 V-VI. British Museum Greek Acquisitions.
 VII, VIII. Aegean Mints.
 IX-XI. Alexander the Molossian of Epirus.
 XII, XIII. Restored Coins of Trajan.
 XIV. Medals of Turkish Sultans.
 XV-XIX. Coinage of Edward III.
 XX-XXI. Corinthian Pegasi.
 XXII. Roman and Byzantine Coins.
 XXIII-XXV. Notable Mughal Coins.

PROCEEDINGS OF THE ROYAL NUMISMATIC SOCIETY
 (separately paged) 1-30



I.

SELECT SICILIAN AND MAGNA-GRAECIAN
COINS.

SOME WITH NEW ARTISTS' SIGNATURES.

(SEE PLATES I-III.)

THE Society may like to have an account of some exceptional coins of Sicily and Magna Graecia from my Collection. Many of them are unpublished, and they present some new Artists' signatures of exceptional interest. Certain novel types with facing heads dating from the last quarter of the fifth century B.C. will also be found to have a special importance in the history of Greek numismatic art.

TARENTUM.

1. *Obv.*—Helmeted horseman grasping in his right hand the bridle of a cantering horse, and with his left holding a round shield behind him. In field above to l., - - - H; beneath horse, Δ.

Rev.—TAPAΞ (r.). Taras riding sideways on dolphin holding out a kantharos with his r. hand and with his left resting on the dolphin's tail. Beneath the dolphin, E and curling waves.

Didrachm. Wt. 120.5 grs. [Pl. I. 1.]

This coin belongs to Period III of my "Horsemen", but varies both in its obverse and reverse types from any known specimen. The signature Δ is confined to this Period, occurring on a coin of Type L

(4) and on the same side of Type M, in both cases coupled with K on the reverse. The piece appears to be unique.¹

2. *Obv.*—Naked youth vaulting off horse which canters r. His right hand rests on the back of the horse's neck and with his left he holds out a small round shield behind him. Beneath horse, K and scallop shell.

Rev.—Taras raising himself on dolphin's back with his right knee bent under him, so as to aim downwards with a trident held in his right hand. His left hand thrown out behind him grasps a cuttle-fish which he appears to use as a whip for his marine steed. Beneath dolphin, TAPAΞ.

Didrachm. Wt. 121.5 grs. [Pl. I. 2.]

This coin, from the Carosino hoard, is unpublished. Like the preceding, it must be classed with the issues of Period III, more than one type of which shows Taras fishing with a trident spear.

The signature K appears to refer to the artistic engraver whose name appears as KAA in the succeeding period. The designs both on obverse and reverse are themselves picturesque and original.

3. *Obv.*—Naked Ephebos vaulting off cantering horse, holding bridle in one hand and with the other holding out small shield, as last. The horse is of very massive proportions. Beneath it a large A.

Rev.—Taras astride on dolphin with his left hand resting on its back behind and his right apparently extended with open palm (as III, P. 16). Beneath dolphin, Ξ and TAPAΞ.

Didrachm. Wt. 120 grs. [Pl. I. 3.]

¹ Hobart Smith Sale, 1909; Cat. No. 78.

This unpublished coin also belongs to Period III, though the signature Σ has been hitherto known only on didrachms of Period II.

4. *Obv.*—Naked horseman in crested helmet cantering r. on horse of magnificent proportions with curling mane. He holds a large round shield behind him and wears a broad belt. His back is half turned to the spectator, thus displaying its well-developed muscles. Beneath horse, \dagger .

Rev.—Taras seated sideways on dolphin to left, holding out with his r. hand a small one-handled vase and with his left resting on dolphin's back behind him. In field r., $\text{TAPA}\Sigma$ in small letters. Beneath dolphin, Γ and curling waves.

Didrachm. Wt. 121 grs. [Pl. I. 4.]

This coin seems to be unique except for a specimen in the *Cabinet des Médailles* which I was able to include in the supplementary Plate of my "Horsemen" (xi. 5). The present specimen is in much more perfect preservation and brings out the details of the obverse type, which must be regarded as one of the chief masterpieces of the Tarentine mint. The signature \dagger is associated with KAA and Δ on the type which shows a standing youth taking hold of the bridle and forelock of a horse with a boy rider.²

5. *Obv.*—Naked boy crowning stationary horse, to r., with its off foreleg raised. Beneath, a flying owl.

Rev.—Taras riding l. on dolphin, holding cornucopias in his right hand and the left resting on dolphin's back. In field r., $\text{TAPA}\Sigma$; beneath dolphin, $\dagger \text{H}$.

Didrachm. Wt. 121.5 grs. [Pl. I. 5.]

² "Horsemen" &c., Pl. IV. 8 and p. 80 (Per. IV, L).

Of this type ("Horsemen" &c., Period V, Type F, p. 105) I have been able to trace only one other example, which is in the Santangelo Collection at Naples.

HERACLEA.

6. *Obv.*—Head of Athena to right in crested Athenian helmet adorned with Skylla hurling stone. Behind helmet, **A**. In microscopic letters along the base of the crest, **ΑΡΙΣΤΟΞΕΝΟΣ**.

Rev.—Herakles strangling Nemean lion. In field l., club. Between Herakles' legs in minute letters, **ΑΡΙΣΤΟΞΕ**.

Didrachm. Wt. 115·2 grs. [Pl. I. 6.]

This remarkable piece, of which only one other example is known,³ affords the most complete existing illustration of the practice of artistic engravers of signing with a single letter in their official capacity while hiding their full name in a microscopic manner.⁴ Another good instance of this is supplied by the same Aristoxenos at Metapontum, on the next coin here described, where he inserts between the legs of a large **A** the first two syllables of his name.

METAPONTUM.

7. *Obv.*—Female head to l., with diadem above forehead and hair rolled up behind. She wears a boat-shaped ear-ring and a necklace with lion's head in front. Behind, a large **A** with **ΠΙΞΤΟ** in small letters in the lower part of its arch.

Rev.—Ear of barley with leaf. To l., **METV**; above the leaf, one-handed vase.

Stater. Wt. 117·3 grs. [Pl. I. 7.]

³ In the Imhoof-Blumer Collection, now in the Berlin Museum (*Berliner Blätter*, 1869, Pl. LIII. 2).

⁴ See "Horsemen" &c., pp. 118, 119.

From the same dies as the British Museum specimen, No. 72.⁵ By inadvertence, in the Plate for the reverse of this coin is substituted that of another, with obverse similar to No. 8, and with $\Upsilon\Lambda$ between the leaf and the ear.

8. *Obv.*—Female head to r. with hair confined behind by 'sphenone' ornamented by stars. She wears a drop ear-ring. Behind neck, $\Theta\Delta\Upsilon\Lambda$.

Rev.—Ear of barley with leaf to r. To l., MET .
Stater. Wt. 118 grs. [Pl. I. 8.]

9. *Obv.*—Similar head to last; behind neck traces of signature $\Theta\Delta\Upsilon\Lambda$.

Rev.—Ear of corn with leaf to l., above which is "honeysuckle". In field to r., ΜΕΤΑΡΟΝ .⁶
Stater. Wt. 116 grs. [Pl. I. 9.]

The last two specimens bear the engraver's signature $\Theta\Delta\Upsilon\Lambda$, which has hitherto curiously escaped recognition. The $\Upsilon\Lambda$ on the reverse of the coin mentioned makes it possible that the word should be read backwards as $\Lambda\Upsilon\Delta\Theta[\Sigma]$ —a common Greek personal name. It may be suspected that these letters, which are finely executed, had been engraved on what is obviously an old and defaced die.

The style of the coins signed $\Theta\Delta\Upsilon\Lambda$ follows closely on that of those with the signature of Aristoxenos.

10. *Obv.*—Head of Demeter to right with wreath of corn, and veil falling from the back of her head. She wears a triple drop ear-ring. In field to right $\Delta\text{ΑΜΑΤΗΡ}$; behind neck, K .

⁵ See L. Forrer, *Notes sur les signatures de Graveurs sur les monnaies grecques*. This obverse is correctly published by Garrucci, *Le Monete dell' Italia Antica*, Pl. CIII. 13. Unfortunately on the B.M. specimen the signature is indistinct and it is described (Cat., p. 247, No. 72) as "a pyramidal object, one side parallel to neck, inscribed PIKI ?"

⁶ The same reverse is coupled with the didrachm, B.M. Cat., No. 86.

Rev.—Ear of barley with leaf r. on which is perched a bird with open wings; beneath it a moving snake. In field l., **META**, and, below, **API**.

Stater. Wt. 116 grs. [Pl. I. 10.]

The combination of the signatures **K** and **API** on the obverse and reverse respectively of this unique piece recalls the collaboration of **KΑΛ** and **API** on artistic types of Period IV at Tarentum. It seems possible that we have here to do with a later Aristoxenos. The head of Demeter as here shown seems to be taken from the earlier series of fine Tarentine gold staters representing this type.

11. *Obv.*—Youthful head of Corn Goddess with flowing hair, wearing barley wreath, triple ear-ring, and necklace. In front is her cross-torch, and the inscription **ΔΑΜΑΘΗΡ**. Behind head, **K**.

Rev.—Ear of barley with leaf to left. Above it a crab, and below **ΑΡΧΙΡ**. In field r., **META**.

Stater. Wt. 120·1 grs. [Pl. I. 11.]

This exquisite type, representing a revival of an earlier design with the signature of Aristoxenos, is of special interest as showing what we should naturally take as a portrayal of the daughter Goddess Korê with the mother's name.⁷ The crab at a somewhat later date is specially connected with the Brettians.

POSIDONIA.

12. *Obv.*—Poseidon to r. brandishing trident, and setting his left foot on a dolphin. In field l., **ΠΟΞΕΙΑΔ**.

Rev.—**ΠΟΞΕΙΑ** (*sic*) in field above. Bull to l. on striated base setting his right forefoot on a dolphin.

Stater. Wt. 119 grs. [Pl. I. 12.]

⁷ I have illustrated and discussed this piece in my "Recent Find of Magna-Graecian Coins", &c., *Num. Chron.*, xviii, pp. 147, 148, and Pl. VI. 1.

This, apparently unique, piece^s may contain a covert historical allusion such as we sometimes meet with on Tarentine coins. The dolphin on which both the eponymous divinity of Posidonia and the civic bull (inherited from Sybaris) set their feet is the type of Zanklê, taken over by Messina together with the hare. The relative maritime positions of the two cities makes it easy to suppose that their relations were not always peaceful, and these allusive designs may well refer to some naval success of the Posidonians against the city of the Straits which history has not recorded. To judge from its style the coin itself, dates from about the middle of the fifth century B.C.

MESSINA.

13. *Obv.*—Head of Apollo laureate to right with long hair falling down behind neck. In field r., ΜΕΣ ΜΑΙΩΝ.

Rev.—Female head, perhaps Persephone, three-quarter facing r., the hair bound above with two interlaced ears of barley, and falling, below, over her shoulders. She wears a necklace. In field left an oenochoê.

Æ. Wt. 114 grs. [Pl. II. 13.]

On account of its exceptional preservation I have included this beautiful bronze type in the present selection. It presents a beautiful olive-green patina, and was acquired by me at Naples in 1912. The head of Apollo so closely reproduces that on the electrum coinage of Syracuse issued in Timoleon's time that it must belong to about the same date.

RHÊGIUM.

14. *Obv.*—Lion's scalp facing, three pellets in small circle above each eye.

* From the Benson Sale, 1909, Cat. 171.

Rev.—**RECINOS** in field, r. Oekist of Rhêgion, within olive wreath, seated to left on a throne with columnar foot. The middle part of his body and his legs are draped in formal folds. His right foot rests on a low stool, and under the throne is a rose-bud symbol. On the base of the throne is the artist's signature $\Xi\cdot\chi = \kappa[\text{P}\text{A}\text{T}\text{H}\text{E}\text{I}\text{G}\text{P}\text{O}\text{S}] \text{E}[\text{G}\text{O}\text{I}\text{E}\text{I}]$.

Tetradrachm. Wt. 261.5 grs. [Pl. II. 14.]

A specimen of this type existed in my former collection (now Jameson), and I have long been aware of its importance as settling the claim of Kratesippos as against Hippokrates as an artistic die-sinker at Rhêgion. But in no published account, so far as I am aware, has the significance of the dot between the two initial letters been recognized. The flower-bud beneath the throne is a rose resembling the Rhodian type, and not a pomegranate as has been stated.

15. *Obv.*—Lion's scalp facing of the boldest character and exceptionally high relief.

Rev.—**PHGINON**, partly off the field. Laureate head of Apollo to right in the purest style. Behind bay-leaf and artist's signature, $\Gamma\Upsilon$.

Tetradrachm. Wt. 267.5 grs. [Pl. II. 15.]

Whether we regard the bold relief of the lion's scalp or the beauty and nobility of the head of Apollo on this unique coin, their engraver, of whom this is the solitary record, must take his place in the first rank. The signature itself suggests on a coin of Rhêgion its completion as $\Gamma\Upsilon[\Theta\text{A}\text{G}\text{O}\text{P}\text{A}\text{S}]$, but the floruit of the celebrated Rhegine sculptor of that name was approximately 488–468 B. C.,⁹ and the date of the present piece must be brought down some forty years later. It is

⁹ Overbeck, *Geschichte der griechischen Plastik*, i, p. 202.

always possible, however, that a grandson of the sculptor who inherited his name may have also practised his artistic craft. There is at all events a certain largeness in these designs that might mark a hand practised in the greater art.

MESSANA.

16. *Obv.*—Biga of mules driven by female charioteer with flowing drapery; small winged Niké crowning the mules' heads. In ex., olive spray with berries (somewhat double-struck).

Rev.—**MEΣΣANION** (retrograde). Hare bounding to right. Beneath it a locust on a vine-spray showing leaf and bunch of grapes.

Tetradrachm.¹⁹ Wt. 261 grs. [Pl. II. 16.]

With the exception of the next piece, only two examples of this magnificent reverse are known. The beautiful design of the locust settled on the vine-spray which occupies so large a part of the field of the coin well illustrates the naturalistic feeling of Western Greeks, Sikeliote and Italiote alike.

17. *Obv.*—Biga of mules walking to left driven by female charioteer with flowing drapery. In ex., two dolphins facing each other.

Rev.—Similar to last.

Tetradrachm. Wt. 264.5 grs. [Pl. II. 17.]

No other specimen is known in which the obverse type here shown is coupled with the locust design on the reverse.

18. *Obv.*—Biga of mules driven by female charioteer in long close-fitting robe. The fore-part of the further animal is well exposed. Above, a wreath. The whole is contained in a beaded circle.

¹⁹ From the Landolina Collection.

Rev.—Hare leaping to left, inscription beneath it **ΜΕΞΞΑΝΙΩΝ**, beneath which dolphin, r. In field above, a flying bird, apparently a dove, seen in profile.

Drachm. Wt. 63 grs. [Pl. II. 18.]

This drachm is unique, and the denomination is itself almost unknown among the Messanian issues. It is also one of the very few coins that show the advanced epigraphy **ΜΕΞΞΑΝΙΩΝ** with the upright **Ν** and the omega. We may conclude, therefore, that it was struck in the years immediately preceding the destruction of the city by the Carthaginians, under Himilcon, in 396 B.C. The tetradrachm type with the flying bird which otherwise corresponds with this smaller piece shows the legend **ΜΕΞΞΑΝΙΟΞ**, a form which evaded the necessity of introducing the new orthographic fashion marked by the use of the **Ω**. It is noteworthy that one of the two reverse types of tetradrachms on which the **Ω** appears bears on its exergual line the signature of the monetary artist Kimôn.

19. *Obv.*—Female charioteer driving biga of mules to left; the fore-part of the further mule well exposed. Inscription below and round, **ΜΕΞΞΑΝΙΩΝ**. Beaded circle.

Rev.—Hare leaping r.; scallop-shell above, and sea-monster ('pistrix') below. In beaded circle.

Æ. Wt. 30.5. [Pl. II. 19.]

This unique piece, which seems to be the only example of a Messanian hemidrachm, also shows the late epigraphy **ΜΕΞΞΑΝΙΩΝ**, and belongs to the same epoch as No. 18.

20. *Obv.*—Head of Nymph Pelôrias with hair bound up in a sphenoné of network. On the ampyx above her forehead is an eight-rayed star and she wears a curled ear-ring. Below and behind her neck is a dolphin; in front of her head is the inscription **ΠΕΛΩΡΙΑΞ**.

Rev.—Ornamental trident, with scallop above and hare below. Inscription round, ΜΕΞΞΑ-ΝΙΟΝ.

Æ. Wt. 67.5 grs. [Pl. II. 20.]

The head on this artistically engraved piece, which is otherwise unknown, closely resembles Syracusan coins in Euainetos's early manner. The form of the ear-ring also agrees with this. On the other hand, while the reverse shows the more archaic epigraphy, the omega is already introduced into the name of the nymph.

AKRAGAS.

21. *Obv.*—Two eagles on hare which lies on its back upon a rock with a plant in front. One bird has his head lowered as if to seize on the hare with his beak. The other has his head thrown back. This attitude has been taken to indicate that the bird is screaming. A more prosaic explanation is to be found in the throwing back of the head of birds of prey after taking a mouthful of their quarry the better to swallow.¹¹ In this and several other cases the eagle's beak is closed, which agrees better with the latter interpretation. On the lowermost feather of the closed wing of the nearer bird is the artist's signature, ΠΟΛΥ. The civic inscription is off the field that has been preserved.

Rev.—Nikē flying left to crown charioteer of quick quadriga. The design divides the horses into two pairs, but only a small fragment is visible of the fore-part of the foremost horse. In ex., crab.

Tetradrachm. Wt. 263.5 grs. [Pl. II. 21.]

¹¹ M. Arthur Sambon takes this view in the paper cited below, p. 2: "L'aigle le plus près du spectateur . . . rejette la tête en arrière pour engloutir."

M. Arthur Sambon has discussed this unique piece (once in the Mathey Collection¹²), in the *Revue Numismatique* for 1914.¹³ He rightly compares its style to the earlier group of tetradrachms with the two eagles thus shown as illustrated by Salinas, Pl. VIII. 7, where the civic inscription takes the early form **ΜΟΜΙΤΜΑΤΑΡΧΑ**. At the same time he regards the type as having been introduced by an artist with sculptural instincts, and taking his model from the coins of Elis, on the occasion of the victory of the Akragantine runner Exainetos in the Olympic games of 412 B.C. It seems to me, however, hardly safe in the first place to ignore the suggestions supplied by the epigraphy of the coin, and in the second place to allow only six years, in all probability indeed, less, for the successive groups of this tetradrachm series. For Akragas was destroyed by the Carthaginians in 406 B.C.

22. *Obv.*—Eagle with spread wings to right, holding serpent in his claws. Inscription not preserved.

Rev.—Crab with vine-leaf between his claws. Beneath, a spiny fish, probably *Polyprimum cernium*.¹⁴

Didrachm. Wt. 122.5 grs. [Pl. II. 22.]

¹² Acquired in the Egger Sale (Cat. XLV, No. 235). M. Mathey subsequently discovered the inscription when cleaning the coin.

¹³ *Polyclète, orfèvre et graveur de médailles à Agrigente (R. N., 1914, pp. 1-13).*

¹⁴ This is E. v. Martens' attribution (in Imhoof-Blumer und Keller, *Tier- und Pflanzenbilder auf Münzen und Gemmen*, p. 44), of what is certainly the same fish on the tetradrachm, Salinas, Pl. VIII. 2. The fish on the present piece is clearly taken from the larger coin, but is identified (*loc. cit.*) with a smaller fish, *Scorpaena*.

This coin, from the Hermann Weber collection,¹⁵ with the eagle to the right is a unique variety.

23. *Obv.*—Two eagles devouring hare, as No. 21, above, but in this case the nearer eagle has its beak partly open. Finer and slightly later style than No. 21, above.

Rev.—[ΑΚΡΑ]ΓΑΝ on the upper and lower circumference. Freshwater crab (*Telphusa fluviatilis*), with cray-fish below and barley-corn to left. The upper part of the crab's shell is made to represent a man's face.

Drachm. Wt. 62.5 grs. [Pl. II. 23.]

Probably the most brilliant existing specimen of this excessively rare coin. The reverse type seems to have been suggested by the design of the crab on the tetradrachm given here for comparison in Pl. II, Fig. 23 *a*. Such an anthropomorphization itself stands alone in the whole range of Greek art, and may possibly connect itself with some old Sicilian folk-lore founded on a fancied resemblance of this kind. It is perhaps worth while recalling that the crab (*καρκίνος*) who tried to assist the Hydra in its struggle with Héraklès by pinching the hero's foot was afterwards euhemerized into a man of the same name. The crab that Héraklès crushed with his foot was transformed by Héra into the star from which the constellation of Cancer is named.

ΚΑΤΑΝÉ.

24. *Obv.*—Head of Apollo, facing, laurel wreathed; below, ΑΡΟΛΛΩΝ. On either side strung bow and lyre. To left, artist's signature, ΧΟΙΡΙΩΝ.

¹⁵ Cat. Forrer, 1921, No. 1197.

Rev.—Quadriga with charioteer crowned by Nikè and galloping horses in high action, divided into two pairs, with meta behind in shape of an Ionic column. In ex., ΚΑΤΑΝΑΙΩΝ and crayfish.

Tetradrachm. Wt. 265·7 grs. [Pl. III. 24.]

25. *Obv.*—AMENANOΞ above head of boy River-God three-quarters facing, with flowing hair confined by diadem above forehead. To right, two fishes rising behind head. In field to left, a crayfish. Beneath section of neck, artist's signature, ΧΟΙ.

Rev.—Athena holding shield and driving quadriga with horses in high action in two groups. In field above, Nikè flies left to crown the driver. In ex., maeander.

Drachm. Wt. 64·5 grs. [Pl. III. 25.]

GELA.

26. *Obv.*—Young head of River-God, three-quarters facing to right. The hair, which falls in long tresses on either side of the face, is bound above the forehead with a double fillet and forms a low crown over the top of the head. There are no traces of the horns, so prominent on the companion piece with the profile head, described below. Around are three river-fishes swimming. These, which are clearly identical with the fish that appear on the parallel type, have been identified by Dr. Keller¹⁶ with the grey mullet (*mugil*: Greek *κεστρείς*), a common fish of Mediterranean markets, that frequents brackish estuaries.

Rev.—Nikè in long chiton of charioteer driving quadriga. The horses are divided into two pairs, the nearer of which in each case alone is visible in profile. The head of the nearest horse is raised. The horses are shown in measured movement, pacing, with the off fore-leg and off hind-leg raised.

¹⁶ *Tier- und Pflanzenbilder, &c.*, Pl. VII. 1; p. 44.

In the field above is an olive wreath laid horizontally.

Tetradrachm. Wt. 251.5 grs. [Pl. III. 26.]

This unique coin, which must be regarded as slightly earlier than a fellow-piece with the profile head, supplies an extraordinarily interesting illustration of the attempt of a monetary artist to represent a face turned towards the spectator. His endeavour is helped out by the fillet above the forehead and the broad crown of hair. That no other specimen of this type is known, whereas several examples of the tetradrachm with the profile head have come to light, might be taken to imply that the effort was not regarded by his contemporaries as wholly successful. Although the date of the coins can hardly be earlier than some of the three-quarters facing heads that appear about this time in various Sicilian mints, the engraving does not show the ease displayed by Kimôn and Eukleidas at Syracuse, by Euainetos at Kamarina, or by Herakleidas and Choiriôn at Katanê. At Katanê, indeed, as already illustrated by No. 24 above, Choiriôn, with the aid of the bay wreath, produced a successful full-facing head of Apollo, very shortly after this date, while at Selinus the same effect was very nearly achieved before 409 B.C. in the youthful head of Hêrakilês (shown for comparison in Pl. III. 26 a), where again the lion's mask afforded as much assistance to the design as did the triple-crested helmet of Athena to Eukleidas at Syracuse.

For comparison, I have included in the Plate a specimen of the tetradrachm with the profile head, formerly in Sir Hermann Weber's Collection.¹⁷

¹⁷ Rome sale, 1883, Lot 39: H. Weber Coll., Cat. Forrer, 1330.

27. *Obv.*—Youthful head of River-God, Gelas, in profile to left, with short hair confined by fillet and a short horn visible on nearer side of head. Around, three fishes (grey mullet) swimming.

Rev.—Niké, clad in long robe of charioteer, and her hair drawn up into a top-knot, driving pacing quadriga, the horses of which are divided into two pairs. They hold their heads evenly at the same angle. In field above, wreath with sprays running downwards. In ex., ΓΕΛΩΙΟΝ.

Tetradrachm. Wt. 259.5 grs. [Pl. III. 27.]

Owing partly to its longer neck and to the greater simplicity in the treatment of the hair, the head of the River-God on this coin is finer than that of the analogous designs by Exakestidas at Kamarina, and by Euainetos and Choiriôn at Katanê.

28. *Obv.*—Head of young River-God l. with horn over forehead. His hair, which is unconfined by any fillet or diadem, flows freely down the side and back of his head in undulating locks. Behind the head is an olive spray and berry.

Rev.—Horseman with bare head and flowing locks galloping r., his chlamys flying out behind him. In field to r., ΓΕΛΩ[ΙΩΝ].

Didrachm. Wt. 115.5 grs. [Pl. III. 28.]

This unique piece, the obverse type of which seems to have been designed for a smaller flan, must evidently be reckoned among the most advanced types of Gela, and would have been struck not long before the destruction of that city in 405 B.C. The galloping horse and the rider's hair and cloak flying out behind in the wind show a very free style. Both the obverse and the reverse designs vary considerably from the known types of the Gelôan series.

SYRACUSE.

29. *Obv.*—**ΣΥΡΑΚΟΞΙΩΝ**. Head of Athena three-quarters facing, wearing triple-crested helmet decorated with palmette and scrolls, and necklace of pendants. On the right side of her face is visible part of an ear-ring of coiled type. Curling tresses fall down on either side of her head, and around are four dolphins swimming. The whole is in a plain border. On the central crest of the helmet is the inscription **EYK ΛΕΙΔ Α**, the signature of the artist Eukleidas.

Rev.—Persephone with raised torch driving quadriga with horses in high action, divided into two pairs. In field above, Niké flies right to crown the charioteer. In ex., ear of barley. Border of dots.

Tetradrachm. Wt. 262.5 grs. [Pl. III. 29.]

It is interesting to record that as some doubt has been thrown on the authenticity of this piece, formerly in the Benson Collection, it was subjected to a kind of inquest in the Coin Room of the British Museum in February 1909, in which Messrs. B. V. Head, H. A. Grueber, G. F. Hill, and myself took part, when it was pronounced unquestionably genuine. It proved, in fact, to be an earlier impression from the die represented by B.M. Cat. 198, before it was fractured, and is also the only impression of this die showing all four dolphins. By the kindness of the Keeper of the Department of Coins and Medals, a cast of the B.M. specimen is placed beside the present type in Pl. III. 29 a.

30. *Obv.*—Head of Arethusa, three-quarters facing to left; the locks of her hair float regularly upwards with small coils at their extremities. She wears coiled ear-rings and a necklace of pendants. On either side are two dolphins, as if swimming towards her neck, and at the flank of that to the right is the signature **EY**.

Rev.—Youthful hero Leukaspis, wearing crested helmet and armed with a spear and round shield, attacking foeman; on the ground in front a conical helmet lies on its side. Between his legs is visible a globule. In field to l., ΣΥΡΑΚΟΞΙΩΝ. In ex., ΛΕΥ ΚΑΣΠΙ[Ξ].

Drachm. Wt. 66.5 grs. [Pl. III. 30.]

Previous to my observation of the signature EY on the obverse of this unique coin, it had been attributed to Kimôn.¹⁸ That the artist who here signs is rather Eukleidas than Euainetos may be inferred both on grounds of style and from the frequent association on drachms of the Leukaspis of the reverse with Eukleidas' obverse type of the three-quarters facing head of Athena. The character of the eyes greatly resembles that of the Athena head in the tetradrachm No. 29, above. The nearest parallel to the head of Arethusa here shown is, however, supplied by the drachm of Kamarina, of which a reproduction is set beside it in Pl. III. 30*a*.¹⁹ It is unfortunately not signed.

HERBESSOS.

31. *Obv.*—Head of Sikelia to left, wreathed with myrtle, within plain circle.

Rev.—Free horse galloping right; within plain circle.

N. Stater. Wt. 117 grs. [Pl. III. 31.]

This remarkable and inedited coin is the first example of a Sicilian gold stater struck outside Syracuse. It seems to be of pure gold, and its weight (=7.581 gm.) conforms to that of the usual electrum staters

¹⁸ F. S. Benson Sale, 1909, No. 345; So too L. Forrer, *Notes sur les signatures de graveurs sur les monnaies grecques*, p. 215. It was formerly in the Hoffmann Collection (Sale, 1898, No. 1461).

¹⁹ From the B.M. Collection, Cat. No. 20.

of Carthage.²⁰ We must infer that it belongs to the same epoch—the time of Timoleôn's liberating movement in the island—as the bronze coinage of Herbessos with a similar myrtle-crowned head of personified Sikelia, which recurs on the bronze issues of Morgantina. In both these cases the reverse type showing an eagle seizing a serpent has a direct reference to the omen that preceded the battle of the Krimisos, when Timoleôn's soothsayer saw an eagle, the minister of Zeus, with a serpent held in his talons and screaming triumphantly in presage of victory.²¹ In the present case the free horse on the reverse reproduces the type of Timoleôn's fine bronze issues at Syracuse with the head of Zeus Eleutherios.

32. *Obv.*—Head of Sikelia to right, myrtle-crowned, within plain border.

Rev.—Lyre and inscription round, ΕΡΒΗΞΕΙΝΩΝ.
(Re-struck over a Syracusan bronze coin of Timoleôn's time, with the head of Zeus Eleutherios and free horse.)

Æ. Wt. 220 grs. [Pl. III. 32.]

This is the only known specimen of this type. The lyre also accompanies the head of Sikelia on bronze coins of the sister city of Alaesa.

²⁰ e.g. L. Müller, *Numismatique de l'ancienne Afrique*, ii, p. 84, Nos. 48-53.

²¹ Plutarch, *Timoleôn*, xxvi: see my *Numismatic Lights on the Sicily of Timoleôn*, in Freeman, *Hist. of Sicily*, iv, p. 349 seqq.

ARTHUR EVANS.

II.

SOME PROBLEMS OF THE LATER COINAGE OF CORINTH.

[SEE PLATE IV.]

NOTHING of late has made me realize more acutely the obvious fact that "time flies", than the looking up of a certain promise which I made to the Society in happy pre-war days. I pledged myself in a paper read in 1909 to write at no very distant date some notes on the fourth-century coins of Corinth. There has been a good deal in the intervening years to distract one's attention from Pallas and the Pegasus. But having in the autumn of 1925 the unusual boon of a few days' leisure, I must redeem my promise.

The subject of the fourth²-century coinage of Corinth is treated in a very cautious fashion by Dr. Head in his Introduction to the British Museum volume on "Corinth and its Colonies". He has made his periods of arrangement long, and has refused to commit himself to any definite statement as to the causes of the extinction of a currency which was for many generations a predominating factor in the commerce of the Hellenic West, on both sides of the Ionian Sea. It is rash to seek definite results when the old masters of our science have uttered no certain sound. But in this paper I have dared to explore the difficult period after 338 B.C., of which the Second Edition of *Historia Numorum* says no more than:

“Corinth though occupied by a Macedonian garrison from 338 B.C. to 243 B.C., when it was delivered by Aratus, does not seem to have been deprived of the right of coinage, for its Pegasus-staters continued to be struck, though much less plentifully than of old, until it became a member of the Achaean Confederation. But in 223 B.C. Corinth was surrendered by the League to Antigonos Doson, and between that time and 196, when it was set free by the Romans and reunited to the League, it does not seem to have been allowed to strike money—unless indeed some bronze pieces with the heads of Poseidon and Heracles can be assigned to this period.”

My endeavour to-day is to try to expand this very short statement into a more detailed consideration of the course of the Corinthian coinage between 338 and 223 B.C. Every one has a general knowledge of the aspect of the very numerous staters of Corinth struck after 400 B.C., or as I tried to demonstrate in my paper of 1909, struck after 394 B.C. There come first a long series of coins in which the head of Pallas on the reverse has a symbol behind it, but no signature of a magistrate by initials; and second, a still longer series in which these initials are added. The maximum number of letters in them is four [EYTY], the minimum one [A Γ Δ E I Λ N]. The usual number is two [AΛ AY AP ΔI EY NI, &c.]. It is obvious that a one-letter signature would tend to be insufficient after a few years, since many monetary magistrates would have the same initial in the very common letters A E Δ, &c., so that the issues of a predecessor and a successor with the same initial would be indistinguishable, and it might well happen that two men

with the same first letter to their names might come in immediate succession: Ariston might follow Antiochus, or Eubulus might relieve Eteocles. There was even a lesser but similar danger with two-letter signatures, owing to the great number of men's names commencing with **EY** or **ΔΙ**.

There is a certain overlapping between the series of staters with and those without magistrates' initials—two or three adventurous men put on their initials long before it was made obligatory to do so. **EYTY**—Eutyclus, no doubt—and **EYMA** (Eumachus?) were early examples. But roughly speaking, the class with symbols only is earlier than the class with both symbols and magistrates' initials.

The latter part of this second series is composed of a block of ten issues, each consisting usually of seven, eight, or nine symbols of the most varied kinds arranged under a single magistrate's initials—e.g. the magistrate **N** has nine subdivisions of his series, distinguished respectively by a corn-wreath, three crescents, a standing Ares, a prow, wine cup, cock's head, bucranium, acanthus, and a term. One would suspect that these are symbols of annual sub-magistrates, serving under a chief magistrate whose term was for perhaps ten years—more probably only "quamdiu se bene gesserit", as long as the government chose to retain him. The highest number of symbols found in connexion with one set of initials is nine, those belonging to the **N** just cited and **AP**. The lowest is one, of magistrates **NI** and **Λ**. Of course the presiding magistrate might die in office, or might be superseded, either of which chances would account for the very varying number of symbols found in connexion with the different sets

of initials. That the symbol-owning sub-magistrate did not go out when his superior the initial-owner ceased to bear office is shown by the fact that occasionally the symbol is found in connexion with two sets of initials, on two coins which are obviously, from their style, of precisely the same date. E.g. the sub-magistrate whose symbol was a cuirass [I suspect his name to have been the not unknown "Thorax"] is found coining under magistrate **AA**, and also under magistrate **Δ**. Clearly, then, the sub-magistrate's tenure of office was independent of that of the presiding initialled magistrate [see **Pl IV. 1, 2**].

All this series of magistrates and sub-magistrates goes on undisturbed for a period which we must calculate as at least fifty or sixty years, and then comes to an end. On the whole we may say that it is a continuous and undisturbed series, and that we can trace in it a gradual but slight decline in artistic merit. Dr. Head saw this when he allotted the series of the magistrates **E**, and **EYB**, and **EYΘ**, &c., to the first half of the fourth century, and those of magistrates **A**, **AA**, **Δ**, &c., to the second half.

I hold that the last three series of this succession are those of the magistrates **AP**, **ΔI**, and **AY**, coming (I think) in that order. My reasons for so placing them are that these three series differ from all the earlier ones in two minute details of the reverse, the side of the coin with the obligatory head of Pallas.

(1) Down to the **AP** series all these heads show in front of the helmet of Pallas, just where the visor joins the skull-piece, a small hook, often like a swan's head, connected (no doubt) with the fastening of the crest, which crest (be it noted) never appears on

Corinthian staters, though it does occasionally on Corinthian-type coins of Ambracia, Anactorium, and Syracuse.

Now of the coins of magistrate **AP** this hook appears on those with the sub-magistrates' symbols cornucopiae, Palladium, chimaera [Pl. IV. 3, 5, 6]—but it is wanting on those with aegis, eagle, triton, plough, boar, ivy-leaf [Pl. IV. 7, 8].

And of the coins of magistrate **ΔΙ**, this hook appears only on those with symbol pine-cone [Pl. IV. 9]: it is wanting on those with symbols seated Zeus, Pallas with spear, Pallas Nikephoros, Artemis with torch, cow, wreath, bearded term [Pl. IV. 10, 11, 12]. It is worth while noting that the pine-cone stater is artistically superior to all the others, and therefore probably the earliest of the series.

The hook appears on neither of the known staters of magistrate **AY**, whose symbols are ivy-wreath and goddess with torch and cornucopiae [Demeter?]. [Pl. VI. 13, 14]. It does not show on any of the debased and inartistic coins which Dr. Head assigns to the early third century [Pl. IV. 15, 17, 18, 19, 20].

From these data we should, even if we had no corroboration, place the **AP**, **ΔΙ**, and **AY** coins at the end of the long series of normal coins of Corinth. But there is good corroboration, for—

(2) All the staters of Corinth which Mr. Head assigns to the middle fourth century, with one exception,¹ and all preceding staters also, have the hair of

¹ The only exception that I have found is one of the **N** series, with symbol three crescents, which has very straggling hair. I suspect this to be the series immediately preceding the **AP** issues.

Pallas neatly tucked down beneath her helm, and the leather cap under it, and only showing in front of or quite below them.

But beginning with some of the **AP** coins the hair frequently escapes from the helmet, and streams back over helm and cap in curls which look as if they were being blown back by the wind. This is visible on the **AP** coins with symbols triton, eagle, chimaera, and boar [Pl. IV. 4, 8], *not* on those with Palladium, cornucopiae, aegis, plough, ivy-leaf [Pl. IV. 5, 6, 7].

On the **ΔI** staters the hair keeps below the helm and flap only on the coin with pine-cone [Pl. IV. 9]—the most artistic and no doubt the earliest of the set; it straggles over the cap in more or less profusion in all the other seven varieties [Pl. IV. 10, 11, 12].

On both the **AY** staters the hair is blown back over the cap [Pl. IV. 13, 14]. So is it in all the later debased staters ascribed by Dr. Head to the third century [Pl. IV. 15-20].

This treatment of the hair, therefore, begins to be common in the **AP** series, has become almost universal in the **ΔI** series, and quite so in the final issues, which fall outside the long fourth-century sequence.

The effect of the juxtaposition of these facts with regard to hook and hair seems to me to prove the chronological sequence **AP-ΔI-AY**. But where are we to place these three series in the history of the Corinthian mint?

I agree with Dr. Head in thinking that there was no cessation of the autonomous issues of Corinth in consequence of the victory of Philip of Macedon at Chaeronea in 338 B.C., and the placing of a Macedonian garrison in the acropolis. Philip (and Alexander

after him in his earlier years) pretended to be the patron and ally of the subdued Greek cities, not to dominate them as an acknowledged sovereign. The farce was kept up for a long time. When Alexander, before starting on his great adventure, held the Congress at Corinth, he got himself voted the Commander-in-Chief of the expedition that was to revenge on the Persian empire the attack of Xerxes on Greece a century and a half before; he was not playing the role of a despot. Ostensibly he was taking up the pose that Agesilaus had adopted seventy years before, as the elected champion of Hellenism against Barbarism. He was not merely a Macedonian king ordering his subjects to provide him with men and money for the aggrandizement of his own kingdom. Though after Arbela he drifted into the pose of an oriental despot, and a divine or semi-divine personality, this transformation was not impressed by any outward exhibition of monarchic power over his distant Greek subject-allies. Only those who came out fresh from the west after 327 B.C., and saw him intoxicated by the possibilities of his new position, realized that the age of monarchy—even oriental monarchy—had arrived, and that the days of petty autonomous states were over. In his absence the affairs of Greece went on ostensibly as if the land was still a cluster of republics, which had merely deputed military powers to the king of Macedon for his Asiatic expedition.

I think that there can be no doubt that the ordinary Corinthian pegasus-staters continued to issue from the mint in the old style during the whole reign of Alexander till his death in 323 B.C. We need look for no check in the issues—though possibly Corinthian bankers may

have begun to wonder whether the arrival in Greece of enormous quantities of Alexander's new and beautiful gold staters and silver tetradrachms, with the royal name stamped upon them, was not something ominous. Would not the rise of a new imperial gold currency of great purity and beauty tend to damage the circulating power of an old silver currency, like that of Corinth, which had hitherto served as a medium of exchange not only in the city itself, but all up the coasts of Western Greece, and over the water in Sicily to a great extent, and to a less in Magna Graecia? For there are good proofs from coin-hoards, e.g. from those at Andritzena and Cyparissia which Mr. Newell has catalogued, that by 320 B.C. the Macedonian royal money was circulating everywhere, alongside with the old issues of Boeotia, Sicyon, Larissa, Elis, and the other states which had been issuing money freely in the middle of the fourth century. A coinage received everywhere for its good weight and purity, and because of the guarantee of a great power behind it, has a tendency to drive minor currencies into corners, and to depreciate their international circulating value. Such was the case with the English sovereign all over the near East in the days before the Great War—when it passed unquestioned everywhere, while other foreign issues were looked at somewhat askance.

I am inclined to make here, for what it may be worth, a suggestion about one of the last three series of the normal Corinthian issues, that which bears the magistrate's initials **AP**. Alone among all the series of the Corinthian mint, these nine pieces with symbols boar, ivy-leaf, plough, aegis, chimaera, Palladium, cornucopiae, and eagle [Pl. IV. 3-8]—all invariably

show round the head of Pallas a large wreath. Some see in it olive, some laurel, leaves. This addition to the normal type must have some meaning, as it never occurs before or after in the Corinthian series. As it lasts apparently for nine years—if the symbols, as is generally supposed, are annual signs—it points to some period of nine years in which the Corinthians imagined themselves to be blessed with a continual round of victories or of glorious peace. Looking round the chequered history of Corinth in the fourth century, I cannot identify any such period of marked and prolonged prosperity. Can it therefore be possible that the wreath marks the victories of the Hellenic league against Persia, of which Alexander was the champion and commander? The Congress at which he was nominated to that position had been held at Corinth, and the Corinthians may have considered themselves peculiarly bound to celebrate the successes of the league of which they had seen the foundation. We could make the series coincide with the reign of Alexander with high probability, so far as stylistic evidence goes, and I think the hypothesis is worth consideration.

The moment of disillusionment for the Greek states, which had fancied themselves still free during Alexander's absence in the remote East, came when his death, without any competent heir to succeed him, raised the question of what the new Macedonian empire was and was not to be. The so-called Lamian War of 323-2 B.C. was the attempt of the majority of the Greek states, headed by Athens, to assert their independence now that the great king was dead. The opportunity appeared excellent, since it was very

naturally supposed that Alexander's empire was a personal creation, and would break up with the death of its creator. He had left behind him only an infant son, an imbecile brother, and a pack of ambitious and contentious generals. Unfortunately the calculation of the patriotic Greeks was wrong—the data were mostly correct, and the generals were jealous of each other as had been supposed. But the newly created empire held together far longer than had been thought likely, and its forces were far greater than anything with which small Greek states could cope. For ten years Alexander had been enlisting and disciplining every mercenary soldier that could be found, and the size of the armies which he left behind him surpassed anything that had been seen before. The regent Antipater, though not helped by many of his colleagues as he should have been, proved strong enough to parry the first stroke of the Greek confederacy by his long defence of Lamia, and then to crush it, when he had received reinforcements, at the battle of Crannon. He granted comparatively moderate terms to the leaguers, who gradually fell away from the Athenians, the last power to hold out. Athens fell and Demosthenes died, and the pretence of the autonomy of the Greek states under a mere presidency of the Macedonian king was pretty well exposed in all its hollowness. But Antipater had professed to leave internal liberty to the vanquished cities of the league, on condition that they set up oligarchical governments managed by statesmen of the Philo-Macedonian party. And as Corinth had not stirred or joined the league, overawed by its Macedonian garrison, there would have been no reason for interfering with such a thing as its

issues of money. I therefore conclude that the last series save one of the Corinthian pegasus-staters of the old sort, those with the ΔI initials, probably belongs to the period from the death of Alexander to that of Antipater in 318 B. C., and for some years more, for the old regent's nominated successor Polysperchon was a professed friend of civic liberty, and in 317 B. C. issued an edict permitting the cities, where they might choose, to make an end of the oligarchical governments established by Antipater, and to administer themselves under such constitutions as they might please [Pl. IV. 9, 10, 11, 12].

For the next eight years there was bitter war all over Greece and Macedonia between Polysperchon and Cassander, the son of Antipater, who had refused to recognize his father's nominee as his legitimate successor. The war was specially lively in Peloponnesus, into which Cassander made two or three more or less successful inroads, capturing many cities, but, as we are specially told, not Corinth, which was held first for Polysperchon and then for his son Alexander till 308 B. C. In the middle of this war Polysperchon started striking tetradrachms of the type of Alexander the Great on a large scale, at Sicyon, Corinth's next neighbour, and apparently at other cities of Peloponnesus. It seems quite probable that this event marks the end of the long series of the old pegasus-staters. Polysperchon was in practical possession of Corinth, whatever show of autonomy he may have left to its magistrates. And if he made the Alexander-stater the regular coinage of his dominions, he may very likely have discouraged the continued issue of currencies which did not belong to the Macedonian system.

This, I must grant, is pure hypothesis. But it seems to me that there is a visible break in the art and appearance of the Corinthian money, and an obvious gap in its issue somewhere about 315 or 310 B.C.

The family of Polysperchon lost Corinth in 308 B.C., and Demetrius Poliorcetes got hold of it in 303 B.C. He held a congress there and proclaimed liberty—or what he called such—to all the cities of Greece, getting himself appointed by a formal vote to the position of commander-in-chief of a Hellenic league, just as Alexander the Great had done in 336 B.C. This supposed return of autonomy may perhaps have been celebrated by the issue of the very last pegasus-staters of the old kind with magistrates' initials and varying symbols of the sub-magistrate—the series with the name AY and the symbols, wreath, and figure of Demeter—if the lady with sceptre and cornucopiae is really Demeter [Pl. IV. 13, 14]. The falling-off in artistic merit is very marked in these coins. I can imagine no better occasion for an issue of the old civic coins than a congress proclaiming liberty, actually held at Corinth. The obvious way to assert autonomy would be to restrike the old national currency once more. But the series seems to have lasted but a few years, two or at most three. This would tally with the disaster to Demetrius in 300 B.C., when after his father's defeat and death at Ipsus, he lost his Peloponnesian dominions (or subject allies), along with most of his other possessions, to Cassander. It is true that they were after an interval recovered again, and intermittently held by Demetrius and afterwards by his son Antigonus Gonatas. But in his later years Demetrius abandoned his

pose of the friend of autonomy, and became rather an ostentatious despot, as Plutarch relates, while his son was an ordinary Hellenistic monarch, of the type of the "Epigoni" all over the world. Both were striking from 300 B.C. downward royal money of their own, with the title of king upon it, showing their own portraits, and not the types of the old coinage of Alexander the Great. There is no likelihood that they would have favoured civic issues in a place that had become a regular Macedonian fortress.

Where, therefore, ought we to place the very last issue of Corinthian pegasus-staters, those which do not bear a presiding magistrate's initials coupled with a series of varying symbols for sub-magistrates? These seven or eight varieties of staters bear a symbol indeed, but with it monograms, not initials, which vary for every symbol. Their art is vile—Pallas generally has a helmet too big for her [PL. IV. 15], a sort of saucepan which must slip over her eyes, like the extemporized head-pieces of Tweedledum and Tweedledee in Tenniel's illustration to *Alice through the Looking-Glass*. Occasionally she has, on the other hand, a helm so small and tapering that it could not possibly be brought down to cover her face, as by its build it is supposed to do [PL. IV. 20]. The Pegasus on the reverse is a pot-bellied horse with short legs ineffectively pawing the air [PL. IV. 16].

There can be no doubt that there must be a gap of at least forty or fifty years between this short series of seven or eight staters (which have their corresponding small change of drachms in equally bad style) and anything that went before them. And looking down the history of Corinth from 300 to 243 B.C.,

when it was continuously held by Macedonian garrisons belonging to one prince or another—for one short time it was held by an absolutely isolated Macedonian tyrant who had no other possessions—I am unable to find anything that looks like an occasion when the city could ever have pretended to autonomy, and started coin-issuing again.

But what of the years 243-223 B.C.? In the former Aratus, the general of the Achaean League, turned out the Macedonian garrison and added Corinth, a willing member, to the confederacy over which he presided. This was a real recovery of autonomy, very different from the specious liberty given by Polysperchon or Demetrius Poliorcetes. But, it will naturally be objected, Corinth now fell into the Achaean league, and adopted its coin-standards and types. Undoubtedly this was so, and there are early Achaean silver coins with the Corinthian Koppa (ϙ) as mint-mark. But it is equally certain that some of the greater cities which joined the league were for some time allowed to issue, concurrently with the pieces that pledged their allegiance to the confederacy, others of their own style, reproducing their old pre-Macedonian types. This has been proved to be the case for Argos, Megalopolis, and Sicyon, as Dr. Head allows in *Historia Numorum*, and Dr. Gardner explains at some length in his preface to the British Museum Catalogue of the Coins of Peloponnesus. Why should not the same privilege have been granted to Corinth, a city far more important than Sicyon or Megalopolis, or even than Argos? It seems to me most probable that the local civic patriotism of the Corinthians would have led them to ask for this concession from the league, which

(given the other examples) it would be most difficult to refuse, lest the *amour propre* of a new and most important member should be touched.

This hypothesis would account perfectly well for the issue between 243 and 223 B.C., in which year Corinth fell back for a time into the hand of the Macedonian king Antigonus Doson, of a broken sequence of pegasus-staters of very bad style, without the regular series of signatures which had prevailed on the old continuous issues of the period before 315 B.C. The experiment may have ceased when Corinth fell back for a time into Macedonian hands in 223 B.C. But it may have petered out even earlier, before the twenty years of liberty had expired. For there would be great difficulty in getting this resuscitated type of coin into circulation, when the royal Macedonian coinage had become the regular currency of the whole of continental Greece—as it obviously had by A.D. 250. It is very notable that the Achaean league itself never issued any large silver money at all, its only mintage being of small coins, which are either Corinthian drachms or decayed Aeginetan triobols. As the league dealt with very large sums of money, and must have required something much bigger than triobols for the pay of its armies, I am driven to suppose that all heavy sums were paid in the highly international Macedonian silver and gold. The Corinthian staters of the old sort must have passed into the crucible long before, and were not still circulating in a way which would have facilitated the acceptance of the new ones. But for that, the latter might perhaps have had a profitable career as halves of the Alexandrine tetradrachm, which their weight would have suited. For they are nearly up to the old

standard, weighing an average of 128 grains, which is hardly perceptibly less than that of the fourth-century staters. But their drachms, or thirds, with an average of 35-40 grains, would have been a little too heavy to serve as Macedonian hemidrachms.

It is worth noting, as a sign of how completely the Corinthian currency, once so popular in Sicily and Italy, had gone out of use by the third century in those parts, that the latest full-weight pegasus-staters struck at Syracuse are those of the earliest years of the tyrant Agathocles, i. e. of about 315-310 B.C. In the latter part of his reign he kept the types, Pallas and pegasus, but cut down the weight to 108 grains, to make it fit in as a convenient fraction of his new gold currency. Thus the later Syracusan Pegasi have passed quite off the Corinthian standard, and we may suppose that the older full-weight ones had gone to the melting-pot and disappeared from currency by 280 B.C. There would, therefore, be in 243 B.C. no western trade ready to absorb full-weight Corinthian staters, in the way that was customary in the fourth century, as so many Sicilian hoards show us. For nothing is more common than to find Corinthian mixed with Syracusan Pegasi in finds which belong to the half-century 350-300 B.C.

This explanation of the date of the last series of Corinthian staters, and of their failure to continue, is pure hypothesis, like so much else of my paper. But the Society, as I know of old, is not averse to testing a hypothesis, and I venture to submit one for discussion, quite prepared to withdraw it if the balance of evidence should prove to be against me.

C. OMAN.

III.

SULLA OR ENDYMION?



Coin of Buca. Sir Charles Oman's Collection.

A GOOD many scores of puzzles are provided by the Roman Republican coinage for those who wish to identify every god or goddess, every historical event or family legend, figured upon the denarii of the last two centuries before Christ. After much controversy an agreement has been reached on most of the vexed questions—even though it be only an agreement that a coin-type is inexplicable, owing to the failure of some famous story to come down to us—as in the case of the attack on a palisaded camp, shown on the aureus and denarius of Numonius Vaala.

There are, however, a few scenes depicted on the coins of the Republican age on which controversy still rages. And of these I think that the most interesting is that which occurs on a certain very rare denarius of Lucius Aemilius Buca, one of the last moneyers of Julius Caesar as dictator. It is so scarce that I have not had the opportunity of inspecting with minute care more than four specimens of it—two of which are reproduced in the illustration to this paper.

Lucius Buca was one of the college of four monetary magistrates who were in charge of the urban mint in the very year of Caesar's murder 44 B.C. His colleagues were M. Mettius, P. Sepullius Macer, and C. Cossutius Maridianus, and of all four of them there exists a regular series of denarii bearing the head of the dictator, with a few quinarii and sesterces which lack the portrait, and display more commonplace types. Caesar perished on the Ides of March, and the *quatuor viri* had still many months of office before them, when that curious period of insincere peace and compromise which followed the murder was going through the phases which ended in the open rupture in November between Marcus Antonius and the Senate—phases which we can follow with minute chronological accuracy in the letters and speeches of Cicero.

It seems clear that money continued to issue from the mint all through these months, and a distinction can be drawn between the coins struck before the murder (or immediately after it, before there was time to cut new dies) and those which belong to the end of the year. The former have the inscription **CAESAR DICT PERPETVO** or **CAESAR DICT QVARTVM** or merely **CAESAR IMP**, and usually the reverse type of Venus Victrix, Venus holding the statue of Victory, which was the most ordinary device on the dictator's money. Macer and Maridianus, however, issued money obviously after the Ides of March, with the veiled and deified portrait of Julius, and the inscription **CAESAR PARENS PATRIAE**; and the former, obviously a thoroughgoing partisan of Antony, even struck denarii with the portrait of Antony himself—quite unmistakable, and wearing the beard which he grew when

he went into *squalor*, unshaven mourning, for his patron's death. Mettius never changed his types, or else stopped coining rather than commit himself either to the Antonian or the Optimate policy. Aemilius Buca, like Mettius, seems for the greater part of the year either to have continued using his original dies, where Caesar is treated as a living dictator, or else to have desisted from work. But in the end of the year—the great rarity of the coins would seem to indicate that it was in the very last months—he issued the denarius which we are now discussing.

The types are :

Obv. Head of Venus, diademed, with necklace and earrings to right, behind **L • BVCA**

Rev. A sleeping man, his head resting on a rock l., below him a rug or skin spread on the ground : his lower limbs are shrouded in a sheet or coverlet. To him descends from the r. a draped goddess wearing a crescent on her head, and restraining with her left hand a floating veil : she appears to hold a lighted torch in her right hand. Between the man and the goddess is a figure of Victory, fully draped, with expanded wings, holding in her lifted right hand a long palm-branch, and in her depressed left hand an uncertain object indicated by two or three circular dots only.

What does this scene represent ? Eckhel, the father of scientific coin-study, saw in it the curious story of Sulla's dream, as recorded by Plutarch. When the future dictator was marching against Rome, in 82 B.C., to expel the Marian party, he slept at Nola, and "saw in a vision the goddess whom the Romans have adopted from the Cappadocian, and whom some call Selene, others Pallas, others Enyo, standing by him and putting

thunder into his hand, and having called on his enemies by name, she bade him strike, and they were consumed to ashes." Many commentators have followed this explanation of Buca's type, down to Mr. Grueber in his magnificent British Museum catalogue of the coins of the Republic. But there is another school, of which notable exponents are Sabatier, Sestini, and the lamented M. Babelon in his *Médailles de la République Romaine*, who see in the picture a version of the legend of Endymion and Selene, and call the hovering figure in the background not Victory, but Cupid, "l'Amour voltigeant".

It is on this difference of opinion that I wish to give my decision. Of course any one who knows his classics, and is confronted with a representation of a sleeping man, and a moon-goddess descending from heaven to visit him, thinks at once of Endymion and Selene. And such a type would not be inappropriate to a Caesarian moneyer, for Caesar had his connexions with Diana, who in common conception is identified with Selene. Diana-heads appear on the coins of some of his moneyers. But what of the winged figure in the background: it is certainly not Cupid, as Babelon styles it, the dress being long and decisively female. I can only suppose that Babelon (as his illustration suggests) had a bad specimen of the coin before him—his artist draws a figure in a short kilt, not in long robes. The palm-branch makes it certain that the divinity is Victory. And obviously if Selene, in her nightly descent to visit Endymion, must have an attendant, it would not naturally be a palm-bearing Victory. What could such an adjunct signify? It is quite inappropriate: to hint at *sexual* victory would

require the form of Cupid—and here we have not that small and irresponsible god, but a full-sized and well-draped female.

I hold therefore that the Victory-figure rules out the possibility of this type representing Endymion and Selene.

But there are also objections, though I think less valid ones, to the identification of the type with Eckhel's choice—Sulla's dream. The most important of them is that Sulla was the patron of the Optimate theory of the State, the constitution which Caesar had just crushed, carrying out to their logical end earlier encroachments on it by Pompey and Crassus. Could a moneyer appointed by Caesar in 44 B.C. have struck a coin glorifying Sulla and all that Sulla stood for? It looks at first sight unlikely.

The second objection is that the scene does not exactly reproduce the dream as related by Plutarch. The Cappadocian goddess Selene—or whatever we choose to call her—is not said in the written story to have presented Victory to Sulla, but to have given him a thunderbolt, with which he crushed and consumed his enemies the democrats. Selene is carrying something in this scene of Buca's, but it looks more like a torch than a thunderbolt. Though she implicitly promised him victory (with a small v) she did not introduce Victory (with a large V) to him.

I am constrained to attempt an explanation of both of these difficulties. First, public opinion in Rome during the last months of 44 B.C. was going round from Caesarianism, as represented by the impudent and irresponsible Antony, to the old optimate view of the constitution. When Cicero rallied the partisans of

republicanism for their last stand, many old Caesarians, like the consuls designate Hirtius and Pansa, went over to the constitutional side. I imagine that Aemilius Buca was one of them—he had a close connexion with Sulla, being the son of Aemilius Scaurus, the old dictator's stepson. As a piece of optimate propagandism he issues in the very last months of 44 B.C., when the Antonian cause was failing, a coin with a memorial of his own step-grandfather, the great champion of the old constitution against democracy. This was "taking sides" with a vengeance—but Sepullius Macer had already taken the other side by issuing his unprecedented denarii with a bearded head of Antony, a mere faction-leader. So I regard the introduction of Sulla on a coin of the late months of 44 B.C. as quite conceivable.

There remains the second, but to my thinking not so very weighty objection, that we might have expected Selene to be handing a thunderbolt to Sulla, rather than waving a torch and showing him a victory. To this the reply would seem to me to be that we are not sure that the story got to the die-engravers in the exact form in which it reached Plutarch—it might really run "the goddess promised him victory", rather than "she gave him a thunderbolt with which he dreamed that he annihilated the democrats". If she is carrying a torch this might serve—it is her proper attribute, as the many **LVNA LVCIFERA** coins of the Empire show. Moreover, I am not quite sure that the object *is* a torch; minute observation does not altogether preclude the view that it may be an ill-drawn *fulmen*. And if the artist was wishing to emphasize the fact that Sulla was asleep, it would be

less convincing to represent him sitting up or standing to receive the goddess's gift.

Some have thought that the object which Victory is carrying in her left hand might be the thunderbolt which we should like to find. I cannot see it so; there are merely a few dots, which if they indicate anything in their minute scale, might be a glimpse of Victory's habitual laurel wreath. But it is really impossible to distinguish what they stand for—and the problem is of little importance.

C. OMAN.



Coins of Buca. British Museum.

IV.

THE CURRENCY OF EGYPT IN THE FIFTH CENTURY.

Two hoards of coins recently found in Egypt, with a third which has been for some years in the British Museum, throw light on the currency and economic condition of the country in the fifth century A.D., and by the permission of the finders and the Museum authorities they will be described together. In all three the majority of the coins were in poor condition, many being so worn as to be absolutely unidentifiable, while of those on which traces of the types remained it was often impossible to decipher the legends. Under these circumstances a fully detailed classification could not be obtained, and it is hardly worth while to give fragmentary particulars of individual pieces: the important facts are therefore set out in a summary table arranged in an approximately chronological order. For convenience of discussion the contents of the finds are grouped under four heads: (i) Pre-Constantinian (including one or two stray coins of Constantine I's reign before his last issue); (ii) Constantine I to Theodosius II; (iii) Theodosius II to Zeno (the break between (ii) and (iii) being at the commencement of the monogram-issue of Theodosius II, which marks a new departure in style); (iv) Copies, the last head being further subdivided into seven classes. The method of

description is varied in the different groups: the few coins in (i) can be treated individually; for (ii) the most suitable classification is by reverse-types, as there were usually two or more emperors striking the same type simultaneously; in (iii), which is only represented in one of the hoards, arrangement by reigns is more convenient; while merely a brief description is given of the specimens included in some classes of (iv), as the only alternative would be to catalogue every coin in full, the types being of all degrees of barbarism in execution with numerous though seemingly meaningless variations, and this seemed scarcely worth the trouble; but a fuller treatment has been accorded to one class, which is well represented by pieces in good condition, and possesses some novel features.

One of these hoards was found by Mr. Guy Brunton during his excavations at Qau-el-Kebir, south of Asyut, in 1923-4: it was in a small pot, which appears to have been buried about 480, as there are only a few coins of Zeno and Basiliscus, and nothing later than Zeno; the specimens of the issues of Leo I are numerous and for the most part in good condition.

The second hoard was obtained in the following winter by Messrs. G. E. Wainwright and J. S. Starkey in the course of their work for the University of Michigan at Kom Washim (Karanis) in the Fayum. This is about half a century earlier in date, as the monogram-coinage of Theodosius II is not represented in it, and there is only one specimen, quite fresh, of his cross-type. A copy of a coin of John, the successor of Honorius in Italy, makes it certain that the hoard is later than 423, but this piece is practically unworn, and there is no reason for dating the hoard after 430.

The hoard in the British Museum is from Hawara, and is almost certainly that described as No. 2 by Petrie in his analysis of the hoards found with late Roman burials in the cemetery of Hawara (*Hawara, Biahmu, and Arsinoe*, Lond., 1889). The coins have been cleaned, which has made it possible to identify more than Petrie catalogued, but the general results agree very closely. This hoard was probably deposited a few years earlier than the last-mentioned one, as there is nothing in it which can be dated after the death of Honorius: the only types of Theodosius II which are represented in it are those which he shared with Honorius.

There is a close parallel to this hoard in that described in *J.R.S.*, x. 173, which is from the same place, but possibly about a decade older, as there are hardly any specimens in it of the later issues of Honorius after the death of Arcadius. Comparison with the other hoards has enabled me to revise my classification of some of the coins in this hoard, and I have accordingly added the amended figures obtained to the table given below.

The only hoards of about the same date as the Qau-el-Kebir hoard which I know to have been described are those numbered 4 and 5 in Petrie's analysis of the Hawara finds already mentioned: these both end with coins of Zeno. These will be cited as H 4 and H 5; the three hoards which are the main subject of this paper will be referred to as QK, KW, and H 2 respectively, and the hoard described in *J.R.S.* x as H 6.

I. PRE-CONSTANTINIAN.

The presence of a few non-Roman coins, or Roman coins of earlier currencies, is characteristic of Egyptian fifth-century hoards. External issues naturally drifted into Egypt at all periods, and occur casually on Graeco-Roman sites (cf. instances in "The Coins from Oxyrhynchos", *J. E. A.*, viii. 160), but they are not found mixed with the native currency in hoards before the time of Diocletian: the only approach to such a contamination I know is in late third-century hoards, in two or three of which I have noted among the debased Alexandrian tetradrachms stray specimens of the little Ptolemaic bronze decadrachms of the first century B.C., which are about the same size and of practically the same metal content as the tetradrachms. After the introduction into Egypt of the general monetary system of the empire, non-Roman pieces occasionally occur in hoards of Constantinian bronze: for instance, in a large hoard of about A.D. 345 there was a single coin of Tabae of the first century B.C. In the fifth century, however, any hoard is almost sure to contain a few examples of "erratics": thus in H 4 there were two autonomous Greek coins, in H 5 one Herodian, and in H 6 four Syrian or Judaeian, as well as third-century Roman pieces which at the time of their issue were not normally current in Egypt. It is not surprising that Judaeian coins of the last century B.C. or first A.D. should appear in Egypt: they would tend to drift in overland, and they turn up occasionally in sporadic finds, especially in the Delta; but the coins of Corinth and Pyrrha in H 4, that of Neandria in QK, and that of Kragos in KW, should have been out of circulation for centuries before they were buried,

and never had any legal currency in the Nile valley. The condition of the two last-named, especially that of the Neandria coin, which shows scarcely any sign of wear, suggests that they had not been in use during the whole period of their existence, but had been recovered from some hiding-place and added to the rest of the items in the hoards as pieces of metal which had as much or as little meaning to their holders as any of the others with which they were associated. This point will be discussed more fully at a later stage.

II. CONSTANTINE I—THEODOSIUS II.

The fourth- and early fifth-century coins present no exceptional features: they are the ordinary currency of the time, which continued in circulation, getting more and more worn and broken, till, as will be seen from the list, many even of those which are partially identifiable had lost much of their legends, while probably most of the numerous illegible specimens belong to this period. It is noticeable that a few of the earlier coins of this group in each of the hoards, particularly most of those of the sons of Constantine in H 2, are in quite good condition, and may be assumed to have been in a *cache* for a considerable period and then to have been brought back into circulation, as was conjectured to have happened in the case of the coin of Neandria mentioned above. There are among these a higher proportion of coins from western mints than among the worn coins of the latter part of the fourth century; a comparatively large western element is rather characteristic of Constantinian hoards from Egypt, and this suggests

that the direct trade between Alexandria and the western parts of the Mediterranean was specially flourishing under Constantine I and his sons.

III. THEODOSIUS II—ZENO.

The coins of the last half-century represented in QK show, as a rule, little sign of wear; those specimens which have to be classed as illegible are so on account generally of the carelessness with which they were struck, not because any legends or types which they once bore have been defaced by use. So bad, indeed, is the workmanship that it is difficult to draw any definite line between coins presumably produced by the official mints and barbarous imitations. I have assigned to the former class the specimens in which the engraver of the dies seems to have had any clear intention of reproducing a definite type or legend, though the execution of these is often clumsy.

IV. COPIES.

Under the general head of copies I have grouped a large number of pieces of varying degrees of merit and probably of divergent origins, which are subdivided into seven classes. In the first five of these classes the inscriptions and types, though they usually have a recognizable relation to the imperial issues, are more or less blundered; the workmanship is sometimes fairly good, but engravers who were capable of executing a respectable head or figure usually went wrong in the legends; and a further test for differentiating unofficial from official issues is in the die-position, as the imperial mints seem throughout to have preserved the adjustment of dies as either ↑↑ or ↑↓, while many

of the copies are struck from dies placed at an angle. It is not always easy in dealing with worn specimens to determine allocation among the first four classes; but, so far as these classes are concerned, I can only regard the arrangement as provisional at present, and the fourth class in particular is a sort of miscellany: the investigation of other hoards may throw more light on the distinction between them. The sixth and seventh classes are marked off from the rest by being cast, not struck; but, while the work of the sixth class is exceptionally bad, that of the seventh is quite good.

(A) The first class consists of pieces struck on thick flans, apparently clipped out from sheets of metal, and often of an oval shape, with rather sharp edges; the flans are almost always much too small for the dies, and the impressions are usually weak and flat; the general appearance of the pieces suggests that the blanks were imperfectly heated before the striking. The workmanship is coarse and clumsy; there is normally an attempt at a legend, more or less blundered, on each side, though frequently the greater part of it has missed the flan. The types are all derived from imperial coins of the period from Valentinian I to Honorius, copies of Honorius being the commonest; many are of reverse types not used in the eastern mints, such as *Victoria Augg* with *Victory l.*, and *Urbs Roma Felix* with the emperor holding *Victory*; and where there is an exergual mint-legend it is usually a version of that of Rome. The copy of the coin of John already mentioned is noteworthy in this connexion. The specimens of this class in QK were all rather worn, while many of those in the other three hoards were quite fresh, and, as it does not include any

imitations of the latest types of Theodosius II, it seems probable that the production of these pieces ceased somewhere about 430.

(B) In the second class are some series which are only separable from the products of the Alexandrian mint by the pooriness of their execution. The flans are round and dumpy and generally similar to those of the official coins of that mint; the types are fairly closely followed, and there are recognizable attempts at legends. These pieces are generally of the later types of Theodosius and his sons, such as *Salus Republicae* and the cross; they show on an average in the different hoards about the same degree of wear as the official coins of the same types, with which they seem to have been nearly contemporary, and they are normally of the types used in the eastern mints.

(C) The third class in the size and shape of the flans is generally very similar to the second, but is distinctly more barbarous in execution: the legends are often reduced to mere dots, and the figures are so broken up as to be almost unidentifiable. Occasionally the position of the types is reversed—for instance, the head on the obverse is to l. instead of to r., or Victory on the reverse is moving to r. instead of to l. The range of reverse-types copied is rather wider than in Class B.

(D) The fourth class is practically a collection of all the struck copies of coins down to the time of Honorius which cannot be placed in any of the three preceding classes: they probably come from several different quarters, and are for the most part much worn. In this class have been placed all the pieces on thin flans, as thick flans are a common characteristic of Classes A, B, and C.

(E) The copies of the latest type of Theodosius II and of the issues of his successors, which occur in QK only of the four hoards, are of somewhat similar nature to Class B, in that they resemble the official issues in module, but are more barbarous in their style. As in the case of Class B, the extent of wear of the specimens compared with that of the official issues of the same types in the hoard suggests that the two sets were contemporary.

(F) The sixth class, which is represented in the three Fayum hoards but not in QK, shows the lowest depth of degradation reached among these issues. The pieces are very roughly cast, with ragged edges, and of irregular sizes: the designs are scratchy and confused, and the lettering meaningless: for instance, in the Votis types, such legends as **TOV X** or **VOT IIIIT** are common. Their general appearance suggests that they were cast from stone moulds cut by unskilled workmen. The range of types is limited to the later ones of Theodosius and his sons—Victory (with or without captive), Votis, cross in wreath, and two emperors standing. Most of the specimens are little worn.

(G) The last class comprises the most interesting and presentable pieces: they are all cast, probably from clay moulds, which were fairly well executed, and are for the most part of neat round shape, and very thin. The most noteworthy points about them are that the types are copied on a reduced scale from the originals, and that these originals range over a very long period, including examples of most of the kinds of bronze coinage found in the hoards: thus there are among them copies of an Alexandrian coin of Trajan,

of an imperial bronze of Probus, many of the issues of the house of Constantine, as well as of the later coinage down to the time of Leo, and even of the barbarian imitations. This class is particularly plentiful in QK, and many of the specimens there are quite fresh: there are a few, nearly all worn, in H 2 and KW. It is curious that this very distinct class does not seem to have been noticed before: there are, however, in Dattari's catalogue (*Numi Augg. Alexandrini*) two pieces, described under the heading of "Monete Ibride", which seem to belong to it. These are No. 6403, which he states to have a bust of Constans I or Constantius II on the obverse, and on the reverse a ram standing r. with the legend $\Upsilon\Upsilon\text{H}\Lambda\text{I}$ and in field L IA , and No. 6404, with traces of a similar bust and an antelope standing r. with KOTT and L IA . Only the reverses are illustrated, but so far as can be judged from the plate the fabric is similar to that of the pieces under discussion, and, as they are said to have come from a hoard of about 15,000 "quinari" found at Medum, in which they were associated with imperial coins of Constans I to Leo I, with coins of the Goths and Vandals, and with one Alexandrian of Hadrian, it is evident that the composition of the hoard was closely parallel to that of QK. It is probable that the bust taken by Dattari to be of Constans I or Constantius II was in fact meant for one of Hadrian—the hoard having been found at Medum, these pieces would probably be worn like the coins of this class in the Fayum hoards—and the types were copied from the small nome-coins of the eleventh year of Hadrian: in this case they may be paralleled by the copy of an Alexandrian coin of Trajan in QK. It is possible also

that some coins of this class are included in the "foule de très petites médailles" copied from coins of the Constantinian period noted by Cohen as probably struck about the time of Anastasius (ed. 2, vol. vii, 327, 331, 379); but this is not certain.

The source of origin of these copies is a question which requires investigation. So far as the struck pieces are concerned, somewhat similar imitations of current coinage dating from about this period have been found in many parts of the Roman empire, and a long series in the British Museum has been classified by Wroth as Vandalic, either produced by the Vandal kings in Africa or by the barbarian tribes in their vicinity (*Coins of the Vandals, Ostrogoths, and Lombards*, p. xviii). But, while the African provenance of many of the British Museum coins is fairly certain, their ascription to the Vandals does not accord with the fact that the struck classes occur in hoards which were buried in Egypt before the Vandals came into Africa: and it is improbable that pieces issued either by the Vandals or by the Moorish tribes would form so large a proportion of Egyptian hoards as do these copies. Of course a few Vandal coins might drift into Egypt, especially in the reign of Leo, when the Egyptian garrison was mobilized for an expedition against Carthage and captured Tripoli; but I am not aware of any record of coins of the recognized Vandalic types having been found in Egypt.

In particular, the coins attributed by Wroth to Masuna (Nos. 179, 180, 181, p. 39) seem certainly to be Egyptian. These three specimens were all given by Mr. Haworth in 1888, and presumably came from H 4

or H 5; and there are three others of similar appearance in QK, two with the cross reverse like the British Museum coins, the third with Victory. All six are in good condition, and do not look as if they had travelled from the far west of Mauretania, where Masuna had his kingdom; and the date of Masuna, who was ruling in 508 and apparently still in 534, is too late for coins in QK, which is probably dated about 480, and apparently also for those in H 4 and H 5, neither of which contained anything later than Zeno.¹ The legend **DMNASNA** is in fact merely gibberish; as Wroth elsewhere suggests (p. xxi), "the inscribing of a few not very intelligible letters on the coin . . . was the summit of the engraver's ambition."

While, however, I am unable to agree with Wroth's ascription of these coins as a whole to the Vandals and their neighbours, so far as Class A is concerned the evidence available seems in favour of an origin in what was later the Vandal kingdom. As already noted, the favourite types in this class are western, not eastern, and the blundered legends of many show that they were copied from the issues of the mint of Rome, which would suggest Africa rather than Egypt. The thick and rather irregular flans are characteristic of Carthage, and the fabric is very like that of Nos. 15 and 16 on p. 19 of the Brit. Mus. Cat., the legend on

¹ There is one coin from the Haworth donation (No. 149) described by Wroth as possibly of Justinian; but it seems to me to be a Victory type of Class A: the "monogram" is a degraded Victory, and the legend the remains of **VICTORIAAVGG**. No. 152 of Wroth's catalogue is a much worn two Victories type, possibly of Valentinian II: the reverse of No. 155 should be read **Z**, not **N**, and is a copy of Zeno; No. 157 is a degraded cross in wreath type. Petrie's summary of H 4 and H 5 shows both hoards as ending with Zeno.

the reverse of which clearly shows their Carthaginian origin. The coins of this class in the British Museum are Nos. 1-14, 44-47, 52, 56-59, 74, 75, 79, and 182-184, and nearly all of these were purchased from Gadban and probably came from Africa. If this class was issued at Carthage, it is possible that the issue was made by the Roman authorities there, although there was no regular mint of the city in this period: the fact that the pieces are struck, though very unskilfully, is against their being the work of ordinary counterfeiters, who generally preferred to cast their forgeries; they look more like the productions of a provincial governor, who had not the machinery of a proper mint available, and issued a sort of "money of necessity", which was made from sheets of metal roughly clipped to the size required, imperfectly heated, and clumsily struck with improvised dies. It has already been seen that the manufacture of this class probably ceased about 430, while specimens of it occur in a hoard buried about 410, and the condition of the province of Africa from 400 to 430 was such as might lead to the issue of such money of necessity, while the Vandal conquest would account for its cessation about 430. If the coinage were a quasi-official one, it would be natural that specimens of it would pass into Egypt in the course of trade, just as coins from the provincial mints of Asia did, and thus form a regular constituent in the hoards that were secreted; whereas if it had been produced by the Vandals or other independent powers, only occasional examples would be likely to occur. In view of these considerations Class A may be regarded as having been issued at Carthage, approximately during the first quarter of the fifth century.

Class B bears more resemblance to the work of a properly organized mint, and it is possible that it actually represents the output of the imperial mint of Alexandria. The art of that mint was noticeably inferior to that of any other of the eastern mints in the Theodosian period: in fact, as early as the reign of Julian it was disgracefully bad (*J. R. S.*, x. 172): and the pieces of this class are not much worse than coins of about 400 which bear the mint-mark of Alexandria. It is also observable that there are hardly any coins of issues later than the death of Arcadius which can be assigned to this mint by the presence of the name **ALE**; but several of the copies of this class have what may be a blundered attempt at this name. It would seem probable that the "art" of the Alexandrian mint collapsed utterly at the beginning of the fifth century, and its designers were unable to engrave an intelligible legend, with the result that these debased pieces, which are all of types such as were normally used in the eastern mints, represent the product of Alexandria.

If this be granted, a further decay may be postulated and Class C also ascribed to Alexandria. It is difficult to believe that any self-respecting government could have allowed the miserable specimens of this class to issue as official: they might have said in defence of Class B that the blundered legends did not matter, as the Egyptians could not understand them even if they were correctly given, and the art was good enough for Egypt; but in Class C there is not even an attempt at a legend, and often no attempt at a recognizable figure. However, the Alexandrian government of the fifth century could hardly be described as self-respecting.

Class D, as noted above, includes several distinct fabrics, and there is not much material for determining their origin. The coins of "Masuna" already discussed are placed in this class: their art is rather that of Class B, but the flans are smaller and less regular in shape. As the specimens found have all been in good condition, it is probable that they were struck in Egypt. Several other pieces of poor style and with blundered legends as in Class B, but on thin flans, rather suggest the work of the mint of Nicomedia, the output of which shows considerable artistic degeneration at the end of the fourth and beginning of the fifth centuries, and is singularly inferior to that of its neighbours at Cyzicus and Constantinople: the thin flans are characteristic of this group of mints, in contrast to the rather dumpy ones used at Alexandria and Antioch; but this attribution requires further evidence. There are also a few small copies of third-century imperial bronze, which may have come from the west: the heads seem to be intended for those of Tetricus or Victorinus, and on one coin the remains of the name of Tetricus appear. These are all much worn.

The similarity of Class E to Class B in their relation to contemporary issues suggests that if B represents the products of the Alexandrian mint from 400 to 430 or thereabouts, E may do the same in the period from 430 to 480. In this period, as in the earlier one, coins with the mint-name of Alexandria are rare: there is only one in QK, while the issues of Constantinople and Nicomedia are fairly numerous: and it may well be the case that these barbarous pieces are the official attempts at coinage for Egypt.

Class F bears distinct marks of local origin. There are many specimens in good condition in H 2 and KW, and there were also some in H 6, but none occur in the larger hoard QK, so that these pieces either did not travel so far up the valley as Qau-el-Kebir or had passed out of use between 430, the date of KW, and 480, that of QK. Both these suggestions may well be correct; the little bits of metal are so unattractive in appearance that no one would want to keep them or accept them except near the place of their origin, and they are so badly cast that if they travelled far they would crumble to bits: they break up even when carefully handled, and if they continued in use would certainly not last for anything like fifty years. The fact that they are cast tends to show that they were not official issues, and the roughness of the work may justify their attribution to some provincial money-changer or person of like standing. They could hardly be called forgeries, as they are not even colourable imitations of current coin, but might be regarded as a kind of tradesmen's tokens, on which a device was placed because it was customary to have a device on a coin, but no trouble was spent in making the device intelligible: in fact, as will be seen later, they were practically counters, and as such might be made by any one who needed them. Since they are only recorded from Fayum hoards, it is most probable that they were produced in the Fayum. There are in the British Museum several pieces which resemble this class in the roughness of their style, with degraded and dislocated types and no legends, or only fragmentary ones, but they have a better surface than the Fayum specimens; they were all acquired from

Mr. Doubleday, and, as noted by Wroth, evidently belong to one find. These came from Africa, and are a good deal later than Class F, since they include copies of coins of Justinian and Vandal issues down to the end of the Vandal kingdom, but it may well be that they were produced under similar conditions to and to serve the same purposes as Class F.

Class G is of very different character, and must have required a good deal of care in manufacture. Though many of the pieces are cast with the types of current coins, they are not direct copies, like the work of the forgers of the Constantinian period. The clay moulds of these forgers, which have been found in quantities on several sites in Egypt (cf. *Num. Chron.*, 1905, 342), were usually made by the impression of a coin on a piece of clay, which was then baked: occasionally a *cire perdue* process may have been adopted, but the original was always followed as exactly as possible. But the miniature copies of this class are in most cases of only about half the dimensions of the originals, and this presumably would involve the preparation of a special model, in which the types were reproduced on a reduced scale, and from which the moulds would be made. These models must have been executed with considerable skill, as the copies of the types are in most cases very faithful and accurate; from the artistic point of view they are far superior to anything that was issued from the mint of Alexandria, or indeed any of the eastern mints, in the fifth century. The preparation of the moulds was more skilful than the actual casting, in which there were frequently technical faults: the moulds were not adjusted, and often some distance out of plane, so that the proportion of really

good casts is small, and many of the pieces are partly illegible, not through wear, but through imperfect casting. The choice of types copied, as will be seen from the list, also differs from that in the other classes, which were in practically all cases imitations of contemporary official issues: in this class the range of models was virtually coextensive with all the kinds of coins found in Egyptian hoards of this period, including some of which the originals were nearly four hundred years old; and it would appear that the earliest types were not necessarily the first to be copied, as in QK there are groups of examples of the Pop. Romanus type, of the **VOT V** of Constantine II, and of the Sarapis and Nilus type of Julian, in very fresh condition, while copies of later types occur half a century earlier in H 2 and KW. Even the barbarous pieces of Classes A to E were reproduced in a style slightly more delicate than that of the originals. The manufacture of these pieces must have gone on for a considerable period: their occurrence in H 2 shows that it must have begun before about 420, while many of the specimens in QK are so little worn that they cannot have been issued long before the deposit of the hoard about 480, and this hoard further includes copies of the coins of Leo. As regards the place of manufacture, since the examples in H 2 and KW are comparatively few and worn, while those in QK are numerous and often fresh, also including several groups from the same moulds, which would naturally scatter as they travelled farther from their home, it can safely be concluded that this class originated nearer to Qau-el-Kebir than to the Fayum, probably somewhere in the upper part of Middle Egypt. The care bestowed on the prepara-

tion of the moulds and the exceptional nature of the fabric seem to point to their being made under the direction of some person of more responsibility than the ordinary forger, who would have adopted a simpler method and aimed at producing a closer copy of the imperial issues; and the explanation which suggests itself is that they were put out for circulation under the auspices of some of the great landlords who dominated Middle Egypt in the fifth and sixth centuries. The best known of these feudal houses is that of the Apions at Oxyrhynchos, concerning whom there is much evidence in the papyri found there; but occasional references to the conditions of other districts show that the position held by the magnates of Oxyrhynchos was not unique. These lords not only controlled their own estates, to the exclusion of the Government officials, for such purposes as the collection of the imperial taxes, but also provided the effective administration of justice and police: for practical purposes they were semi-independent tributary chieftains, with whose authority in their home districts the central government was not anxious to interfere. As they kept their own private prisons and bands of armed retainers who were virtually soldiers, there would be nothing surprising in their issuing a local bronze coinage, and on their own estates at least that coinage would possess quite as good a guarantee in the eyes of the natives as that of the imperial mint.

A review of the contents of these and contemporary hoards raises the question what value was attached to the individual coins. There are in them, mixed

together, pieces of different sizes, many of them so worn as to be absolutely illegible; many others, on which some traces of the types remain, have been so chipped and broken that they have lost a considerable part of their original value; while amongst those that can be identified are coins several centuries old, issued by states independent of Rome, which could not be regarded as legal currency of the empire, as well as a substantial number of what seem to be local tokens. The conclusion is obvious, as already suggested in *J. R. S.*, x. 183, that any piece of metal would serve for the purposes of a unit—virtually of a counter—in these hoards, and that no guarantee of value by the government was attached to any of the pieces. So close a parallel to this was noted a few years ago in one of the Saharan oases by W. J. Harding King, that his account should be quoted in full. He says:

“In addition to the French coinage, El Wad possesses a currency known as *flous*, which is peculiar to itself and the surrounding district. This consists of all the small coins formerly current in the country. *Flous* must be one of the most nondescript coinages in existence. Small copper coins from Tunisia, little silver ones minted by the old sultans of Wargla and Tougourt, and even Roman coins are found among them. The majority of the pieces are so battered and worn as to be quite defaced, but now and then a good specimen can be found, and as seven of them of whatever description go to a single French sou, any one interested in numismatics would be able to make a collection of them at a very slight cost.”²

This description of the local currency of El Wad at the beginning of the present century might be applied with very little modification to the fifth-century hoards from Egypt: there is the same mixture of coins origin-

² *A Search for the Masked Twareks*, London, 1903, p. 213.

ally of different values issued by different authorities at different periods, largely illegible; and, as the El Wad pieces were used simply as counters in a numerical relation to an authoritative currency, the parallel supports the supposition that the Egyptian pieces were similarly regarded. In fact, the bronze coinage in Egypt was effectively demonetized, and reduced to the same level as, for instance, cowries in some uncivilized countries: the refinement of an intrinsically valueless paper currency had not occurred to the Egyptians.

This supposition would suit the formulae used for statements of account in Egyptian documents of this period. The only real standard was the gold solidus, and values in gold begin to appear in the fourth century, while by the sixth the normal expression of a sum was in gold solidi and fractions, going down to $\frac{1}{24}$ th of a carat—i.e. $\frac{1}{72}$ th of a solidus. But throughout the fifth century, and more rarely in the sixth, the traditional unit of the denarius still lingered in the memories of the people, though the denarius had depreciated so far that the unit had become not the denarius but ten thousand denarii: prices were stated in myriads of denarii, and even the myriad was of almost negligible value: at the end of the fourth century 2,020 myriads went to the solidus (P. Oxy. 1223), and in the middle of the sixth about 5,200 (P. Oxy. 1911). It would therefore have been almost impracticable to strike a coin with anything like the correct value of a myriad of denarii, and the constant depreciation would have made it futile to attempt to relate any coin based on a multiple of the myriad with current gold values: so the simplest plan for dealing with the

problem of small change was to use anything that could easily be counted over for purposes of reckoning without requiring it to possess any definite value in itself.

[NOTE. It does not seem that the shop-numbers of the various mints are of sufficient importance to warrant their entry in detail in the catalogue, as their inclusion would mean a considerable expansion of the table, while the number of cases in which they can be determined with certainty is not very large, comparatively to the total of the hoards.

The order in which the issues of the second half of the fifth century are arranged is very tentative, especially in regard to those of the Western mints.

A few coins of the Theodosian house on which the mint letter appears to be **H** have been classed under the head of Nicomedia. I am not at all sure that the mint of Heraclea was operating in this period: most of these coins in point of style are indistinguishable from those of Nicomedia, and the engravers of the Nicomedia mint were so careless that what looks like **H** may have been meant by them for **N**; in fact, in some examples **N** and **H** take practically the same form in the obverse inscriptions of Theodosius and Honorius.

My records of H 6 do not furnish material for dividing the copies between the different classes, which had not formed themselves in my mind when I examined this hoard. My recollection is that they were mainly of classes A and F, but that B, C, and D were also represented: I do not think there were any of G. In the table they are lumped under types without distinction of classes.]

I. PRE-CONSTANTINIAN.

HAWARA 6.

See *J. R. S.* x. 173.

HAWARA 2.

Alexandria. Trajanus. 13 mm. Dattari 1228.*Imperial.* Claudius II. 14 mm. C 46.

" " "

KOM WASHIM.

Kragos. First cent. B.C. 10 mm. B.M.C. 17.*Lycian.* Similar to last, but legend effaced.*Alexandria.* Trajanus. 12 mm., as Dattari 1100, but
rev. in field LIS.

Hadrianus. 12 mm. Dattari 1908.

QAU-EL-KEBIE.

Neandria. Fourth cent. B.C. 11 mm. B.M.C. 6.*Side.* Second cent. B.C. 12 mm. B.M.C. 71.*Seleucid.* Possibly Alexander II. 12 mm.*Ptolemaic.* Ptolemy XIII. 12 mm. Svoronos 1845.*Judaea.* Alex. Jannaeus. 13 mm., as B.M.C.,
p. 210.*Alexandria.* Hadrianus. 13 mm., as Dattari 1909, but
rev. in field 9 J.*Imperial.* Claudius II. 14 mm. C. 46.

II. CONSTANTINUS I—THEODOSIUS II.

GLORIA EXERCITVS	Two	H6	H2	KW	QK
soldiers with two standards.					
<i>Antioch</i>					
Constantius Caes.	. . .		1		
<i>Cyzicus</i>					
Constantius Caes.	. . .		1		
<i>Nicomedia</i>					
Constantinus I	. . .		1		
<i>Constantinople</i>					
Constantinus I	. . .		1		
			4		

	H 6	H 2	KW	QK
GLORIA EXERCITVS Two				
soldiers with one standard.				
<i>Cyzicus</i>				
Constantinus Caes.		1		
Constans Caes.		2		
<i>Heraclea</i>				
Constantinus I		1		
<i>Rome</i>				
Constans Caes.				1
<i>Mints illegible</i>				
Constans Caes.		1		
Constantius Caes.				2
		<hr/>		
		5		3
		<hr/>		

PAX PVBLICA Pax standing.*Constantinople*

Helena		2		
		<hr/>		
		2		
		<hr/>		

Wolf and twins.

Cyzicus

Urbs Roma		1		
---------------------	--	---	--	--

Nicomedia

Urbs Roma		1		
		<hr/>		
		2		
		<hr/>		

Victory on prow.

Cyzicus

Constantinopolis			1	
----------------------------	--	--	---	--

Nicomedia

Constantinopolis		1		
		<hr/>		
		1	1	
		<hr/>		

GLORIA EXERCITVS		Two	H 6	H 2	KW	QK
soldiers with one standard.						
<i>Alexandria</i>						
Constans	1
<i>Antioch</i>						
Constantinus II	1
Constantius II	1
<i>Cyzicus</i>						
Constantinus II	1
Constantius II	1
(?)	1
<i>Nicomedia</i>						
Constantius II	1
(?)	1
<i>Constantinople</i>						
Constans	1
Constantius II	1
<i>Heraclea</i>						
Constans	1
<i>Rome</i>						
Constans	1
(?)	1
<i>Arles</i>						
Constantinus II	1
<i>Mints illegible</i>						
Constans	1 3
Constantius II	3
(?)	1 1 2 3
			7	15	2	7
Victory on prow.						
<i>Rome</i>						
Constantinopolis	1
<i>Mints illegible</i>						
Constantinopolis	2
			3			

	H6	H2	KW	QK
Emperor in quadriga.				
<i>Alexandria</i>				
Divus Constantinus . . .	1	1		
<i>Nicomedia</i>				
Divus Constantinus . . .	1			1
<i>Constantinople</i>				
Divus Constantinus . . .		3		
<i>Mints illegible</i>				
Divus Constantinus . . .	1			2
	<hr/>			<hr/>
	3	4		3
	<hr/>	<hr/>		<hr/>
VN MR Pietas standing.				
<i>Alexandria</i>				
Divus Constantinus . . .	3		1	
<i>Cyzicus</i>				
Divus Constantinus . . .		1	1	
<i>Mints illegible</i>				
Divus Constantinus . . .	2	1		
	<hr/>			<hr/>
	5	2	2	
	<hr/>	<hr/>		<hr/>
VIRTVS AVGVSTI Emperor standing.				
<i>Mint illegible</i>				
Constantinus II.		1		
		<hr/>		<hr/>
		1		
		<hr/>		<hr/>
VICTORIA AVGG Victory l.				
<i>Constantinople</i>				
Constans		1		
		<hr/>		<hr/>
		1		
		<hr/>		<hr/>
VOT XV MVLT XX				
<i>Antioch</i>				
Constans	1	1		
<i>Mint illegible</i>				
(?)	1			
	<hr/>			<hr/>
	2	1		
	<hr/>	<hr/>		<hr/>

VOT XX MVLT XXX		H6	H2	KW	QK
<i>Alexandria</i>					
Constans		1	2		1
Constantius II		2	2		1
<i>Antioch</i>					
Constantius II		3	3	3	1
<i>Cyzicus</i>					
Constans		1	1		
Constantius II			2		1
<i>Nicomedia</i>					
Constans		1			
Constantius II		1	1		
<i>Constantinople</i>					
Constantius II		1		1	
<i>Mints illegible</i>					
Constans		4	7		2
Constantius II		1	10	1	
(?)		1	5	1	5
		16	33	6	11

VICTORIAE DD AVGG Q NN

Two Victories.

<i>Aquileia</i>					
Constans			1		
Constantius II					1
<i>Rome</i>					
Constans		3	1		1
Constantius II		3	2		
(?)		8	1		
<i>Arles</i>					
Constans			1		1
Constantius II			3	1	1
(?)		1	1		
<i>Lyons</i>					
Constantius II		1	1		
<i>Mints illegible</i>					
Constans		1	2		1
Constantius II			1		1
(?)		5	5	2	4
		22	19	3	10

H6 H2 KW QK

FEL TEMP REPARATIO
Soldier striking down foe.

Alexandria

Constantius II	5	4	7	1
Julianus Caes.	5	1	1	3
(?)	9	2		

Antioch

Constantius II	2	3		2
(?)	9			

Cyzicus

Constantius II	2	1		
(?)	2			

Nicomedia

Constantius II	3			
(?)	1			

Constantinople

Constantius II		4		1
Julianus Caes.	2	3		
(?)		1		

Siscia

Constantius II		1		
--------------------------	--	---	--	--

Rome

Constantius II		3		1
(?)	1			

Lyons

Constantius II		1		
--------------------------	--	---	--	--

Mints illegible

Constantius II	23	75	21	29
Constantius Gallus Caes.		1		2
Julianus Caes.	5	7		1
(?)	43	9	4	8

	112	116	33	48
--	-----	-----	----	----

SPES REIPVBLICE		Emperor	H6	H2	KW	QK
standing.						
<i>Alexandria</i>						
Constantius II	.	.	5	2	1	1
Julianus Caes.	.	.	3	5		
Julianus Aug.	.	.	1	1	1	
(?)	.	.	7			
<i>Antioch</i>						
Constantius II	.	.	6	4		
Julianus Caes.	.	.			2	
(?)	.	.	4			
<i>Cyzicus</i>						
Constantius II	.	.	7	8	1	1
Julianus Caes.	.	.	1	1		
Julianus Aug.	.	.	1			
<i>Nicomedia</i>						
Constantius II	.	.	2	1	1	
(?)	.	.	2			1
<i>Constantinople</i>						
Constantius II	.	.		7	1	
Julianus Caes.	.	.		1		
(?)	.	.	1			
<i>Thessalonica</i>						
Constantius II	.	.			2	
Julianus Caes.	.	.		2		
<i>Aquileia</i>						
Julianus Caes.	.	.		1		
<i>Rome</i>						
Constantius II	.	.	6	8	3	2
Julianus Caes.	.	.		2		
(?)	.	.	4			2
<i>Arles</i>						
Constantius II	.	.		1		
<i>Mints illegible</i>						
Constantius II	.	.	32	77	13	25
Julianus Caes.	.	.	11	23	2	11
Julianus Aug.	.	.				4
(?)	.	.	52	22	18	27
			145	166	45	74

VOT V

H6 H2 KW QK

Mints illegible

Jovianus	1	1
	<hr/>	<hr/>
	1	1
	<hr/>	<hr/>

VOT V MVL T X

Antioch

Jovianus	2
	<hr/>
	2
	<hr/>

 RESTITVTOR REIP Emperor
 standing.
Antioch

Valentinianus I	2
---------------------------	---

Constantinople

Valentinianus I	1
---------------------------	---

Mint illegible

Valentinianus I	1
	<hr/>
	4
	<hr/>

CLORIA ROMANORVM Em-		H 6	H 2	KW	QK
peror with captive.					
<i>Alexandria</i>					
Valentinianus I				1	
Valens		3	1	1	
(?)		3			
<i>Antioch</i>					
Valentinianus I		4		2	
Valens		8	8	2	
(?)		4	7	3	2
<i>Oyzicus</i>					
Valentinianus I			1		
(?)			1		
<i>Nicomedia</i>					
Valens		2			
(?)		2			
<i>Constantinople</i>					
Valens				1	
Gratianus			1		
<i>Thessalonica</i>					
Valentinianus I			1		1
(?)			1		
<i>Arles</i>					
Valens				1	
<i>Mints illegible</i>					
Valentinianus I		8	2		
Valens		5	13	2	4
(?)		33	48	17	20
		72	84	30	27

VOT V MVL T X

<i>Antioch</i>					
Valentinianus I		1			
<i>Constantinople</i>					
(?)		1			
<i>Mint illegible</i>					
Valentinianus I		1			
		3			

	H6	H2	KW	QK
SECVRITAS REIPVBLICAE				
Victory I.				
<i>Alexandria</i>				
Valentinianus I	8	4		
Valens	27	15	5	
Gratianus	2	4		
(?)	36	7	7	4
<i>Antioch</i>				
Valentinianus I			1	
Valens	3	2		
Gratianus		1		
(?)	15	2	1	
<i>Cyzicus</i>				
Valens	1	8		1
(?)	1	5		2
<i>Nicomedia</i>				
Valens	2	2		
(?)	2		1	1
<i>Constantinople</i>				
Valentinianus I			1	
Valens	1	3	1	
(?)	1	1		
<i>Thessalonica</i>				
Valentinianus I	1			
Valens			2	
<i>Siscia</i>				
Valentinianus I		1		
<i>Aquileia</i>				
Valens			1	
(?)			1	
<i>Rome</i>				
Valentinianus I		1		
Valens	1	6		1
(?)	3	4	3	1
<i>Trèves</i>				
Valens	1			
Gratianus	1			
<i>Mints illegible</i>				
Valentinianus I	15	10	11	
Valens	30	54	19	9
Gratianus	5	4		2
(?)	117	169	34	49
	273	303	88	70

VOT V

H6 H2 KW QK

Nicomedia

Gratianus 1

Mints illegible

Gratianus 1

(?) 1

 2 1

CONCORDIA AVGGG Roma

seated.

Cyzicus

Gratianus 1

Nicomedia

Theodosius I 1

Constantinople

Theodosius I 1

Aquileia

Valentinianus II 1

Mints illegible

Theodosius I 1

(?) 1

 2 1 3

VOT X MVL T XX

Antioch

Gratianus 2

Theodosius I 1

Cyzicus

Gratianus 1

 4

VOT XV MVLT XX		H6	H2	KW	QK
<i>Alexandria</i>					
Gratianus			2		
Valentinianus II		1			
<i>Antioch</i>					
Gratianus			1		
(?)		1			
<i>Cyzicus</i>					
(?)		1			
<i>Nicomedia</i>					
Gratianus				1	
<i>Rome</i>					
Gratianus		2			
Valentinianus II		1			1
Theodosius I		2			
<i>Trèves</i>					
Valentinianus II		1			
<i>Mints illegible</i>					
Valentinianus II		2			
Theodosius I		2			
(?)			2		
		<hr/>	<hr/>	<hr/>	<hr/>
		13	5	1	1

VOT XX MVLT XXX					
<i>Antioch</i>					
Gratianus			2	2	1
Valentinianus II		6			1
(?)		4			
<i>Cyzicus</i>					
Gratianus		3	1	1	2
Valentinianus II					1
<i>Nicomedia</i>					
Gratianus		1			
(?)		1			
<i>Constantinople</i>					
Theodosius I		1			
(?)		1			
<i>Mints illegible</i>					
Gratianus			2	1	
Theodosius I					1
(?)		1			1
		<hr/>	<hr/>	<hr/>	<hr/>
		18	5	4	7

		H 6	H 2	KW	QK
VICTORIA AVGGG Two					
Victories.					
<i>Thessalonica</i>					
Valentinianus II	. . . . .	1			
Theodosius I	. . . . .	1			
<i>Aquileia</i>					
Valentinianus II	. . . . .	1			
<i>Rome</i>					
Valentinianus II	. . . . .	2	1		
Theodosius I	. . . . .	4	4		1
Arcadius	. . . . .		1		
(?)	. . . . .	2	4		
<i>Mints illegible</i>					
Valentinianus II	. . . . .	3	1		3
Theodosius I	. . . . .	5	6	1	1
Arcadius	. . . . .	1	2	3	2
(?)	. . . . .	7	6	2	1
		<hr/>	<hr/>	<hr/>	<hr/>
		27	25	6	8

VICTORIA AVGGG Victory 1.					
<i>Aquileia</i>					
Valentinianus II	. . . . .				1
Theodosius I	. . . . .	1			
Arcadius	. . . . .			1	
<i>Rome</i>					
(?)	. . . . .		1		
<i>Arles</i>					
Valentinianus II	. . . . .	1			
Theodosius I	. . . . .	2	1	1	
Arcadius	. . . . .	4		1	
(?)	. . . . .		1	1	
<i>Lyons</i>					
Valentinianus II	. . . . .	1		1	
Theodosius I	. . . . .			1	
Arcadius	. . . . .	1			
<i>Mints illegible</i>					
Valentinianus II	. . . . .	1			1
Theodosius I	. . . . .		1		
Arcadius	. . . . .		2		1
(?)	. . . . .	10	1		
		<hr/>	<hr/>	<hr/>	<hr/>
		21	7	6	3

		H 6	H 2	KW	QK
GLORIA REIPVBLICE Gateway.					
<i>Thessalonica</i>					
Valentinianus II	. . . . .	4	2	1	1
Theodosius I	. . . . .	5	3		
Arcadius	. . . . .	2		2	1
(?)	. . . . .	1	1		
<i>Mint mark illegible</i>					
Valentinianus II	. . . . .				1
Theodosius I	. . . . .	2	1		
Arcadius	. . . . .				1
(?)	. . . . .				1
		14	7	3	5
SPES ROMANORVM Gateway.					
<i>Aquilei</i>					
Magnus Maximus	. . . . .				1
<i>Rome</i>					
Magnus Maximus	. . . . .			1	
<i>Mints illegible</i>					
Magnus Maximus	. . . . .		3	1	
Flavius Victor	. . . . .				1
(?)	. . . . .		1		
			4	2	2
VOT V					
<i>Antioch</i>					
Arcadius	. . . . .	2	1		
<i>Cyzicus</i>					
Arcadius	. . . . .	3	2	2	
<i>Nicomedia</i>					
Valentinianus II	. . . . .	1			
Arcadius	. . . . .	2	2		
<i>Constantinople</i>					
Arcadius	. . . . .	1			
(?)	. . . . .	1			
<i>Mints illegible</i>					
Theodosius I	. . . . .	1	1		
Arcadius	. . . . .	6	3	1	1
(?)	. . . . .			1	
		17	9	4	1

	H6	H2	KW	QK
VOT X MVLT XX				
<i>Alexandria</i>				
Valentinianus II	36	12	4	3
Theodosius I	61	27	13	3
Arcadius	38	23	5	4
(?)	16	3	1	2
<i>Antioch</i>				
Valentinianus II	14	7	4	2
Theodosius I	25	16	3	2
Arcadius	16	5	2	
(?)	8	6	1	3
<i>Cyzicus</i>				
Valentinianus II	7	2		3
Theodosius I	9	9		2
Arcadius		1		
<i>Nicomedia</i>				
Valentinianus II	2	1		
Theodosius I	5	2		
(?)	1			
<i>Constantinople</i>				
Valentinianus II	2	2		1
Theodosius I			1	
(?)			1	
<i>Thessalonica</i>				
Theodosius I				1
<i>Rome</i>				
Valentinianus II				1
<i>Mints illegible</i>				
Valentinianus II	23	18	4	4
Theodosius I	25	29	8	11
Arcadius	8	13	1	4
(?)	19	16	3	5
	315	192	51	51

SALVS REIPVBLICAE		Victory	H 6	H 2	KW	QK
writing on shield.						
<i>Alexandria</i>						
Flaccilla	1	
<i>Antioch</i>						
Flaccilla	3	2 1
<i>Cyzicus</i>						
Flaccilla	1	
<i>Nicomedia</i>						
Flaccilla	2	
<i>Constantinople</i>						
Flaccilla	2	
<i>Mints illegible</i>						
Flaccilla	3	1
			<hr/>	<hr/>	<hr/>	<hr/>
			10	5	1	

SALVS REIPVBLICAE		Victory				
with captive.						
<i>Alexandria</i>						
Valentinianus II	16	14 7 3
Theodosius I	29	15 6 2
Arcadius	35	17 5 4
Honorius	3	
(?)	25	11 5 2
<i>Antioch</i>						
Valentinianus II	35	18 6 5
Theodosius I	48	35 11 4
Arcadius	36	30 2 4
Honorius	4	1
(?)	51	25 4 1
<i>Cyzicus</i>						
Valentinianus II	15	6 2 2
Theodosius I	58	36 10 3
Arcadius	32	19 2 10
Honorius	3	
(?)	2	4 1 1

	H 6	H 2	KW	QK
SALVS REIPUBLICAE Victory				
with captive (<i>continued</i>).				
<i>Nicomedia</i>				
Valentinianus II	16	7	6	3
Theodosius I	27	15	8	5
Arcadius	32	19	12	2
Honorius	5			
(?)	6	2	2	
<i>Constantinople</i>				
Valentinianus II	17	11	2	7
Theodosius I	22	24	5	6
Arcadius	50	23	7	4
Honorius	1	4	1	1
(?)	2	6	1	2
<i>Thessalonica</i>				
Valentinianus II	1	1		1
Theodosius I	3	1		
Arcadius		1		
<i>Aquileia</i>				
Valentinianus II	5		1	
Theodosius I	1	2		
Arcadius	1	2		
Honorius	1			
(?)		2		
<i>Rome</i>				
Valentinianus II	1			
Theodosius I		1	1	
Arcadius	1	1		
(?)	1			
<i>Mints illegible</i>				
Valentinianus II	51	43	15	14
Theodosius I	77	62	25	20
Arcadius	72	65	19	14
Honorius	2	3	3	4
(?)	140	89	36	27
	927	615	205	151

	H6	H2	KW	QK
GLORIA ROMANORVM Em-				
peror on horseback.				
<i>Alexandria</i>				
Theodosius I	3			
Arcadius	1			1
<i>Mint illegible</i>				
Theodosius I	1			
	<hr/>			
	5			1
<hr/>				
CONCORDIA AVGGG Cross.				
<i>Alexandria</i>				
Theodosius I	20	8	2	
Arcadius	28	16	5	2
Honorius	30	8	1	
(?)	17	12	2	
<i>Antioch</i>				
Theodosius I	5	1	1	
Arcadius	6	4	1	1
Honorius	6	1		
(?)	8	8	1	
<i>Cyzicus</i>				
Arcadius	3	3		1
Honorius	3	1		2
(?)	1			
<i>Nicomedia</i>				
Theodosius I	2			
Arcadius	4	3	1	
Honorius	1			
(?)	2	2		
<i>Constantinople</i>				
Theodosius I	1			
Arcadius	5	2	2	1
Honorius	1			
(?)	2	1		2
<i>Mints illegible</i>				
Theodosius I	6	5	2	1
Arcadius	16	6	1	3
Honorius		3	1	
(?)	18	14	8	
	<hr/>			
	185	98	28	13
	<hr/>			

H6 H2 KW QK

GLORIA ROMANORVM. Three
emperors standing.

Alexandria

Theodosius I	2		
Honorius	1		2
(?)		2	

Antioch

Theodosius I	3		1
Arcadius	4	4	
Honorius	15	7	4
(?)	11	5	6

Cyzicus

Theodosius I		1	
Arcadius	6	3	
Honorius	5		1
(?)			1

Nicomedia

Theodosius I	2		
Arcadius	1		
Honorius	2	2	
(?)		2	1

Constantinople

(?)			1
---------------	--	--	---

Mints illegible

Theodosius I	2		1
Arcadius	7		2
Honorius	1	8	4
(?)		14	6
		13	7
	1	83	36
			40

	H 6	H 2	KW	QK
VIRTUS EXERCITI Emperor				
crowned by Victory.				
<i>Alexandria</i>				
Arcadius		1		
Honorius		2		
(?)				1
<i>Antioch</i>				
Arcadius			1	
Honorius		1	1	
(?)		1	2	2
<i>Cyzicus</i>				
Arcadius		1		
<i>Nicomedia</i>				
Honorius		1		
<i>Constantinople</i>				
Arcadius			4	1
Honorius			2	
(?)			1	
<i>Mints illegible</i>				
Arcadius		2		1
Honorius	1	5	3	
(?)	3	8	5	8
	4	22	19	13

CONCORDIA AVGG Roma
seated.

<i>Antioch</i>				
Honorius		1		
(?)		1		
<i>Nicomedia</i>				
Arcadius		1		
Honorius		2		
(?)		1		
<i>Mints illegible</i>				
Honorius		1		
(?)		3		3
		10		3

H 6 H 2 KW QK

VRBS ROMA FELIX Emperor
standing.

Rome

Arcadius				1
Honorius	13	7	2	1
(?)	1	5	5	
	14	12	8	1
	14	12	8	1

VOLT XX MVL T XXX*Mint illegible*

Arcadius				1
				1
				1

GLORIA ROMANORVM Em-
peror with captive.

Aquileia

Honorius				1
--------------------	--	--	--	---

Rome

Arcadius				1
--------------------	--	--	--	---

Mints illegible

Honorius				4
	1	5		
	1	5		

SALVS REIPVBLICAE Victory
writing on shield.

Cyzicus

Eudoxia				1
-------------------	--	--	--	---

Mints illegible

Eudoxia				2
	3			1
	3			1

GLORIA ROMANORVM		Two	H 6	H 2	KW	QK
emperors with globe.						
<i>Alexandria</i>						
Honorius	1	
Theodosius II	4	1 1
<i>Antioch</i>						
(?)	1	
<i>Nicomedia</i>						
Honorius	1	2 1 1
Theodosius II	1	
(?)	1	
<i>Constantinople</i>						
Honorius	6	1
Theodosius II		3
(?)	1	
<i>Mints illegible</i>						
Honorius	1	10 4 6
Theodosius II		2
(?)		4 4 8
			2	33	10	20

GLORIA ROMANORVM Two
emperors with shields.

<i>Cyzicus</i>						
Honorius	.	.	.	.	3	1 2
Theodosius II	.	.	.	.		1
<i>Constantinople</i>						
Honorius	.	.	.	.	9	
Theodosius II	.	.	.	.	1	2
(?)	.	.	.	.	3	1
<i>Thessalonica</i>						
Honorius	.	.	.	.	3	
Theodosius II	.	.	.	.	1	
<i>Mints illegible</i>						
Honorius	.	.	.	.	3	2 4
Theodosius II	.	.	.	.	3	
(?)	.	.	.	.	5	4
			31	7	10	

	H6	H2	KW	QK
Cross in wreath.				
<i>Antioch</i>				
Theodosius II				1
<i>Cyzicus</i>				
Theodosius II				7
<i>Nicomedia</i>				
Theodosius II			1	3
<i>Constantinople</i>				
Theodosius II				1
<i>Mints illegible</i>				
Theodosius II				9
			1	21

CONCORDIA AVGG Victory l.





<i>Antioch</i>				
Theodosius II				1
<i>Cyzicus</i>				
Theodosius II				1
<i>Constantinople</i>				
Theodosius II				1
<i>Mints illegible</i>				
Theodosius II				3
				6

OVERSE BROCKAGES (Gratianus,
Arcadius, and Honorius).

	4	3
	4	3

III. THEODOSIUS II—ZENO.

<i>Theodosius II</i>				
S. 34				1
				1

	QK
<i>Marcianus</i>	
S. 11: ex. KVZ (?)	1
" : ex. NICO	7
" : ex. CON	11
" : ex. (?)	14
	33
<i>Leo I</i>	
S. 14: ex. NICO	3
" : ex. CON or CN	9
" : ex. SMR (?)	1
" : ex. (?)	9
S. 15	30
S. 17	12
S. 18	35
S. 19	2
S. 20	1
Lion standing l., looking back: above, cross: ex. TES (?)	1
Lion couched l., looking back: in wreath: ex. ALEA	1
" " " " ex. KVZ	1
" " " " ex. CON	14
" " " " ex. (?)	4
Two emperors standing to front, cross between	4
	127
<i>Zeno</i>	
S. 19	10
 in wreath	2
 in wreath	2
	14
<i>Aelia Zenonis</i>	
S. 2	2
	2
<i>Basiliscus</i>	
 in wreath	1
	1
<i>Verina (with Basiliscus)</i>	
 in wreath	3
	3


CLASS E (QK only).

Monograms of Marcianus ($\overline{\text{S}}\overline{\text{P}}$, $\overline{\text{S}}\overline{\text{P}}$, $\overline{\text{H}}$, $\overline{\text{P}}\overline{\text{P}}$)	24
Monograms of Leo I ($\overline{\text{L}}\overline{\text{E}}$, $\overline{\text{L}}$, $\overline{\text{L}}\overline{\text{E}}$, $\overline{\text{L}}\overline{\text{E}}$, $\overline{\text{L}}\overline{\text{E}}$, $\overline{\text{L}}\overline{\text{E}}$)	12
Emperor with globe and sceptre (Léo)	23
Emperor with labarum and captive (Leo)	10
Lion l., looking back (Leo)	12
Lion r., looking back (Leo)	1
Monograms of Zeno ($\overline{\text{Z}}$, $\overline{\text{Z}}$)	4
Fragmentary	7

CLASS G.

	H2	KW	QK
<i>Trajanus</i> . Dattari 1222			1
<i>Probus</i> . C. 391.			1
<i>Helena</i> . C. 4 (different moulds)			2
<i>Constantinus I.</i> C. 123 (two moulds, 5 and 4 specimens)			9
C. 760 (H2 specimens SMAL-)	2		13
(Urbs Roma) C. 19 (3 SMALA , of same mould)			4
(Pop. Romanus) C. 2 (all same mould)			6
<i>Crispus</i> . C. 46.			1
C. 62 (?)			2
<i>Constantinus II.</i> C. 97 var.			8
C. 113	1		
C. 246 (two or three different moulds)			6
C. 272 (probably all same mould)			16
<i>Constans I.</i> C. 56 (1 SMALΓ)			2
C. 60 (CON-)			1
C. 197 (2 SMALA , same mould)			4
<i>Constantinus II.</i> C. 48	2		1
C. 48, but <i>rev. leg.</i> [] PVBLICE , <i>ex. - - AL</i> - (all same mould)			4
C. 92 (SMANH)			1
C. 94 (SMALA)			1
C. 95 (SMALA)			2
C. 96 (SMANH)		1	
C. 167 (ANZ , all same mould)			4
C. 209 (RT)	1		
C. 293 (SMTSA)			1
C. 335 (1 SMALΔ , 3 ANTAI , all same mould, 1 CONSI)			6

	H2	KW	QK
<i>Obv. illegible.</i> Gloria Exercitus type	1	1	15
Vot XX Mult XXX (1 SMALA, 1 SMA - -)			16
Fel Temp Reparatio type (all from "barbarous" originals)		1	4
<i>Julianus.</i> C. 4 (ALE, to l. A: all same mould)			9
C. 151 (three moulds)			4
<i>Valentinianus I.</i> C. 37	1		
<i>Gratianus.</i> C. 71			3
C. 77 (1 SMNB, 1 SMND)	1	1	
<i>Valentinianus II.</i> C. 30 (1 ALEΔ, 1 SMK-)	1	1	4
C. 45			1
C. 68 (RS)			1
C. 73 (1 ALEA, 1 ANTA)	2		5
C. 75 (SMKA)			2
<i>Theodosius I.</i> C. 15		1	
C. 21 (ALEΓ)			1
C. 30 (1 ALEA, 3 ANTΔ, 4 SMKA, 2 SMKΓ, 5 SMKΔ, 1 SMKE, 1 SMN- 2 CONSΔ, 1 TES-, 1 BSIS)	5	2	39
C. 63			1
C. 68 (1 SMNA, 2 SMNB, 1 RS)			8
Vot XX Mult XXX (SMKB)			1
<i>Arcadius.</i> S. 41 (1 ALEΓ, 1 ALEΔ, 2 SMKA, 3 SMKΓ, 1 SMNB, 1 SMN- 1 AQS)	1	6	14
S. 48 (1 ALE -)	2	2	1
<i>Honorius.</i> C. 27			1
C. 32 (CONS-)			1
<i>Obv. illegible.</i> Gloria Reipublice type: gateway (TES)		1	
Salus Reipublicae type: Victory with captive (1 SMKΓ)	3	9	54
Vot X Mult XX		2	6
Vot XX Mult XXX			3
<i>Barbarous.</i> Bust r. (one l.): Salus Reipub- licae type			23
Bust r.: emperor crowned by Victory			1
Bust or head r., Victory l. (on five traces of legend - AVG)			28
Head r., Victory r.			1
Head r., blundered Votis types in wreath			35
Head r., cross in wreath			17

	H2	KW	QK
<i>Theodosius II.</i> S. 34 (2 SMKA, 4 CONS)			21
<i>Marcianus.</i> S. 11 (26 CON)			72
<i>Leo I.</i> S. 14 (1 CON, 2 star to l. on rev.)			18
S. 17			1
S. 18			5
S. 19			3
<i>Barbarous.</i> Head r., legend blundered:			
			2
ditto: ⲪⲥⲔ (11), ⲪⲥⲔ , ⲘⲥⲔ , ⲘⲥⲔ , ⲘⲥⲔ			15
ditto: lion r., looking back			50
ditto: illegible monogram			10
<i>Axumite.</i> BACI ΛEVC, bust r.: HIA			
HIC, ear of corn			1
ditto: ΤΟΥΤΟΑΡΕCΗΤΗΧΩΠΑ			
Cross			14
(?) Head r.: (?) in wreath			1
<i>Unidentifiable</i>	1	1	196

SUMMARY.

	H6	H2	KW	QK
I. Pre-Constantinian	7	3	4	7
II. Constantinus I - Theodosius II	2252	1939	606	612
III. Theodosius II-Zeno				181
IV. Copies—Class A			176	60
" B			41	8
" C			32	19
" D	212		45	25
" E				81
" F			61	153
" G			24	29
Illegible	661	678	170	804
	3182	2999	1074	2747

J. G. MILNE.

NOTE:—A plate of illustrations of the copies of Class G was published in *Ancient Egypt*, 1926. 7

CHAFFREY CARLES.

THE signatory of a letter addressed to the Signoria of Florence on Aug. 19, 1506, in the name of Charles d'Amboise, asking for an extension of the leave which had been granted to Leonardo da Vinci, has been the subject of some discussion by Leonardists and others interested in the history of the period. His name in the letter in question appears as Iafredus Karli; it had been misread by Gaye¹ as Kardi, which for some time helped to obscure his identity. Recently Senator Beltrami and Sig. G. Calvi² have returned to the matter. As they seem to find the person somewhat obscure, and the literature relating to him is certainly difficult to consult, being scattered in local publications,³ it may be worth while to summarize what is known of

¹ *Carteggio*, ii, p. 86.

² The former in *Misc. Vinciana*, Milan, Allegretti, Feb. 1923 (I owe a copy of this publication to the kindness of Dr. Augusto Calabi); the latter in *I manoscritti di Leon. da Vinci* (Ist. di Stud. Vinc. in Roma, Vol. 6, 1925, pp. 237, 272).

³ Chevalier, *Répertoire*, under Carles (Chaffrey) gives certain references. The most important of these being quite inaccessible in England, so far as I can ascertain, I appealed to M. Adrien Blanchet, who with extreme kindness transcribed with his own hand the gist of G. Vallier's articles: "Numismatique du Parlement de Grenoble, Chaffrey Carles" in *Bull. Soc. archéol. Drôme*, 1877, xi. 101-128; 1883, xvii. 219; 1887, xxi. 63-68.

him in connexion with the medal here illustrated.⁴
And first the description of the medal itself:

Obv. IAFREDVS • KAROLI • IVRCONSULTVS •
PRESES • DELHINATVS • E MLI (spray of
oak?). Bust r. in berretto, hair "bobbed";
voluminous robe.

Rev. NATVS EGO • TIBI SVM VENIAM QVO
CVNQVE VOCARIS Rocky landscape; an
angel presents Giaffredo to a high-priest-like
figure, who points upwards to the sun.

Bronze, cast ↑ 79 mm.

Specimens are in the Ambrosiana (from which the above description is made) and in the Cabinet de Grenoble (80 mm.; gilt on the obverse). A specimen was described by Armand⁵ from the Heiss Collection; where this now is, I have been unable to discover.⁶

Vallier's description differs in slight particulars; he notes that the Ambrosiana specimen shows no punctuation where the Grenoble one shows **IVR•** and **SVM•**. The latter also shows compass-lines circumscribing the inscriptions. The marks of abbreviation above **IVR** and **MLI** (accidentally omitted in our drawing) are not seen on the Grenoble specimen. The figure dressed something like a Jewish high-priest Vallier calls Religion, and the mountains the Alps. "Veniam quocunque vocaris" is from Virgil, *Ecl.* iii. 49.

In what follows I give in brief, with a few additions

⁴ I owe it to the kindness of Monsignor Galbiati, Prefetto of the Ambrosiana, that I am able to publish the accompanying drawing, made by Mr. C. O. Waterhouse from a photograph.

⁵ *Médailleurs italiens*, ii, 1883, p. 143, no. 22; iii, 1887, p. 204 G.

⁶ The disappearance of the medals in the Heiss Collection is mysterious, and any one who can trace them will confer a great service on students of the subject.



from other sources, Vallier's information as to the career of Carles (Jaffred, Geoffroy, Soffrey, or Chaffrey). He never belonged, as Rochas⁷ states, to an old Grenoble family.⁸ He graduated doctor at Turin, and the Marquess Louis II (1475-1482) made him podestà of Saluzzo and Carmagnola. He was sent on a mission to France and obtained the restitution of the marquise which had been taken by Charles, Duke of Savoy. Charles VIII gave him the title of Councillor of his Parliament at Grenoble in 1494. A decree of Louis XII of December 24, 1502, calls him "our beloved and faithful councillor master Iafredus Karolus President of Dauphiné".⁹ He was still holding that office in 1516; in 1510 he received 3000 livres "tant pour l'office de vichancellier (de Millan) que pour l'office du sénat".¹⁰ He appears to have been a leading spirit in the negotiations which led to the conclusion of the League of Cambrai against Venice in 1508.¹¹ He

⁷ *Biogr. du Dauphiné*, Paris, 1856. There is a biographical notice of him by Franc. Agostino della Chiesa, *Discorsi sopra alcune famiglie nobili del Piemonte*, MS. in the Regio archivio di Stato at Turin, without number, but with the motto *Nil virtute nobilius* on its cover.

⁸ Armand, *loc. cit.*, calls him Giaffredo di Carlo di Cuneo, vice-chancellor and vice-president of the Milanese Senate, 1505-1507. He gives no authority. Chevalier's summary is "né à Saluces v. 1460, avocat du roi 1491/2 fév. 28, conseiller 1492 Oct. 25, puis président du parlem. de Grenoble 1500 nov. 28, présid. du sénat de Milan 1504, † à Grenoble 1516 c^t".

⁹ L. G. Péliissier, *Doc. pour l'hist. de la dom. fr. dans le milanois*, 1891, p. 92, quoted by Calvi.

¹⁰ *Chron. de Louis XII par Jean d'Auton*, ed. R. de Maulde la Clavière, ii, 1891, p. 356, quoted by Calvi.

¹¹ Compare C. Denina, *Delle Rivoluzioni d'Italia* (Turin, 1770, vol. iii, p. 144): "un Carlo Giuffredo Piemontese", one of the secretaries of state of the Government of Milan in the service of Louis XII.

fought bravely at Agnadello and was knighted by Louis on May 14, 1509. He became the centre of the literary circle in Milan, and a number of books were dedicated to him.¹² After Novara (1513) he followed Louis, and in 1514 was entrusted by Anne of Brittany with the education of her daughter Renée. Carles

¹² Joannes Maria Catanneus, dedication of his edition of Pliny the Younger's letters, &c. (Dec. 14, 1510): "Clarissimo praesidi Gratianopolis ac Mediolani Iafredo Carolo iuris civilis et pontificii prudentissimo". The dedication itself was written at Milan, "cal. Decembris M. D. V". In the course of it the writer compares Iafredus to Pliny: "nam uterque senator optimus. tu iuris-consultus subtilis: & orator eloquens: . . . uterque sub felicissimis regibus per bonas artes ad summa pervectus. illum Traiani felicitas clariorem reddidit: te Gallorum Regum benignitas ad amplissimos magistratus extulit: & sub felicissimo Rege Carolo sublatam dignitatem tuam sub Ludovico feliciore in maius auxit. . . tu provinciae Narbonensis: & Insubriae (Praeses) summa cum integritate summam cuiusque ordinis hominum rationem servans", &c., &c. Baptista Mantuanus, dedication of his *Life of Dionysius Areopagita*: "Iafrede Carole Mediolani Vicecancellarie: Praeses Delphinatus dignissime". (I quote from the Paris edition of the *De Colamitatibus*, &c., in *aedibus ascensianis, anno MDVII ad calen. Iulias*, fol. aa ii v°. According to W. P. Mustard, *The Eclogues of Baptista Mantuanus* (Baltimore, 1911), p. 28, note 83, the *Life of Dionysius* was published at Milan as early as 1506; he must refer to the edition by Petrus Martyr Mantegatius, which is inaccessible to me). Finally, Janus Parrhasius is said to have dedicated to him his commentary on Claudian *de Raptu Proserpinae* (so Gariel, *Bibl. du Dauphiné*, i, 1864, p. 81: neither the 1501 nor the 1505 edition of this book is in the British Museum; and 76 h. 12 is dedicated to Catellianus Cotta of Milan). Carles also collected manuscripts (L. Delisle, *Cab. des MSS.*, i, p. 253; cp. Ger. d'Adda in *Arch. Stor. Lomb.*, 1885, p. 765 n. 2). One in the Bibliothèque Nationale (ms. lat. 3111) bears his name and title in a medallion on the illuminated frontispiece; another (Ptolemy, *Cosmographia*) has his shield—a gold lion on a red field—and some verses written by or for him; a third, now in the library at Lyon, is a copy of the *Liber harmoniae instrumentalis* of the famous Milanese musician, Franchino Gaffurio.

died at Grenoble early in 1516, aged about 55 years, and was buried in the choir of St. André on April 10.¹³

According to Guy Allard,¹⁴ Carles was also sent on a mission to Leo X, from whom he received various privileges.

As the medal does not mention the knightly rank of the sitter, we may assume that it was made before May 1509. Vallier's notion that the medal was "offered" to Carles when he left Italy for France is due to a false analogy with modern usage; in the days with which we are concerned a person did not wait to have medals presented to him on the occasion of some event in his career. We may date the medal about 1505, and assume that it was made at Milan, though it does not seem possible to name the medallist.

G. F. HILL.

¹³ Piollet, *Étude historique sur Geoffroy Carles*, quoted by Vallier, cites from the obituary of the chapter of the collegiate church of Saint-André, Grenoble: "Hac die X aprilis 1516 fuit inhumatus in hac ecclesia magnificus dominus Jaffredus Caroli, legum et armorum miles presidens Delphinatus". Is *doctor* omitted after *legum*?

¹⁴ In Gariel, *Bibl. du Dauphiné*, i, 1864, p. 81. I do not know how far this author's statements are to be trusted. He says that Louis sent him on a mission to the King of the Romans, with Giangiacomo Trivulzio, in 1508. Allard describes at length from autopsy the bull of Leo X granting exemptions and privileges to Carles and his fellow-councillors. I have found no trace of this in Hergenröther's *Regesta*, but in the incomplete and unindexed state of this collection it is easy to miss an entry.

VI.

MINT ACCOUNTS AND DOCUMENTS OF EDWARD IV.

THESE extracts from the Exchequer and other archives at the Public Record Office form a rather belated supplement to the figures printed by Mr. F. A. Walters in *Num. Chron.*, 4 Ser., xiv, 341 and 344, when he was describing the coinages at Bristol and at the Royal Mint in York after the second deposition of Henry VI. Although the extant and available documents for the reign of Edward IV are not so complete as the numismatic record of the first three Edwards, the more important details would be, as Mr. Walters says in a recent letter to me, both interesting and useful in questions which might possibly arise.

I shall not attempt to discuss here the relationship between the coins and the accounts, as that duty seems to lie more particularly within the province of Mr. Walters and Mr. L. A. Lawrence, who have given much attention to the English coinages of the fifteenth century.

It will be convenient perhaps to begin with a list of the known indentures, or contracts with the master-worker, as upon them were based the duties of the moneyers and the accountancy which recorded their operations.

1. May 23, 1st year (1461). The existence of this contract is disclosed solely in a Foreign Roll to be presently cited, and its provisions are unfortunately not known. Ruding remarks that it would appear

from the indentures that Edward's first English coinage was in his fourth year.

2. August 13, 4th year (1464). This is the indenture which reduced the weight of the silver coins and varied the current rating of the noble; it also placed the mints in Ireland under the control of the master-worker at the Tower. It was duly enrolled, and is printed in the Calendar of Patents.

3. March 6, 5th year (1464-5). In this case there was no enrolment, the date being derived from a recital in an Exch. K.R. account, which does not mention the terms of the document. Its contents have been the subject of speculation, but presumably it ordered an increase in the weight and rating of the noble, and the striking of angels, leaving the silver as settled in 1464.¹

An apposite item of information which appears to have escaped notice in our pages may be interpolated. On July 6, 1465, three commissions were issued for the purpose of taking coiners and workmen for the mint or dies of gold and silver at Bristol, Norwich, and Coventry respectively (*Pat. Roll passim*). These orders fix with sufficient certainty the date of three of the provincial royal mints, York being already in existence. It is a reasonable inference that the indenture of the preceding March 6 authorized the additional mints, the genesis of which has hitherto been a matter of intelligent and, as is now shown, accurate deduction.

4. March 2, 8th year (1468-9). This was enrolled, and has been printed. The denominations, five in gold and five in silver, were probably the same in all

¹ After the paper was in type the editors found and copied this indenture, which is on Memoranda Roll Exch. K. R. 6 Edw. IV. Its terms confirm the forecast indicated above.

respects as those in no. 3 indenture, 1464-5, but the new country mints are not mentioned.

5. February 23, 11th year (1471-2). Enrolled and printed. The material provisions are identical with those of no. 4, 1468-9. Conceivably its purpose was officially to reinstate Edward's coinage under the control of Hastings, who had ceased to be master-worker, as we shall see, during the irruption of Henry VI.

6. February 3, 16th year (1476-7). Enrolled and printed. Identical with no. 4, 1468-9.

7. February 12, 22nd year (1482-3). Enrolled and printed. Identical with no. 4, but the contract is with a new master-worker.

The officials chiefly responsible for giving effect to the seven indentures were:

The wardens:—Thomas Montgomery until 1468, when he was succeeded by John Wode, who held the post until 1476, in which year he was associated with Thomas Bowes as joint warden; the latter died in September 1479, leaving his colleague still in office.

The master-workers:—William, Lord Hastings, held this office for practically the whole reign, until Bartholomew Reed took his place in February 1482-3.

The gravers:—Edmund Shaw (spelt Shaa) was appointed in 1462, and served until 1482, when John Shaw, possibly his son, received a grant by patent.

I should add that the holders of the respective offices had explicit jurisdiction over all the king's mints in England, but doubtless acted through local deputies, whose names are very rarely declared. The organization thus differed from that obtaining under, say, Henry VIII and his son, when the provincial mints had independent establishments and officers.

Consequently we find here that the output of every royal mint is brought within the orbit of the warden of the Tower, who does not however tell us everything that we could wish and indeed expect under Edward's administrative system.

I can now pass on to the accounts recording the weight of bullion struck into current money of the day; some of them merely state the aggregate quantity used during a given period, others return the figures separately for each month. But there is one feature common to all these accounts, namely, the omission of any reference to the denominations, which was due, I believe, to the fact that the object of the document was to secure the king's seigniorage on each pound weight of gold and silver. Hence it mattered not to the king whether the pound was sheared into fifty coins or a hundred. I noticed, incidentally, that the profits of the mints were assigned for the expenses of the royal household.

An account by the warden of work done at the Tower mint only, from Sept. 15, 2 Edw. IV (1462), to Sept. 1, 4 Edw. IV (1464), according to an indenture between the king and the master-worker in 1461 (*supra*, no. 1), within which period there were coined

293 lb. gold.

11,885 lb. silver.

(Exch. Foreign Roll L.T.R. 98.)

Account by the warden of work done at the Tower mint only, from Sept. 1, 4 Edw. IV (1464), to Sept. 29, 6 Edw. IV (1466), according to an indenture dated in 1464-5 (*supra*, no. 3), within which period

12,389 lb. gold.

55,334 lb. silver.

(Exch. Acct. K.R. 294/18. Also on Foreign Roll 102.)

Account by the warden of work at the Tower, Bristol, and York from Sept. 29, 9 Edw. IV (1469), to Sept. 29, 15 Edw. IV (1475). The indenture is not mentioned.² This account, the longest of the series, shows the output month by month at each of the three mints named. In the appended tables, beginning with the Tower figures, the fractions of a pound weight are omitted.

THE TOWER MINT.

	Gold lb. Tower	Silver lb. Tower		Gold lb. Tower	Silver lb. Tower
9 Edward IV			10 Edward IV		
October	109	364	March	210	718
November	236	986	April	109	580
December	180	670	May	149	566
January	72	178	June	345	1093
February	249	599	July	190	589
			August	281	854
			September	156	914

At this point the account halts, the figures are cast up, and a memorandum by the warden explains that no profits on coining at the Tower and at Bristol were returned from Sept. 30, 10 Edw. IV, to the Feast of Easter next following, as they were taken by two officers of Henry VI, then *de facto* king; nor were there any profits on gold and silver coined at York from the said Sept. 30 to Dec. 25 next following, for the same reason. But he charges himself with £7 9s. 6d. profits on gold and silver coined at York from Dec. 25 to the said Feast of Easter. The latter part of this memorandum suggests to me the possibility that Henry's control of the royal mint at York continued for three months only, instead of six months, as at the Tower and Bristol. We know that Henry

² But another document, 294/19, quotes the indenture as that of 1468-9 (*supra*, no. 4).

displaced Hastings, and hurriedly appointed Richard Tunstall as master-worker, but the latter may have thought it more prudent to remain silent as to his operations. Be that as it may, no account by Tunstall has survived. Returning to the main subject, the warden having thus commented on that critical half year, resumes on the same roll his chronicle of the bullion coined by the Tower moneyers after the resumption of power by Edward IV.

TOWER MINT (continued).

	Gold lb.	Silver lb.		Gold lb.	Silver lb.
	Tower	Tower		Tower	Tower
11 Edward IV			12 Edward IV		
May	91	487	March	208	1242
June	141	1128	April	163	671
July	284	1185	May	134	871
August	170	1219	June	176	808
September	193	1227	July	130	484
October	158	1232	August	257	872
November	235	839	September	223	1376
December	202	989	October	Nil	Nil
January	61	333	November	261	865
February	203	1003	December	242	1157
			January	52	Nil
			February	141	658
13 Edward IV			14 Edward IV		
March	116	430	March	275	984
April	139	902	April	115	327
May	211	1027	May	156	487
June	109	352	June	172	798
July	119	487	July	105	482
August	127	438	August	221	830
September	157	857	September	162	542
October	86	445	October	Nil	Nil
November	110	395	November	243	658
December	131	704	December	83	614
January	Nil	Nil	January	91	429
February	Nil	Nil	February	52	467
15 Edward IV			15 Edward IV		
March	63	608	July	Nil	Nil
April	55	559	August	300	907
May	98	1033	September	142	908
June	185	998			

(Exch. Accts. K.R. 294/20.)

The portion of the monthly account relating to Bristol which will next be transcribed runs from Sept. 29, 9 Edw. IV (1469), to Sept. 30, 10 Edw. IV (1470). The later portion subsequent to Henry's final deposition has already been published by Mr. Walters, as stated at the beginning of this paper. There can be little if any doubt that the Bristol mint ceased to function in July 1472, when its account ends, seeing that the Tower figures on the same document continue until September 1475.

BRISTOL MINT.					
	<i>Gold</i> lb.	<i>Silver</i> lb.		<i>Gold</i> lb.	<i>Silver</i> lb.
	Tower	Tower		Tower	Tower
9 Edw. IV			10 Edw. IV		
October	10	85	March	11	87
November	12	77	April	9	68
December	14	92	May	10	89
January	10	99	June	11	88
February	13	83	July	12	99
			August	12	92
			September	12	79

(Exch. Accts. K.R. 294/20.)

The remaining country mint is that of York, where the quantities coined were very small, but curiously uniform throughout the year, as indeed they were at Bristol. The account covers the same twelve months as Bristol, and in like manner my transcription ceases where Mr. Walters' table begins. Here also we may justly assume that York was closed in September 1471, the latest entry on the roll concerning that city.

YORK ROYAL MINT.					
	<i>Gold</i> lb.	<i>Silver</i> lb.		<i>Gold</i> lb.	<i>Silver</i> lb.
	Tower	Tower		Tower	Tower
9 Edw. IV			10 Edw. IV		
October	5	110	March	6	109
November	6	117	April	6	119
December	6	108	May	8	122
January	6	119	June	9	109
February	6	118	July	10	90
			August	9	98
			September	7	89

(Exch. Accts. K.R. 294/20.)

An account by the joint wardens of work done at the Tower mint only, from Sept. 29, 17 Edw. IV (1477), to Sept. 29, 18 Edw. IV (1478), according to an indenture between the king and the master-worker in 1476-7 (*supra*, no. 6), within which period there were coined

1,121 lb. gold,
2,092 lb. silver.

(Exch. Accts. K.R. 294/22.)

An account by the warden of work done at the Tower mint only, month by month, from Sept. 29, 18 Edw. IV (1478), to Sept. 29, 1479, according to an indenture in 1476-7 (*supra*, no. 6) :

TOWER MINT.					
	Gold lb. Tower	Silver lb. Tower		Gold lb. Tower	Silver lb. Tower
18 Edw. IV			19 Edw. IV		
October	78	141	On the vigil of		
November	79	99	Easter, Apr. 9	143	434
December	46	114	April	62	146
January	114	113	May	96	432
February	83	100	June	82	497
			July	138	305
			August	92	150
			Sept. to 14th	28	80

(Exch. Accts. K.R. 294/27 and 26.)

This monthly account is particularly interesting because it reveals the weight of bullion coined on one named day, the vigil of Easter, or Holy Saturday, in 1479. It is, I believe, quite unusual that these fifteenth-century scribes should tell us the result of one day's work by the moneyers, and a good day's work it must have been. Why the output on this specific date was stated with such preciseness and separated from the bullion coined during the same month will probably never be known, but the occasion, whatever it may have been, was surely of a very exceptional character.

The reckoning is closed on the 14th instead of the 29th September, as the junior warden, Bowes, had died on the former date.

The latest account which I was able to note is one prepared by the surviving warden from Sept. 14, 19 Edw. IV (1479), to Sept. 29, 1480, according to the indenture of 1476-7 (*supra*, no. 6). During that period there were coined at the Tower

1,387 lb. gold,

1,950 lb. silver.

(Exch. Accts. K.R. 294/28.)

Fortunately it is possible to cite another source of information, namely, the solitary instance in this reign of a recorded pyx trial. The post-restoration coinage at the London mint, as set out in the foregoing table, derived from account 294/20, was subsequently tested with the customary formalities. I have made an abstract, rendered into English, of the details of a public assay relating to gold and silver coins struck at the Tower only, which thus ignored certain Bristol and York coinages made, as we have seen, under Tower control in the prescribed period. The document in question supplies, within its limits of time, the particulars as to denominations which were denied to us in all the Exchequer accounts. It will be apparent that the gold coins were restricted to the angel and angelet during the four-and-a-half years included in the ceremony, although the rose noble or ryal and its divisions were still ordered in the governing indentures. This is confirmed by the extant coins, among which no late rose nobles have so far been identified.

The numerous privy marks which adorn Edward's coins indicate a general compliance with the order to

use such symbols, and it is therefore the more surprising that so little evidence has come down to us with respect to the assays, which are believed to have been held whenever a privy mark was changed.

A TRIAL OF THE PYX.

Assays of gold and silver made at Westminster on Friday the 1st December, 15 Edward IV (1475), then king, in the presence of the Venerable Father in Christ, Thomas, Bishop of Lincoln and Chancellor of England (with others of high degree), concerning the money of gold and silver struck in the Tower of London between the Feast of Easter (April 14) in the eleventh year of the King and November 30 in his fifteenth year, in the time that is to say of William, Lord Hastings, master-worker of the money, and John Wode, warden of the mint and exchange within the Tower, when in a proper chest there were found thirty-six satchels of which thirty-four satchels taken from 3,000 Tower pounds³ of gold and from 15,107 pounds of silver of the same weight, each of which contained two nobles called angels and one half-noble called angelet of gold and forty pence of silver by tale, namely six groats, four half groats, four pennies, seven halfpennies and two farthings, and the two remaining satchels each taken from 4,109 pounds 2 ounces of gold and from 1920 pounds 5 ounces of silver, each of which contained 7^{li} 10^s of gold by tale and 37^s 6^d of silver by tale coined within the Tower and delivered outside the exchange aforesaid during the same period; and

³ The pound Tower containing 5,400 grains was abolished by Henry VIII in 1526, when the pound Troy of 5,760 grains was substituted for it, thus increasing the weight of the pound by 15 dwt.

the same angels and half-angels taken from the satchels and intermingled were then weighed with the standard of the pound Tower by Humfrey Hayford, goldsmith, citizen and alderman of London, William Woodward, Robert Hill, John Kyrkeby and David Panter, goldsmiths, sworn for the assay, when it was found that 22^{li} 10^s of gold by tale agreed in weight with the same standard according to the covenant in the indenture between the king and the master-worker; and from the angels and angelets so intermingled one half pound weight was taken and after cutting was assayed by fire and touchstone as was customary, when it was found that the gold was of just allay near to the tenor of the covenant. And in like manner the groats etc. having been taken from all the satchels and intermingled for an assay by weighing according to the standard by the assayers aforesaid, it was found that 37^s 6^d by tale of those moneys agreed with the standard of weight; from which groats etc. one half pound weight having been taken, namely 18^s 9^d for an assay by fire by the subtle pound weight, after cutting them as was customary it was found after taking the money from the fire that it was equal in allay to the standard and accorded with the covenant in the indenture. Therefore that money was good and lawful.

(Exch. Accts. K.R. 302/13.)

This record of the pyx trial in 1475 is not noticed by Ruding in his Appendix V, where he reviews the early testing ceremonies, nor has it been published elsewhere as far as I am aware. In the reign of Edward IV the rule was to take for the pyx the value of a noble from each 10 lb. weight of gold coins, and two shillings by tale from each 100 lb. weight of silver, in

equal portions of all denominations. The contents of each satchel represented in theory the output of a month in which the coins were not tested in public, but in this case we learn that the chest held thirty-six satchels, which were not sufficient in number when comparison is made with the foregoing monthly returns of bullion coined during the period in question; it would seem, therefore, that the precept was not always honoured in practice. I was unable to find that an acquittance to the master-worker in respect of this trial had been enrolled among the patents.

Among a bundle of original privy-seal parchments is a letter of August 30, 1470, instructing William Snawshill, the keeper of the mint at York, to repay a loan of £20 made to the king for his expenses there (294/21). This tells us the name, hitherto unknown, of John Wode's deputy in that city. Similarly, Mr. Walters (*op. cit.*) has rescued from oblivion the names of the deputy at Bristol, one John Mokelowe, and of William Omoryche, the graver of the bishop's dies at Durham. I regret my failure to discover, with one exception already noted, any evidence as to the history of the mints at Norwich and Coventry, each of which struck gold and silver, as we all know. The accounts do not help us in any way, and such other official records as I was able to consult were equally unproductive. Under these circumstances it may be useful to bring together a few dates and facts which indirectly throw light upon the obscurity. We may fairly assume that the two mints began to work in or shortly before July 1465, when formal permission to engage coiners was given. On September 16 in the same year the king (by means of a long privy-seal

letter) desired Hugh Brice, deputy to Hastings the master-worker, to take upon him the keeping of the mints in England, and, among other things, altered the amount of the royal seigniorage which had been charged upon the coinage before the said September 16 at the mints in London, York, Coventry, Norwich, and Bristol respectively. The new charges then ordered were to be paid at London, York, and Bristol. What is the true inference to be drawn from the omission of Norwich and Coventry? I think the passage means that they had ceased to be active in September 1465, or that they were to be closed immediately after that date. If I am right the two mints would have had a working life of three or four months only, a period not inconsistent with the scarcity of their coins. The alternative interpretation is that the earlier charges were to remain unaltered at Norwich and Coventry, but in view of their small output it seems improbable that differential rates of seigniorage were intended to be established by the new decree. The document under consideration was not enrolled among the patents until 1469 (part 1, m. 20). There is one other sidelight to be quoted. On October 26, 1468, the warden at the Tower was authorized by letter of privy seal to pay his deputies and repair the mints at Bristol and York (294/21). This affords presumptive testimony that the undertakings at Norwich and Coventry no longer existed.

A word should be added with respect to the royal mint at Canterbury, which Mr. Walters and other authorities believe, on the evidence of the coins, to have been in operation during an indefinite period before the return of Henry VI in 1470. The question

is complicated by the existence of an active ecclesiastical mint side by side with the king's establishment. If we apply to Canterbury the documentary test already applied to Norwich and Coventry, it would appear that in September 1465, when the seigniorage was altered, and again in October 1468, when the Tower warden was instructed, the first-named city was not striking a royal coinage, as no allusion was made to it. Consequently if it was in fact a separate entity, it may have been started and also extinguished between 1465 and 1468.

It remains to be said that I did not find any indications of an active mint at Calais during the whole reign.

HENRY SYMONDS.

REVIEW

Aes Grave: a study of the cast coinage of Rome and Central Italy. By EDWARD A. SYDENHAM, M.A., pp. 145, pl. 28. Spink & Son, Piccadilly, 1926. £1. 1s. 0d.

That curious chapter in numismatic history which is filled by the Roman and Italian coinage of heavy cast bronze lends itself very well to special treatment, and we may at once congratulate Mr. Sydenham on his choice of subject. For the advanced student Haeberlin's *Corpus* is of course indispensable, but it has some of the defects of its great merits and is not always easy to handle. There is ample room for a shorter and more summary treatment of the whole subject, and Mr. Sydenham, with his long experience of the practical as well as of the theoretical side, is just the right man for the task.

It must not be thought, however, that because this book is short it is not thorough. The author begins with an outline of his subject and a glance over its literature; he then defines the relation of the "Aes Grave" to the ingot bronze or "Aes Rude" of earlier times, and to the bars, commonly known as "Aes Signatum": then, reaching the heart of his subject, he discusses the date when "Aes Grave" was introduced at Rome, its standards of weight and their reductions, its place in the monetary system. Passing on to the "Aes Grave" of Central Italy, Campania, Apulia, Etruria, &c., he notes their relations to the Roman and discusses the chief problems to which they give rise. In a closing section he gives us a sober and sensible treatment of the question of types. Then come a synopsis of issues and a concise, but thoroughly serviceable, *Corpus* of "Aes Grave": index and plates—the latter well selected and of excellent quality—close the book.

The merits of this work are great and obvious—it is lucid and well arranged, sensible and moderate in argument, sober and reliable in judgement. The general view taken of the "Aes Grave" will certainly be assailed by some critics, who follow closely in the steps of Haeberlin; in the opinion of the reviewer it is essentially sound. The balance of evidence

is in favour of a date near 300 B.C. for its introduction: an earlier date solves no difficulties, but does create some. The interpretation of the "Aes Grave" by Haeberlin is extremely able, attractive, and ingenious: the fact that even so it fails to satisfy our sense of historical fitness can only be due to a fundamental error in his dates.

The few detailed criticisms which follow must not for a moment be supposed to affect the reviewer's very favourable opinion of the book as a whole.

The stamped "bricks" can hardly have been ingots prepared for conversion into coin (p. 18): the elaborate types alone make that unlikely. The statement of the value of the 'semi-libral' As and its relation to the denarius (pp. 33 ff.) is at best confused; there is really no evidence that the denarius originally equalled two pounds of bronze. A happier attempt at explanation is given in Note A (pp. 134 ff.). Haeberlin's theory of the decimal division of the semi-libral As is very rightly rejected (p. 33 f.). On p. 35 we read, "It may be suggested, however, that it (the reduction of weight) was not occasioned by state bankruptcy or by any financial crisis". This seems to betray an imperfect understanding of the whole question of reductions of bronze at Rome; all took place in times of exceptional stress. The arguments for placing the heavier "Romano-Campanian" series before the lighter are not convincing: it is not a question of heavy and reduced standards so much as of two alternative units, a heavier and a lighter, which probably existed at the same time but in different districts. It is noteworthy that the heavy didrachm with *obv.* head of Apollo, *rev.* free horse, is by its great likeness to the dated copper of Beneventum (after 268 B.C.) almost fixed to the Pyrrhic War. The reference of the Pegasus type to the "flying horse" figure-heads of Punic warships (p. 48) is very attractive. The estimate of the value of the As of the "Romano-Campanian" series as one-third of the didrachm is unconvincing. Mr. Sydenham attributes the small coins, which Haeberlin has termed half- and quarter-ounces of Rome, to the Campanian district, and makes them "Sextantes" and "Unciae" of a later date (p. 53). The great objection to this ingenious view is the presence on the reverse of the standard type of the capital, the prow. Whether the quincunx was "evidently reckoned as half an As" (p. 107) may be doubted: this was certainly not the case at Luceria, where we find semis and quincunx side by side. When we come to the types Mr. Sydenham very

wisely will not allow us to give imagination rein and find strange meanings in sun, moon, pentagram, or swastika. That there were suggestions and allusions present in many matter-of-fact types, which do not readily occur to us, he himself would probably be ready to admit.

We trust that many students will not rest until they have learnt to know this admirable book for themselves.

H. M.

VII.

GREEK COINS ACQUIRED BY THE BRITISH
MUSEUM IN 1925.

[SEE PLATES V, VI.]

IN the compilation of this report I have as usual had the benefit of Mr. Robinson's opinion.

Thurium.

1. *Obv.*—Head of Athena r. in crested Attic helmet, wreathed with olive; in front, above, **H**.

Rev.—**ΘΟΥΡΙΩΝ** above; bull l., head lowered, l. fore-leg raised; in exergue, fish l.

R ← 20.5 mm. Wt. 7.83 grm. (120.8 grs.). [PL. V. 1.]
From the Montagu Collection (Sale Catal., II, lot 26, where the **H** is not noticed, and the fish is described as a dolphin) and Massy Collection.

This is one of the series with sequence (?) letters described by Jörgensen in *Corolla Numismatica*, pp. 169 ff.; this particular letter seems not to have been published before.

Scythia. Eminakos.

2. *Obv.*—**ΕΜΙΝΑΚΟ** Heracles, nude, with lion-skin on head and falling down his back, kneeling r., stringing his bow, which passes under his l. knee, the cord passing above his l. thigh. In exergue, traces of inscription. Border of dots.

Rev.—Four-spoked wheel, with studded tyre, surrounded by four small dolphins, all in incuse square.

R 23 mm. Wt. 11.58 grm. (178.7 grs.). [PL. V. 2.]

From one of the three hoards of these staters, all of which have been found at Olbia, and nowhere else.

See Minns, *Scythians and Greeks*, p. 487: "The finding place, the reverse and the weight, apparently an Aeginetic stater"—the specimen described by him weighs 11.73 grm.—"suggest Olbia, but the make, with a shallow square, and the obverse (cf. Thasos, Head, *Hist. Num.*², p. 265), recall Thrace: the name looks as likely to be Irano-Scythic as Thracian: the style is late Vth century." Von Sallet also (*Z. f. N.*, iii, p. 133) inclined to a Thracian or Macedonian origin (the head of Heracles, he says, recalls that at Dicaea), but chiefly, it would seem, because no coins of similar style or of so early a date have hitherto been known to have been struck in the Olbian region. Head also (*Hist. Num.*², p. 283) inclines to a Thracian origin. I must confess that the evidence of provenance (no less than three finds in Olbia, and none anywhere else) is extraordinarily strong; and I also find it difficult to believe that the wheel with its studded tyre, a thoroughly Iranian fashion,¹ would be found in Thrace, whereas in Olbia, so subject to Iranian influence, it is not in the least surprising. It is unfortunate that the inscription in the exergue, which might settle the question, is visible only in the faintest traces, and its existence has not even been noticed by those who have published other specimens.

Apollonia Pontica.

3. *Obv.*—Head of Apollo r. laureate.
Rev.—ΑΘΗΝΑΙ on l. upwards. Anchor between A and crayfish. Slight incuse circle.
 R ↓ 24 mm. Wt. 16.94 grm. (261.4 grs.). [Pl. V. 3.]
 From Bulgaria.

¹ See my note on the studded wheel on the coins of Andragoras in *Atti e Mem. dell' Istituto Italiano di Numismatica*, iii (1919), p. 28, or *B.M.C. Arabia*, p. clivf.

Münsterberg, in his list of magistrates, gives **ΑΘΗΝΑ** . . . from a paper-impression of a tetradrachm seen by him, possibly the coin now published. The eye of Apollo is unfortunately disfigured by a cut, otherwise the coin is a good specimen of the somewhat weak style of the period (about the middle of the first half of the fourth century) at this mint.

Mende.

4. *Obv.*—**VOIA ΔVI[M]**† Mule, ithyphallic, standing r.; on his crupper, bird standing l., pecking at his tail; below, formal plant growing out of exergual line. Border of dots.

Rev.—Gyronny incuse.

.R 28.5 mm. Wt. 17.44 grm. (269.2 grs.). [Pl. V. 4.]

5. *Obv.*—Silenus, garment about lower part of body, looking l., reclining on mule r.; he holds in outstretched r. hand a kantharos; l. leg drawn up and lying along the flank of the mule; no thyrsus. In front, bird perched r. on vine. Exergual line to r. half only. Border of large dots.

Rev.—**ME[N] / Δ / [A]IO / N** Vine with interlaced branches and four bunches of grapes, in linear square. All in shallow incuse square.

.R ← 29 mm. Wt. 17.15 grm. (265.3 grs.). [Pl. V. 5.]

6. *Obv.*—Silenus, garment about lower part of body, reclining on mule r., both legs extended; his head, which is garlanded, looks to front; he holds in r. kantharos, in l. thyrsus over l. shoulder. Border of dots.

Rev.—**MEN / ΔA / IO / N** Vine with four bunches of grapes, boughs not interlaced, on raised but not outlined square panel. All in shallow incuse square.

.R → 25.5 mm. Wt. 17.59 grm. (271.4 grs.). [Pl. V. 6.]
From the same reverse die as Naville Sale, X, lot 409.

Scione.

7. *Obv.*—Male head r., wearing close-fitting helmet with low crest; between crest and bowl,
 ΠΡΟΤΕΣΙΛΑ

Rev.—ΣΚ in corners of incuse square, containing stern of galley.

Rt. ↓ 24.5 mm. Wt. 16.47 grm. (254.2 grs.). [Pl. V. 7.]
Brit. Mus. Quarterly, i, p. 24, no. 12.

Two specimens of this tetradrachm are in the possession of Captain Spencer-Churchill (one, from the Allatini Collection, weighs 16.81 grm., the other 16.93 grm.), and a fourth belongs to Mr. Empedocles. Both Captain Spencer-Churchill's specimens, like ours, have the ↓ die-position. The Allatini specimen was known to Svoronos, who, I am informed, read in the space between the crest and the bowl of the helmet the name ΠΡΟΥΞΙΑΣ retrograde. This reading of course was supposed to favour his attribution to Cius² of the coins, generally given to Scione. As a matter of fact, the reading of the name of Protesilas, which was very obscure before the cleaning of the new specimen, is absolutely clear.

According to Conon,³ Protesilaos, returning from the Trojan war with his prisoner Aethilla, sister of Priam, landed on the coast between the spots where Mende and Scione afterwards stood; and while he and his men went inland for water, Aethilla and the other

² Developed at length in *Journ. Int.*, xx (1922), pp. 55-86, but without knowledge of the Allatini tetradrachm.

³ *Narr.*, xiii (Westermann, *Μυθ.*, p. 129). See the discussion of the passage in U. Hoeffler, *Konon, Text und Quellenuntersuchung*, Greifswald, 1890), p. 62 f. Hoeffler concludes that the war in question was the first expedition against Troy under Heracles and Telamon.

women burnt his ships, forcing him to remain on the spot, where he founded Scione.

Babelon⁴ has already suggested that the helmet and head represented on the coins known to him are those of the "unknown Achaean hero, legendary founder of the town". Svoronos had come even closer to the identification, and would doubtless have reached it had he not been obsessed by his conviction that the coins belonged to Cius and not to Scione.

All three specimens that I have seen are from the same obverse die. The Allatini specimen's reverse is quite different, showing the three-legged sigma (as on the obverse), and a round pellet hanging in the air under the point of the aphiaston. Captain Churchill's other specimen is apparently from the same reverse die as ours. It is struck on an older coin, possibly, as Mr. Robinson suggests, an Athenian tetradrachm.

The details of the ship are puzzling. Mr. Cecil Torr, consulted on them, can give no certain explanation either of the rectangular construction under the aphiaston (a seat or shelter for the steersman?) or for the upright post ending in a spear-head (which is not likely to be, as on Egyptian ships, a post for working the steering-oar), or for the pellet on the Allatini specimen (hardly a shield, since it is completely detached). The spear-headed post is so far removed from the aphiaston that it cannot be a form of stylis. The *αίχμη* is so definitely indicated that I think it must be meant to denote the ship as that of a leader in war; possibly the type is meant to reproduce the ship in which Protesilaos arrived on the spot. There were

⁴ *Travé*, II. i, p. 1146.

probably relics of him at Scione; the representation of his helmet on the other coins suggests this. As Mr. Torr points out, if we have to do not with an actual ship but with a monument, objects might have been attached to it which would not be found on an actual ship. The grave and hieron of Protesilaos were at Elaius in the Thracian Chersonese, where he was represented standing in armour on the prow of his ship, as one of the coins of the place shows him.⁵

As to the pellet, I fancy it must be in the same category as the pellets which are found on many other early Macedonian coins, as at Lete and Olynthos. These have not been explained.

The treatment of the relief and of the eye suggest comparison with the earliest Athenian tetradrachms bearing the olive-leaves. If these are immediately after Marathon, the Scione tetradrachms can hardly be earlier. But they are not likely to have been issued before the removal of the Persian domination. The transition from the three-barred to the four-barred sigma is also against a very early date. I suggest therefore the period between 480 and the imposition of restrictions on the coinage of the allies by Athens.

Argos.

8. *Obv.*—Forepart of wolf, l.

Rev.—Large A



Iron \sphericalangle 25.5 mm. Wt. 14.33 grm. (221.2 grs.). [Pl. V. 8.] From Sotheby's Sale, Dec. 1, 1924, lot 153 (Kondylis Collection).

On these iron coins of Argos see the list by Svoronos in *Journ. Int.*, xiv (1912), p. 188, corrected by Regling, *ibid.*, xv (1913), p. 78. On the left of the field of the

⁵ Roscher, *Lex.*, iii. 3161.

reverse are certain marks which with imagination could be taken for a letter; but they are more probably accidental. The weight of the new specimen is exceptionally high, 12·80 grm. being up till now the highest recorded. Most specimens are much corroded, as is but natural considering that they are of iron; this, on the other hand, does not seem to have lost much from chemical action.

Eresus.

9. *Obv.*— $\text{QAVT} \cdot \text{KAIC} \text{ANTON}\epsilon\text{I}$  . Bust of Antoninus Pius r., laureate, undraped. Border of dots.

Rev.— $\text{QEP}|\epsilon|\text{C} \text{CANT}\Phi\Omega$. Head of Sappho r., hair tied in knot at back, the ends flying free. Border of dots.

Æ \uparrow 21·5 mm. Wt. 3·10 grm. (47·9 grs.). [PL V. 9.]

This coin, which was formerly in Mr. P. Thorburn's possession, shows a head of Sappho of the same type as on the very bad specimen of Commodus illustrated by Bernoulli, *Griechische Ikonographie*, Münztaf. i. 19. There is another specimen of this type, but from different dies on both sides, at Paris.

Ionian Electrum.

10. *Obv.*—Lion lying l., head reverted, in an oblong frame consisting of two parallel lines with short lines at right angles joining them.

Rev.—Three incuse impressions; in middle, oblong, a fox l., in front of which, three pellets; above, square, a stag's head l.; below, shaped to type, a saltire with pellets at ends of arms.

EL \rightarrow 22 \times 18 mm. Wt. 14·01 grm. (216·2 grs.). [PL V. 10.] From Rhodes or Southern Asia Minor.

The punches used for the reverse of this stater are not identical with those of the stater acquired in 1881, with the lion in the opposite sense, though the types of

them are similar (the stag's head on the older acquisition is to r. instead of l.). The obverse is very close to, if not from the same die as, the stater at Paris, *Traité*, p. 22, No. 17, Pl. I. 15. On the reverse of the latter two of the punch-marks—fox and saltire—seem to me to be the same as those already mentioned, although Babelon says of the central rectangle that it contains "des symboles indistincts parmi lesquels on a voulu reconnaître la silhouette d'un lièvre, des feuilles et un globule". A cast which I owe to M. Jean Babelon shows that Babelon's No. 18, which he describes as "autre exemplaire" of his No. 17, is really quite different, and is, in fact, described by him correctly and illustrated in his No. 42, Pl. II. 5. His No. 19, the Greenwell stater (*Num. Chron.*, 1897, Pl. XI. 17; Regling, *Slg. Warren*, 1710) has the stag's head, fox and saltire punch-marks, of which the first at any rate is from the same die as on our coin of 1881. Another stater of the same kind was in the Egger Sale, XLVI, lot 977; the punch-marks are described as a fox, a rosette (i.e. the saltire), and two monograms (?); from the illustration this last would seem to be similar to the mark on the smaller denominations, i.e. ∇ .

To Babelon's list (Nos. 20-22) of the smaller denominations corresponding to our new stater must be added:

Pozzi Sale, 2464. Wt. 4.66 grm.

" 2465. Wt. 2.33 grm.

Sotheby's Sale, May 2, 1905, lot 51. Wt. 2.36 grm.

Samos.

11. *Obv.*—Lion's scalp.

Rev.— Σ ΕΙΡΑΝΔΡΙΔΗΣ above; forepart of bull r., ornamental band round shoulders; behind, olive-

branch; in front, ΣA ; below, small bee. All in incuse square.

At ↓ 25.0 mm. Wt. before cleaning, 15.14 grm. (233.6 grs.). Now 15.06 grm. (232.4 grs.). [PL. VI. 11.]

One of the group of Rhodian tetradrachms, B.M.C., Nos. 130-135, dated by Head c. 394-365 B.C.; it is unusual in having a small symbol under the bull. The magistrate's name is apparently incomplete by the first letter; there might even be room for more than one; but none of the derivatives given by Pape-Benseler and Bechtel fits, and I can make no certain suggestion. *Πειρανδρίδης* occurs to me, and Mr. M. N. Tod informs me that he thinks it as likely as anything.

Cos.

12. *Obv.*—Head of Asklepios r. laureate.

Rev.— ΚΩΙ ON across field; coiled, bearded serpent, head reared to r.; below, on ansate tablet, ΑΙΣΧΡΙΩΝ ; below that, filleted thyrsus (?), horizontally with head r.; in field L, Μ . Pearled border.

At ↑ 19.5 mm. Wt. 5.51 grm. (85.1 grs.). [PL. VI. 12.]

This coin (a reduced Rhodian didrachm?) appears to belong to the period 88-50 B.C., and to correspond to the smaller denominations with the coiled serpent (B.M.C., *Caria*, p. 212, Nos. 192 f.). A magistrate, Aischrion, issued bronze coins in the period 300-190 B.C. (*ibid.*, p. 202, No. 86), but this coin can hardly be so early. The object on which the magistrate's name is inscribed may be not a tablet but, as the lack of stiffness in its outlines suggests, a cushion. The head of the object below is obscure, so that it may not be a thyrsus, and its foot seems to be joined to the tablet or cushion, but that may be due to a flaw in the die.

Cyprus.

The collection has been considerably strengthened by a large selection from the cabinet of Col. Massy, whose death, which occurred not long after the purchase, will be deplored by all who are interested in Cypriote numismatics.⁶ The following coins from this collection, not already published, may be mentioned :

Citium. Pumiathon.

13. A gold stater (from the Bunbury Collection, lot 406) of the usual types, with the date $\overline{\text{III}}$; the sign like a retrograde **F** is a form of 20, i.e. a duplication of the sign $\overline{\text{I}}$ for 10; the numeral is more usually written z . Wt. 4.11 grm. (63.5 grs.). [Pl. VI. 13.]

Paphos.

14. *Obv.*—Human-headed bull (the river Bokaros?) kneeling r., head reverted; above α Δ , in exergue Θ/Θ Cable border.
Rev.—Astragalos, between Φ on l., \ddagger on r. Concave field.
 R (plated) \leftarrow 16 mm. Wt. 3.87 grm. (59.8 grs.). [Pl. VI. 14.]

The signs above the bull seem to me to be meant for *vo-ko* or *vo-ro* (the same form is found for *ro* and *ko* at Paphos). In the exergue we have apparently *mo*; the signs to the left of it I cannot explain at all. On the reverse, *pa* or *ba* is certain. The other sign so exactly resembles Greek *phi*, and the prolongation of the straight line on both sides of the circle is so unlikely in a Cypriote *mo*, that I venture to suggest that the engraver really meant to represent the syllable $\phi\iota$, making with the other sign the name $\Pi\alpha\phi\iota$.

⁶ The following coins, already described in B.M.C., *Cyprus*, are among those thus acquired: Pl. XVIII. 1; XIX. 10; XX. 6, 7; XXI. 8; XXII. 5; XXIII. 1, 2, 6, 12, 13, 14, 19; XXIV. 3, 7, 13, 17, 20, 24; XXV. 4, 8; XXVI. 1, 2.

Salamis.

15. It may be mentioned here, with reference to the bronze coin with Colophonian types (laureate head of Apollo three-quarters l, *rev.* EYA and lyre, described in B.M.C., p. cvii, note 3, where I said that I thought it was more probably Colophonian than Cypriote), that another specimen, shown at the British Museum on Jan. 25, 1926, was also found in Cyprus, and the attribution to Euagoras II is thus confirmed. The Massy specimen, now in the Museum, is illustrated in Pl. VI. 15.

Cyprus under the Diadochi.

Among Col. Massy's coins found in Cyprus were three bronze pieces :

16. *Obv.*—Anchor. Border of dots.

Rev.—Double axe. Plain border.

Æ → 14.0 mm. Wt. 3.38 grm. (52.2 grs.).

Æ ↓ 14.0 mm. Wt. 2.87 grm. (44.3 grs.). [Pl. VI. 16.]

Æ ↑ 14.5 mm. Wt. 2.55 grm. (39.4 grs.).

The two lighter specimens have a slightly concave field on the reverse. The double axe suggests an attribution to the time of Demetrius Poliorketes.

Of Cypriote coins acquired from other sources I note the following :

Amathus. Epipalos.

17. *Obv.*—Lion lying r.; above, eagle flying r.; double exergual line, below which a vertical line. No inscription visible. Border of dots.

Rev.—Forepart of lion r. Below, inscr. *E-pi-pa-lo* (retrograde, only the sign for *pa* being quite clear); behind, sign for *i* (?) or *ku* (?), according as it is read inwardly or outwardly. Plain border.

Æ ← 20 mm. Wt. 6.55 grm. (101.1 grs.). [Pl. VI. 17.]

I take this opportunity of correcting the description of No. 17 of Amathus in the British Museum Catalogue. This stater is, I think, from the same dies as

one published by Perdrizet (*Rev. Num.*, 1898, p. 208, No. 2) and by myself (*B.M.C., Cyprus*, Pl. XVIII. 11). The legend is therefore not divided between the two sides of the coin; in fact, on the obverse, the first three signs have been obliterated by a flaw in the die which is responsible for the (imaginary?) crescent; and on the reverse I can now see the sign for the fourth syllable, $\lambda\omega$.

In connexion with a remark on p. xxv of the Catalogue, as to the evidence of provenance, I may now say, on the authority of the late Sir Henry Gould-Adams, that the larger silver coins attributed to Amathus are actually often found near that site.

Lapethus.

18. *Obv.*—Head of Athena r., in Attic helmet; eye full, hair dotted. Behind, traces of inscription, or flaws (?).

Rev.—Head of Athena r., in Corinthian helmet; eye full, hair dotted. Behind, Phoenician inscr. $\gamma\lambda\gamma\tau\theta$. Incuse square. Chisel-cut.

R \uparrow 22 mm. Wt. 10.97 gm. (169.3 grs.) before cleaning; 10.91 gm. (168.3 grs.) after cleaning.
[Pl. VI. 18.]

The inscription baffles me, and Mr. Stanley Cook is unable to suggest any definite reading. There is probably one letter lost at the beginning.

19. Paphos. Onasioikos (?).

Specimens have been acquired of the staters illustrated in *B.M.C.*, Pl. XXII. 1-3. Unfortunately they do not advance the solution of the problem of these pieces. Of the three, that similar to *B.M.C.*, Pl. XXII. 1, is from different dies, the two signs on the obverse being transposed. The others are from the same dies as the specimens already illustrated. It may be remarked

that the two Hunter staters, B.M.C., Pl. XXII. 3 and 4, are from the same obverse die. [Pl. VI. 19.]

Syria. Seleucus III.

20. *Obv.*—Head of Seleucus r., diademed. In the hair, above the diadem, two laurel-leaves. Border of dots.

Rev.—**ΒΑΣΙΛΕΩΣ** on r. downwards, **ΞΕΛΕΥΚΟΥ** on l. downwards. Apollo seated l. on omphalos, holding three arrows in r., l. resting on bow; at his feet, grazing horse; in field l., above ⌚ below ⌚ Border of dots.

R ↓ 26.5 mm. Wt. 15.98 gm. (246.6 grs.). [Pl. VI. 20.]
From Naville's Sale, X, lot 906.

21. *Obv.*—Same die as preceding.

Rev.—Same die as preceding, but for second monogram has been substituted **ΑΡ**

R ↓ 26 mm. Wt. 16.96 gm. (261.8 grs.). [Pl. VI. 21.]
From Naville's Sale, X, lot 942, and E. F. Weber Sale, Hirsch XXI, lot 4048.

One of these has been attributed to Seleucus II; but the seated Apollo, coupled with the **ΕΥΞ** monogram, seems to indicate rather Seleucus III. The slight convexity of the field in the neighbourhood of the variant monogram in the second coin shows that the die of the first was cut away to re-engrave the monogram. But the most interesting feature of the coins is on the obverse, where the two leaves in the hair seem to belong to an earlier type of a laureate head. That the die has been reworked is evident from the marks in the field on the side in front of the head, which are identical on both coins. But what the original type on the die was it is difficult to guess. But it is possible that it was the Zeus head of **ΞΕΛΕΥΚΟΥ-ΑΝΤΙΟΧΟΥ** tetradrachms with the elephant quadriga on the reverse—also struck in one of the Eastern mints.

Syria. Antiochus V.

22. *Obv.*—Head of Antiochus r., diademed; behind, monogram Λ . Border of dots.

Rev.— Θ ΒΑΣΙΛΕΩΣΑ[ΝΤΙΟΧΟΥ] ΕΥΠΑΤΟΡΟΣ
Eagle with closed wings standing l. on thunderbolt; between legs, monogram Λ ; in field l., palm-branch. Border of dots.

R \uparrow 27.0 mm. Wt. 13.45 grm. (207.6 grs.). [PL. VI. 22.]
Phoenician tetradrachm. From Col. Massy's Collection; purchased at Tyre.

Macdonald has published[†] a plated coin in the Berlin Cabinet similar to this in all details except the monogram between the eagle's legs, which is composed of the letters **HP**. He observes that it is a forerunner of the Phoenician coinage which begins regularly twelve or fourteen years later under Alexander I. He also observes that the monogram of **AB** on the obverse is found on bronze of Seleucus IV and tetradrachms of Antiochus IV with the seated Zeus; and that the monogram of **HP** combined with palm-branch appears on the reverse of tetradrachms of Antiochus IV with seated Zeus, and the monogram alone on the reverse of tetradrachms of Demetrius I and Laodike. The **HP** monogram, I may add, is found on the reverse of one of the tetradrachms of Antiochus V with the infant head (Hirsch Sale, XXV, No. 2901), and on another with the older head and seated Zeus (Ward Coll., 787). As to the **ΑΓ** monogram of our coin, it occurs in the exergue of seated Zeus tetradrachms of Antiochus V (O'Hagan Sale, 664, ex Montagu, and Naville Sale, X, 1057).

Egypt. Tachos.

23. *Obv.*—Head of Athena r. in crested Athenian helmet adorned with three olive-leaves.

[†] *Z. f. N.*, 29. 95.

Rev.—**TAΩ** on r. downwards. Owl standing r., head facing; behind, papyrus plant. All in incuse square.

N ← 15.5 mm. Wt. 8.30 grm. (128.1 grs.). [Pl. VI. 23.]
Said to have been found at Memphis. Presented by Mr. C. S. Gulbenkian. *Brit. Mus. Quarterly*, i, p. 24, no. 13.

This stater, of daric weight, and obviously a free imitation of Athenian silver of the early fourth century (after the archaic treatment of the head had been discarded), bears the name of the Egyptian Pharaoh Tachos or Taos² instead of the usual **ΑΘΕ**, and a papyrus plant in place of the olive-spray and crescent.

The somewhat pitiful part played by Tachos in the great revolt of the Satraps in 361 B.C. is well known.³ With an army of Greek mercenaries under King Agesilaos of Sparta, and with the Athenian Chabrias in command of his fleet, he advanced into Syria. Meanwhile a mutiny broke out in favour of Nectanebo II, a cousin of Tachos, and Tachos, deserted by Agesilaos, fled and submitted himself to Artaxerxes. This happened probably during the second half of 361 B.C. Nectanebo himself was called back to Egypt, owing to an insurrection there, and took Agesilaos with him. Thanks further to the treachery of Orontes and his lieutenant Rheomithres the revolt collapsed all along the line.

² The Greek MSS. seem to vary between *Ταχός*, *Ταός*, and the form used on the coin, *Ταός*. Dr. H. R. Hall informs me that the Egyptian form is to be transliterated *Žehō*.

³ The most recent account is that by Schur in *Klio*, **xx** (1926), pp. 281-8; but that by Judeich in his *Kleinasiat. Studien*, pp. 164 ff., should still be consulted.

The stater—so far as is known to me, the only one found hitherto—must be a relic of the money coined by Tachos to pay his mercenary army.¹⁰ In its weight, that of a daric, not of an Attic stater, it corresponds to the most widely prevailing currency of the time. The daric was the customary soldier's pay for a month; Cyrus the Younger, it will be remembered, increased it by a half when he wanted men.¹¹

The coin is important, both for its historical interest, and also as the earliest coin, in the proper sense of the term, which we know to have been officially issued in Egypt. This does not of course exclude the possibility that large numbers of coins of Attic type, with nothing obviously betraying their non-Attic origin, may have been made in Egypt.¹²

I take this opportunity of calling the attention of those interested in such subjects to the fact that the authenticity of the much discussed gold coins bearing hieroglyphic signs is vigorously defended by M. Émile Chassinat in *Recueil des Travaux*, xl (1923), pp. 131–57. Maspero, it will be remembered, originally attributed the first specimen which came on the market to Tachos, if genuine.¹³ The examination of twenty-seven out of about thirty-eight said to have been found in the winter of 1919–1920, as well as of the two previously known specimens, has convinced M. Chassinat of their genuineness. The article contains much valuable information; for instance, that the weights range from

¹⁰ On the subtleties used by Tachos, at the instigation of Chabrias, to raise money for his campaign, see Pseudo-Arist., *Oeconom.*, ii. 25; Polyænus, *Strat.*, iii. 5.

¹¹ Xen., *Anab.* i. 3. 21.

¹² Cp. *Num. Chron.*, 1922, p. 168.

¹³ *Rec. des Travaux*, 1900, p. 225.

8.15 to 8.55 grm. (one exceptional piece, defectively struck, is however 8.90 grm.). It is unfortunate that, having the opportunity, M. Chassinat did not weigh them all; numismatists would be the more ready to respect his opinion. The weights actually recorded by him (from the best preserved specimens, and from four communicated by MM. Feuarent), adding those mentioned in a foot-note below, are 8.02, 8.15, 8.18, 8.20, 8.35, 8.36 (2), 8.37, 8.39 (2), 8.42, 8.46, 8.47, 8.90 grm. As to the date of issue, M. Chassinat decides very definitely for the period 404-342 B.C. Their weights, he says, belong quite clearly to the Persian standard, the daric weighing theoretically from 8.35 to 8.42 grm. He is apparently unacquainted with Regling's study of the daric standard, and bases his remarks on the twenty-four darics in Babelon's *Perses Achéménides*. However, taking Regling's normal weight of 8.4 grm., it is a little surprising that out of fourteen specimens, of which the weights are now known (fifteen, if we add the Damanhur specimen), no less than four (five) are well above the supposed norm of the daric and nine (ten) above the average! The conclusion seems to lie to hand that what the people who made these coins were really aiming at was not the Persian but the Attic standard; that they had in mind the gold staters of Philip II or Alexander III, to which, as M. Chassinat himself observes, they conform in module; and that a date so early as M. Chassinat proposes is not very probable.¹⁴

¹⁴ Cf. *Rev. Num.*, 1925, p. 238 (report by Blanchet of communication to the French Academy by Ed. Naville), and *C. R. de l'Acad.*, 1925, pp. 278-86 (M. Naville's communication). M. Naville accepts the pieces as authentic, but regards them as stamped bullion rather than coins properly speaking.

Into his other observations on questions of Egyptian currency, very valuable in themselves, I cannot enter here; but I have felt bound to refer to his apologia, since what he calls my "condemnation without appeal" is the text on which he bases his article.¹⁵

Axum.

24. *Obv.* ΟΟΥΘΑΝΑΒ ΑΙΑΥ C Crowned and diademed bust r., between two ears of corn, holding sceptre in r. Above, interrupting legend, ☉. Border of dots.

Rev. ΟΑΞΩΜΙΤΩΝΒΙ CΙΤΙCΕΝΕ Bust r., wearing round cap and diadem, between two ears of corn, holding branch in r. Border of dots.

N ↑ 17 mm. Wt. 2.56 grm. (39.5 grs.). [Pl. VI. 24.]

The name of this king seems to be new. If the third letter is a sigma, and it is difficult to read it as anything else, we get *Ousarvas*, a name with the same

¹⁵ What I really did in *Num. Chron.*, 1900, p. 371 (not 377), was not to condemn without appeal the first specimen which appeared, but to say that nearly all, if not all, the numismatists who had seen the coin agreed in condemning it, and to mention some among the many objections to its genuineness. I should be the last person to claim that there could be no appeal from my judgement, since I know better than any one else how many mistakes are chargeable to my account. "If", as a dealer once said to me, "people will not buy these coins until you say they are genuine," I can only be sorry for dealers and purchasers for not having an opinion of their own.—As I write this the *Revue Numismatique* with the note above cited comes to hand, also Dr. Münsterberg's publication of a specimen which the Vienna Cabinet was fortunate enough to acquire in 1921 at metal value (*Num. Zeit.*, 58, 1925, p. 33, Pl. 12, No. 13). It weighs 8.02 grm.; and he mentions the specimen at Berlin (8.15 grm.), and one in the Naville Sale, X, 1618 (8.18 grm.). The Berlin specimen, according to M. Chassinat (p. 131), was found at Mit Rahineh, in 1910. Münsterberg adds that the majority of inquirers favours the authenticity of the coins: Blanchet, Dattari, Dressel, Regling, Svoronos, and the Egyptologists Chassinat and Maspéro, to whom we may now add Naville.

termination as the already known Ezana. In a British Museum papyrus of the seventh–eighth century, containing a very miscellaneous assortment of names of various nationalities, occurs the name *Ὀὐσζανά* (genitive),¹⁶ which may possibly be the same.

In the lists of kings of Axum I find only the name "awsinā" ("awsēnā", "aūsena")¹⁷ at all approaching that on our coin; it is for a philologist to say whether there is any connexion between the two.

The lunar symbol indicates that this coin is of the heathen period; the style suggests also that it precedes those of Ezana, in whose reign the transition to Christianity seems to have taken place. The reverse inscription adds Tisene to the series of puzzling words which are found combined with Bisi, such as Ḥalēn, Dimēlē, Dachy (Littmann, in *Deutsche Aksum-Expedition*, i, p. 47).

In a large find of small copper Roman coins recently made in Egypt, and shortly to be published by Messrs. Milne and Mattingly, two Axumite copper coins were present, and have since been given to the Museum by the British School of Archaeology in Egypt. The deposit was buried some time in the reign of Zeno (A.D. 477–491), for it contained about a score of coins of that Emperor, and a large number of Leo. The two Axumite coins were one of Ezana with the type of the ear of corn, similar to that published in *Num. Chron.*, 1917, p. 28, Pl. III. 9, and weighing 0.54 grm. (8.4 grs.); and one of the anonymous **ΤΟΥΤΟ ΑΡΕΧ ΤΗ ΧΩΡΑ** series, weighing

¹⁶ Preisigke, *Namenbuch*, from Lond. iv, 1447.

¹⁷ Conti Rossini in *Journal Asiatique*, July–Dec. 1909, p. 288, No. 24; p. 297, No. 22.

0.59 grm. (9.1 grs.). Both were well worn, and had probably seen at least fifty years of circulation. The coins are so small (11.5 and 10 mm. respectively) that they are not likely to have circulated with Roman coins before about A. D. 400. The dates of Axumite coins are so obscure that even so vague an indication as this find affords seems worth putting on record.

On the point of going to press, I am informed by Signor Anzani that a specimen of the aureus of Ousanna, differing considerably from the above, is in the Paris collection, and has been published by Kammerer, *Essai sur l'histoire antique d'Abyssinie*, 1926, pp. 156-7, Pl. XX, no. 2. This book has not yet reached the British Museum.

GEORGE F. HILL.

NOTE.

Further examination of the Scione tetradrachms in Mr. Churchill's collection makes it apparent that his second specimen is not from exactly the same dies as either of the others.—G. F. H.

VIII.

AEGEAN MINTS.

[SEE PLATES VII, VIII.]

It is no longer needful in these days to emphasize the fact that as much may often be learnt from the typeless incuse squares of Greek coins as from their more decorative obverses. No apology is, therefore, required for the present attempt to suggest a new, or partially new, grouping based on incuse squares of some of the issues emanating during the seventh and sixth centuries B.C. from the islands and shores of the Aegean Sea.

Three main groups can be distinguished, which I would propose to call (a) the Aeginetan Group, (b) the Delian Group, (c) the Coan Group.

a. THE AEGINETAN GROUP.

The coinages of Aegina itself, initiated not improbably by Pheidon of Argos,¹ supplied the prototype, since the very earliest Aeginetan "turtles" were struck on their reverses with a square punch which was marked by cross-lines arranged roughly in a "Union Jack" pattern.² This pattern is complete only on a few well-struck specimens, for triangles

¹ Cf. P. N. Ure, *Origin of Tyranny*, pp. 154 ff., and my *Athens, its History and Coinage*, p. 119; also H. T. Wade-Gery in *Camb. Anc. Hist.*, iii, p. 540.

² Sometimes, instead of four intersecting lines, we find only three (e.g. PL. VII. 1, 5, 10, 11), but there are generally four lines, and therefore eight triangular compartments.

tended to break out of the punch-die, which then produced on the coin a design consisting of sunk and raised triangular compartments. But raised compartments were not originally intended to be part of the design.

This, which we may call the "Union Jack incuse", characterizes as regards fabric the whole Aeginetan Group.

To this Group belong issues of the following states:

- (i) Aegina [Pl. VII. 1],³ type turtle.
- (ii) Athens, the pre-Solonian coins of Pheidonian weight [Pl. VII. 2],⁴ amphora.
- (iii) Siphnos [Pl. VII. 3],⁵ eagle.
- (iv) Seriphos [Pl. VII. 4],⁶ frog.
- (v) Ceos, coins of its three cities,
 - Carthaea [Pl. VII. 5],⁷ wine-jar.
 - Coresia [Pl. VII. 6],⁸ cuttle-fish and dolphin.
 - Iulis [Pl. VII. 7],⁹ grapes and dolphin.
- (vi) Corinth, the first issue [Pl. VII. 8],¹⁰ Pegasus and φ.

Cogent arguments are not wanting¹¹ for the attribu-

³ The specimen figured, from my collection, weighs 12.15 grm. (187.5 grains).

⁴ The Boston coin = my *Athens*, p. 151, no. 6 a. The arguments for this attribution, which is still in dispute, but to which I adhere, are set out *l. c.*, pp. 6 ff.

⁵ B. M. C., *Crete, &c.*, no. 1.

⁶ Brit. Mus.; cf. *Num. Chron.*, 1898, Pl. IX. 1.

⁷ Copenhagen; Seltman, *Athens*, p. 13, Pl. XXIV. 1.

⁸ B. M. C., *Crete, &c.*, p. 93, no. 48.

⁹ Imhoof-Blumer, *Griech. Münz.*, Pl. I. 32.

¹⁰ B. M. C., *Corinth*, no. 1, Pl. I. 1; cf. also *Cat. Jameson*, iii, Pl. CXII. 2082.

¹¹ Types i and vi are universally regarded as Aeginetan and

tion of each and all of these issues to the mints specified. These states, moreover, are all close to and their territories within sight of Aegina.

But there are no fewer than five other issues of this characteristic Aeginetan fabric, coins all of them stamped with "Union Jack" incuse squares, which were in all probability struck within the same region. They have the following types:

- (vii) Two dolphins swimming in opposite directions [Pl. VII. 9, 10, 14],¹² didrachms and drachms.
- (viii) Male figure riding on dolphin [Pl. VII. 13],¹³ drachms.
- (ix) Goat kneeling, looking back, over dolphin [Pl. VII. 11],¹⁴ didrachms.
- (x) Cock [Pl. VII. 12],¹⁵ didrachm.
- (xi) Apple [Pl. VII. 17],¹⁶ didrachm.

Types vii, viii, and ix I would propose to attribute to Megara. We begin with type vii. Two dolphins swimming in opposite directions occur both on fourth-century coins of Megara struck under Aeginetan influence [Pl. VII. 15],¹⁷ and on copper of the third

Corinthian respectively. For ii cf. Seltman, *l. c.*, Chap. II; for iii, Babelon, *Traité*, i, col. 1305 ff.; for iv, Svoronos, *Journ. Int. d'Arch. Num.*, 1898, pp. 205 ff.; for v, Seltman, *l. c.*, p. 13, and Imhoof-Blumer, *Griech. Münz.*, pp. 12 ff.

¹² Pl. VII. 9, Brit. Mus., 12.26 grm. (189-2); 10, Boston, Regling, *l. c.*, no. 971; 14, Berlin, 6.07 grm. (93-7).

¹³ My collection, 6.0 grm. (92-6), formerly Sir H. Weber Coll. Another, same dies, in B.M.; cf. Babelon, *Traité*, i, Pl. XVIII. 2.

¹⁴ B. M. C., *Crete, &c.*, no. 1.

¹⁵ B.M., 12.31 grm. (190-0).

¹⁶ My collection, 12.02 grm. (185-5).

¹⁷ B.M., 1.91 grm. (29-5), Diobol; cf. *Num. Chron.*, 1893, pp. 5, 10. The reverse may be compared with Aeginetan "tortoise" coins

century B.C. [Pl. VII. 18],¹⁸ which bears the Ethnic ΜΕΓ. True, on these later pieces the creatures are placed with their backs away from one another, instead of one above the other as on the seventh-century coins [Pl. VII. 9, 10, 14], but this is no more than a symmetrical adaptation of the original design.

The drachma of this early two-dolphin issue has an incuse square measuring 8×8 millimetres, and this measurement is identical with that of the incuse square on the reverse of the drachma depicting a male figure riding upon the back of a dolphin.

This brings us to type viii, which it would seem represents a Megarian hero, Melicertes-Palaemon, who, though he lay buried on the isthmus in Corinthian territory, had met his fate on the shores of the Megarid. In his guide to the latter district Pausanias (i. 44. 7 and 8) has the following account: "Of the Molurian rock it is told how Ino flung herself from it into the sea with her younger son Melicertes in her arms . . . but the boy, it is said, was landed on the isthmus of Corinth by a dolphin: his name was changed from Melicertes to Palaemon. . . . The Molurian rock was deemed sacred to (Ino-)Leucothea and Palaemon." And Plutarch (*Quaest. Conviv.*, v. 3. 1) confirms this, stating that the spot was near Megara and was known as the Path of the fair Damsel, because

like B. M. C., *Attica*, Pl. XXIV. 10, struck after 404 B.C. For the correct dating of these coins cf. Earle Fox in *Corolla Num.*, pp. 34 ff. As to Megarian, Aeginetan, and Argive co-operation in the seventh century B.C. cf. H. T. Wade-Gery, *Camb. Anc. Hist.*, iii, p. 541.

¹⁸ B. M. C., *Attica*, Pl. XXI. 11. This and contemporary Aeginetan coppers have much in common; cf. *l.c.*, Pl. XXI. 10-13, Pl. XXV. 10, 14, and Pl. XXVI. 2, 3.

Ino had rushed down it with her child in her arms to plunge into the sea.

Just as the drachmae with two dolphins and with Palaemon were struck with punches of identical dimensions, so was the didrachm depicting a kneeling goat over a dolphin marked on its reverse with a punch corresponding exactly in size (10×8 millimetres) to the punch which was employed to strike some of the didrachms depicting two dolphins [cf. reverses of Pl. VII. 10 and 11]; on technical grounds, therefore, types vii, viii, and ix may well be thought to have emanated from one and the same mint.

Indeed, the goat of type ix may well be a creature of the Megarid. That barren country could support little but herds of goats, though in this respect it was not unique. Apart, however, from that it was the home of an important goat-legend associated with the hero Melampus¹⁹ of Aegosthena, upon a late coin of which township there appears a goat suckling an infant.²⁰ Melampus, "the black-foot", was once, there is reason to believe, a goat-deity of the Megarid, and the goat, as much as the dolphin-rider, is a type appropriate to that state.

If it be thought strange that the Megarian mint should, within a short space of time, have issued coins stamped with three different types, it is at least possible to find a contemporary parallel in the mint of her Athenian neighbour, where a civic type, the oil-amphora of Athens, first appeared on the coinage and was

¹⁹ A. B. Cook, *Class. Rev.*, 1894, pp. 381 ff., and cf. Sir J. G. Frazer, *Comm. on Pausanias*, vol. ii, p. 544 f., for summary of A. B. Cook's arguments concerning this goat-deity.

²⁰ B. M. C., *Attica*, Pl. XX. 10.

followed by the devices of aristocratic clans²¹ such as the Alcmaeonidae, and, possibly, the Eteobutadae. Consequently, should the coins in question be Megarian, it might be assumed that the dolphins were the device of the Megarian state, while Melicertes and the goat were the blazons of individuals whose families may have ranked Melicertes or Melampus among their ancestors.

Theagenes, tyrant of Megara between 630 and 600 B.C., execrated though his memory was by the poet Theognis, made the state prosperous; but faction fights following his overthrow so weakened the commonwealth that the Athenians, led probably by Peisistratus,²² were able to annex Salamis about 570 B.C. Deprived of that island Megara sank at once to a position of hopeless inferiority, unable to compete either with the industry of Attica or with the mercantile energy of Corinth. After 570 B.C. Megara was never in circumstances sufficiently affluent to call for an issue of money until, after 404 B.C., her old friend Aegina was rehabilitated and her old foe Athens humbled. Then and then only could she issue a coinage once more [Pl. VII. 15] based upon the Aeginetan models of that day.²³

The "dolphin" coinage of three types (pair of dolphins, dolphin-rider, goat over dolphin), which I would attribute to Megara, must therefore be dated between 630 and 570 B.C., preferably between 610 and 570 B.C. What symbolism, if any, is conveyed by the pair of dolphins escapes our present knowledge, and

²¹ Seltman, *Athens*, pp. 20 ff.

²² *I. c.*, p. 30.

²³ E. g. B. M. C., *Attica*, Pl. XXIV. 10. See foot note 17, above.

one can say no more than that it would have been at least an appropriate way of symbolizing the double sea-trade, westward and eastward, which flowed in the days of her brief prosperity from her two ports, Pagae and Nisaea, to her daughter cities in the Sicilian and Propontic seas. Further, the coin-types of her two most important eastern colonies, Cyzicus and Byzantium, were not, it seems, uninfluenced by the "fishy"²⁴ types of the mother-city. Already by 600 B.C. Cyzicus²⁵ had begun her "tunny-coinage" of electrum, on some of the very earliest specimens of which²⁶ appear two tunnies swimming in opposite directions. Later the Cyzicene tunny beneath the larger type reminds one of the dolphin beneath the goat on our Megarian coin. As for Byzantium, beneath the feet of the bull upon her coinage a dolphin regularly appears.

Type x, the didrachm with the device of a cock [Pl. VII. 12], is a piece which must continue to rank at present among coins of uncertain mintage. Nevertheless its home should be sought within easy reach of Aegina. It bears the characteristic "Union Jack" punch-mark, and a glance at the map (Fig. 1) shows the close proximity to one another of all the states which copied the Aeginetan mint technique; states among which even Corinth is to be reckoned, since her first coins, though not of Pheidonian weight, were, as has often been pointed out,²⁷ of Aeginetan technique

²⁴ Zoologically it is wrong to call a dolphin "fishy", but such a distinction was not patent to the ancients.

²⁵ H. von Fritze in *Nomisma*, vii, p. 27 f., has established the date of the beginning of this coinage.

²⁶ *Op. cit.*, Pl. I. 14, 15.

²⁷ E. g. *H. N.*³, p. 400, line 5 ff.

and marked with the "Union Jack" punch [Pl. VII. 8]. For the coin with the cock there has been suggested, as far as I am aware, one mint alone, Carystos,²⁸ this suggestion emanating from H. P. Borrell, the original owner of the Santorin Find, whence the specimen [Pl. VII. 12] is derived. Carystian the



FIG. 1.

- | | |
|-------------------|----------------|
| A = Aegina. | M = Melos. |
| AST = Astypalaea. | MEG = Megara. |
| ATH = Athens. | N = Naxos. |
| C = Ceos. | P = Paros. |
| CA = Caunos. | Q = Corinth. |
| CN = Cnidus. | S = Siphnos. |
| D = Delos. | SE = Seriphos. |
| I = Ialysus. | T = Tenos. |
| K = Carystos. | TH = Thera. |
| | X = Camirus. |

coin may be, but in favour of this attribution only two points can be advanced. Firstly, Carystos is sufficiently close to the other states employing the Aeginetan technique to have adopted the same style

²⁸ *Num. Chron.*, 1884, p. 270. Catal. Sotheby, March 23, 1896 p. 48, 372 (Montague Sale), follows this suggestion.

of coinage; secondly, the cock was the city's device on coins of the sixth to fourth centuries B.C. The cock is here a canting type, *καρύσσειν* suggesting on occasion "to crow".²⁹ Later Carystian coins are Euboic, not Pheidonian in weight; but if this fact be used as an argument against attribution of the cock didrachm to the Euboean city, it can be met by citing the case of Athens, which abandoned in 594 B.C. Pheidonian for Euboic weight.

If the evidence for ascribing this coin to Carystos is not strong, there seems anyhow to be no sound reason for controverting the attribution.

There remains type ix, which has on the obverse an apple [Pl. VII. 17], while the reverse of this, the only piece extant as far as I know, has suffered a certain amount of mutilation. Enough, however, remains to make it certain that the incuse is of the "Union Jack" type. The coin is a didrachm of Aeginetic (12.02 grm., 185.5 grains), not of Milesian weight; nevertheless this didrachm would seem to be the earliest issue of Melos, which later abandoned the Pheidonian for the Milesian standard.

The sixth-century coins of Melos have, with one exception, a quince³⁰ as their device, but that one exception, a unique piece in Berlin [Babelon, *Traité*, i, Pl. LXII. 10], stands midway between our coin and the quince pieces, for while it has the weight of the latter, its type is an apple exactly on this earliest coin.

²⁹ *Anth. Pal.*, 5. 3; cf. also Aristoph. *Eccl.* 30; and Suidas *κῆρυξ*, ὁ ἀλεκτρούων.

³⁰ A separate group is that of the pieces with the vase (Babelon, *Tr.* i, Pl. LXII. 8, 9). But I am considering only the pieces with fruit on their obverses.

The Greek "herald" was no botanist, and the canting-type, a *μηλον*, appropriate to the island, might be any fruit to which the term *μηλον* was applied as it was either to the apple or the quince.

Melos, the southernmost isle of our group, began, it seems, by coining on the Pheidonian standard under the direct commercial influence of Aegina.

b. THE DELIAN GROUP.

The island coins of this group are differentiated from other Aegean coins by a special type of reverse punch, square and marked by cross-lines arranged in "St. George's Cross" pattern.³¹

These coins are probably of sixth-century date, and emanated from four islands:

- (i) Delos . . . device, a lyre [Pl. VIII. 1, 2, 3].³²
- (ii) Naxos . . . device, a cantharos [Pl. VIII. 7].³³
- (iii) Tenos . . . device, a bunch of grapes [Pl. VIII. 8, 9].³⁴
- (iv) Paros . . . device, a goat [Pl. VIII. 4, 5, 6].³⁵

³¹ This square was doubtless derived from the type of punch employed from c. 600 B.C. onwards at Chios; cf. J. Mavrogordato, *A Chronological Arrangement of the Coins of Chios*, 1918 = *Num. Chron.*, 1915, Pl. I. 4, 10 and following.

³² Pl. VIII. 1, Paris, 8.55 grm. (132); Babelon, *Tr.*, i. col. 1299, 1927; Pl. VIII. 2, Sir H. Weber, *Catal.*, ii, no. 4655, 7.94 grm. (122.6), now in the British Museum; Pl. VIII. 3, Sir H. Weber, *Catal.*, ii, no. 4656, now in the British Museum.

³³ B. M. C., *Crete*, &c., p. 110, 2, 12.34 grm. (190.5).

³⁴ Pl. VIII. 8, Cat. Naville, i (Pozzi), no. 2060, 2.35 grm. (36.3); Pl. VIII. 9, Imhoof, *Griech. Münz.*, Pl. II. 9 (Brussels), 12.05 grm. (186).

³⁵ Pl. VIII. 4, 5, B. M. C., *Lycaonia*, &c., p. 51, 2, 6.01 grm. (92.8), and p. 51, 3, 5.47 grm. (84.4), the latter from the Isle of Syra; Pl. VIII. 6, Cat. Naville, i (Pozzi), no. 2048, 5.93 grm. (91.5).

The three first call for little remark since they have been well described and commented on.³⁶ Delos, under Samian and Athenian influence, naturally employed the Euboic standard; the other two the Pheidonian. But difference of standard did not lead to any difference in mint-technique within the group.

One Delian didrachm [Pl. VIII. 2] appears, as illustrated in the Weber Catalogue, to have a reverse of St. Andrew's Cross type. But the edges of the reverse are so incomplete that it is difficult to be sure, though the spreading of the divisions is in favour of that view of it. If so, this might be due to Athenian influence, and the coin might be regarded as the first Delian issue, imitating in its reverse as well as in its weight the early money of the Athenian oligarchs.

The Parian³⁷ coins call for more comment, because it has been usual to ascribe to that island the coins with a goat kneeling over a dolphin, which I prefer, for reasons given above, to assign with the other dolphin coins to Megara. What then remains for Paros?

The drachms of Paros figured in a sixth-century epigram of the great Simonides³⁸ which he wrote for the base of a statue of Artemis:

Ἀρτέμιδος τὸδ' ἄγαλμα· δικόσαι γὰρ ὁ μισθὸς
δραχμαὶ τὰ Πάρια τῶν ἐπίσημα τράγος.

³⁶ For Delos cf. Sir H. Weber in *Num. Chron.*, 1892, pp. 201 ff.; for Naxos, Babelon, *Traité*, i, col. 1311 ff.; for Tenos, Imhoof-Blumer, *Griech. Münz.*, p. 23 f.

³⁷ It should cause no surprise to find Parian coins struck with a "St. George's Cross" incuse of Chian derivation, for another link between the two islands during the sixth century is supplied by the fact that the famous school of Chian sculptors worked almost exclusively in Parian marble.

³⁸ *Anthol. Lyrica*, ed. Diehl, ii, fasc. i, p. 105, no. 114. The date of the epigram might fall early in the fifth century; however,

Of Artemis this is the statue; two hundred, yes, that
 was the price
 It cost me in Parian drachmae, each bearing a goat as
 device.

This artlessly mercenary epigram, which seems to contain the oldest literary reference to the actual type of a Greek coin, indicates that the Parian coins had goat types; and for the identification of the early Parian pieces I am indebted to Mr. E. S. G. Robinson for calling my attention to a note made by Mr. W. Wroth on a label in the trays of the National Collection. Mr. Wroth transferred to Paros the coins which were formerly regarded as the earliest issue of Kelenderis in Cilicia,³⁹ recording at the same time the fact that identical specimens were shown to the Museum authorities, which, like our **Pl. VIII. 5**, had been found in the island of Syra lying some twenty-two miles to the north-west of Paros.

Parian these drachms of Pheidonian weight obviously are. On some [**Pl. VIII. 4, 5**] the goat is kneeling, on others [**Pl. VIII. 6**] standing,⁴⁰ while

³⁹ *Ἀρτέμιδος τὸ δ' ἄγαλμα* occurs on a Delphic dedicatory inscription of the sixth century, *B. C. H.* 29 (1905), 214, possibly by an accidental coincidence.

³⁹ Cf. foot-note 35, above. Dr. Hill has kindly supplied me with the following note:

"This Parian attribution was pointed out to us by Imhoof; see *Kleinaz. Münzen*, ii, under Kelenderis, p. 453, immediately after the publication of *Catal. Cilicia*, and Wroth noted 'Paros' in our copy of the Catalogue at the time. The Syra provenance is noted in the Catalogue."

⁴⁰ It should be observed that such goat coins as that figured by Babelon in *Trinité*, i, **Pl. LXII. 2**, which have a shallow incuse square divided by two intersecting diagonals, probably emanate from the Thracio-Macedonian region.

the reverses are characterized by the same type of incuse as that appearing upon the reverses of the sixth-century coins of Delos, Naxos, and Tenos. These islands, therefore, constitute a definite numismatic group, the coinage of which came to an end about 490 B.C., when the four islands passed under Persian rule. Naxos was sacked by the Mede⁴¹ in 490 B.C., and her ships forced to sail ten years later in company with those of Tenos⁴² against the Greeks. That Paros too had Medized is proved by the punitive expedition led against it in 489 B.C. by Miltiades,⁴³ and Delos enjoyed the favour of the Persian Datis when he sailed to attack Eretria and Athens.⁴⁴

C. THE COAN GROUP.

To this small group there belong certain didrachms of Pheidonian weight which are probably of late seventh- or early sixth-century date. The reverses of these pieces are characterized by two square punch-marks, one larger, one smaller, which in the process of striking were applied separately, a method of punching coins which would appear to have originated in Phocaea.⁴⁵ Four obverse types exist:

- (i) Crab [Pl. VIII. 11].⁴⁶
- (ii) Rude female (?) head [Pl. VIII. 12].⁴⁷

⁴¹ Hdt. vi. 96.

⁴² Hdt. viii. 46 and 82. Both groups of islanders seized the first opportunity available to desert the Persian side.

⁴³ Hdt. vi. 133; Ephorus, *F. H. G.*, i, 263, frg. 107.

⁴⁴ Hdt. vi. 97.

⁴⁵ Cf. Babelon, *Traité*, i, col. 95, 121, 122.

⁴⁶ B. M. C., *Caria*, p. 193, 1: 12.28 grm. (189.5).

⁴⁷ *L. c.*, p. 84, 1: 9.92 grm. (153.1), "much worn".

(iii) Two dolphins swimming in same direction
[Pl. VIII. 10].⁴⁸

(iv) Sphinx seated, small amphora (?) before her
[Pl. VIII. 13].⁴⁹

On the Map (Fig. 1, p. 144, above) the limitations of this group are indicated. Type i is regularly assigned to Cos, of which island the crab is the usual device; while type ii, bearing perhaps the oldest numismatic representation of a human head, is with equal plausibility attributed to Cnidus.

Type iii demands a brief notice, if only for the purpose of emphasizing the fact that it cannot, owing to its peculiar reverse, be from the same mint as the didrachms and drachms depicting dolphins swimming in opposite directions, which, I have suggested above, are Megarian. It is probably of Thera, for dolphins swimming in the same direction—three creatures, though, instead of two—reappear on coins of undoubted Theran mintage in the fourth century B.C.⁵⁰

Lastly we have type iv, the seated sphinx with the small object before her. Both Mr. J. Mavrogordato and Mrs. Baldwin Brett in their brilliant monographs on the coinage of Chios⁵¹ are definitely disinclined to regard this piece as Chian, which, indeed, it cannot be. It seems that a place should be found for it within range of either Thera, Cos, or Cnidus, and

⁴⁸ The coin illustrated is in the British Museum; cf. *Num. Chron.*, 1919, p. 12; also *Z. f. N.*, xxv, p. 42.

⁴⁹ *Cat. Naville*, i (Pozzi), Pl. LXXIV. 2526: 12.15 grm. (1875).

⁵⁰ *Num. Chron.*, 1890, p. 323, 23, Pl. XIX. 18; *Cat. Hirsch*, xiii (Rhousoopoulos), Pl. XXXV. 3192.

⁵¹ *Ibid.*, 1915, p. 20; *Am. Journ. Num.*, 1914, p. 55.

I would tentatively put forward the suggestion that the type may be that of Caunos. Copper coins of the third to second century B.C. of Caunos have as their reverse type a seated sphinx,⁵² but it is a far cry from the seventh to the third century, and intermediate links are wanting.

Caunos was definitely the most important trading centre and port at the south-western angle of Asia Minor. Destroyed by Cyrus in 546 B.C., it was rebuilt, and in the fifth century figures in the Athenian tribute lists,⁵³ while later on it became a Rhodian possession, the chief Rhodian port on the mainland. The people claimed Cretan descent and were not improbably of Minoan origin, so that it would cause no surprise to find that their device was the sphinx, a creature prominent in Minoan and Mycenaean art.⁵⁴

Outside the scope of this Coan group, but none the less worth a passing notice, is the earliest Rhodian money, which conformed not to an Asiatic but to the Aeginetic standard. This consisted of electrum hemiobols [Pl. VIII. 14]⁵⁵ issued at Camirus and electrum obols [Pl. VIII. 13],⁵⁶ of which a single specimen (hitherto unrecorded), struck at Ialysus, survives. Its type is the head of an eagle. Pheidonian silver staters and divisions with the characteristic fig-leaf were also minted in Camirus.⁵⁷ About the mid-sixth century, however, Lindus, having begun an issue on the Milesian

⁵² B. M. C., p. 74, 1 ff.

⁵³ The Caunian annual tribute was 3,000 drachmae.

⁵⁴ H. Bossert, *Alt-Kreta*, pp. 170, 226, 230.

⁵⁵ B. M. C., *Caria*, p. 223, 1, Pl. XXXIV. 6: 0.52 grm. (8-1).

⁵⁶ My collection: 1.07 grm. (16.5).

⁵⁷ B. M. C., *Caria*, *l. c.*, 2-11.

system, induced Ialysus to abandon the European for the Asiatic standard.

It is now possible to trace from the Saronic Gulf to Asia a great trade-route which was employed during the seventh century, the period of Aeginetan thalassocracy, and to trace it by means of a series of islands all coining on the Aeginetan standard, those of them which lay within sight of Aegina actually copying the Aeginetan technique. From the Saronic Gulf the traders of Corinth, Megara, Athens or Aegina, from Euboea perhaps the traders of Carystos might sail by Ceos, Seriphos, Siphnos, Melos, Thera, Astypalaea,⁵⁵ Cos, and Cnidus to Caunos. If between the last two ports they touched at the Rhodian Camirus or Ialysus, they would find even there the Aeginetan standard in vogue. At Caunos the trader was already on the borders of Lycia, the citizens and dynasts of which country must have handled many coins of the states situated on the Aeginetan trade-route; for when a century or more later these Lycians began to coin their own money they sometimes copied the types of these older trading states. Frequent are the turtle of Aegina⁵⁹ and the Megarian dolphins,⁶⁰ and in addition to an Aphrodite⁶¹ and a Pegasus,⁶² suggested perhaps by Cnidian and Corinthian prototypes, we can point to a sphinx,⁶³ possibly the Caunian device, and a Coan crab⁶⁴ among the coins of Lycia.

⁵⁵ Its early coins, if any, remain unidentified.

⁵⁹ B. M. C., *Lycia*, Pl. I. 14-17.

⁶⁰ *Ibid.*, Pl. III. 7, 9-11.

⁶¹ *Ibid.*, Pl. V. 8 ff.

⁶² *Ibid.*, Pl. VII. 6-8.

⁶³ *Ibid.*, Pl. II. 5.

⁶⁴ *Ibid.*, on the reverse of the coin last cited.

A rough chronological table will supply the best summary of the suggestions concerning Aegean mints put forward in this paper.

- B. C.
- c. 700-665. Pheidon of Argos. Aeginetan thalassocracy founded. Coinage begun in Aegina towards end of reign.
- c. 640-600. Naucratis founded. Aegina has a factory there. Cypselus (d. 625 B. C.) and Periander in Corinth: coins. Theagenes in Megara: coins. Athens (c. 610 B. C.) begins coins; as also do Carystos(?), Carthaea, Iulis and Coresia in Ceos, Seriphos, Siphnos, and Melos. Towards end of same period coins of Thera, Cos, Cnidus, and (?) Caunos; also electrum of Camirus and Ialysus.
594. Solon's reform of Athenian coinage. Athens now follows her own course.
- c. 570. Salamis becomes Athenian. Megarian money ends.
- c. 550. Aeginetan influence declining. Melos and Siphnos⁶² adopt Milesian weight, conforming now to the silver issues, newly begun, of Carpathus, Ialysus, and Lindus. Money of another Aegean group, comprising Delos, Tenos, Naxos, and Paros, begins. Delos under Athenian influence.
546. Caunos destroyed.
490. Delos, Tenos, Naxos, Paros, under Persian rule, cease coinage.

C. T. SELTMAN.

⁶² For a Milesian stater of Siphnos cf. Babelon, *Tr.*, i, col. 1307, no. 1989.

IX.

ALEXANDER, SON OF NEOPTOLEMOS,
OF EPIRUS.

HIS GOLD, SILVER, AND BRONZE COINAGE.

The Carosino 1904 and Molossian 1925 finds.

[SEE PLATES IX-XI.]

I HAVE been fortunate enough to secure lately for my cabinet two remarkable and unique silver staters of Alexander the Molossian, son of Neoptolemos¹ [cf. Pl. IX. 12 and Pl. X. 8].

The condition of both coins, obtained from a Southern Italian find,² is extraordinarily brilliant, in fact their preservation at the time of their burial must have been absolutely *à fleur de coin* and precludes the

¹ At the death of Alcetas I the kingdom of Epirus had been divided between his two sons Neoptolemos and Arybbas or Arisbas. Neoptolemos, the father of Alexander, died c. 360 B.C. Alexander was the brother of Olympias, who married Philip II of Macedon (357 B.C.), the father of Alexander the Great. He at first reigned only as king of the Molossians (360 B.C.), but later, with the help of his brother-in-law Philip, he expelled from his throne his uncle Arybbas, and thus established his rule over all Epirus. He had meanwhile been married to Cleopatra, daughter of Philip, and was thus doubly related to his great namesake of Macedon. With the help of his brother- and father-in-law he had conquered Cassopia, Pandosia, Bucheta, and Elateia, colonies of Elis, after carrying war against the Illyrians and Leucas, establishing one of his capitals at Ambracia (E. Babelon, *Traité*, T. IV, p. 128) [B. C. 343-342].

² Cf. page 211.

possibility of their having been struck any length of time before their concealment.

Like other gold and silver coins of this king, the two above-mentioned staters differ most remarkably in expression, style, and fabric.

Before proceeding further, and trying to ascertain to which mint they should most probably be assigned, it may be well to give in this paper the description and tentative chronological classification of all Alexander's beautiful and exceedingly rare coinage now available for study, the brief and ill-fated adventure of the Molossian prince in Magna Graecia³ (334-330 B.C.), as shown by Sir Arthur Evans in his masterly monograph "The Horsemen of Tarentum", being of great importance in the history of the Graeco-Italian coinages, for which it supplies so many important landmarks.

Hitherto no attempt has been made to arrange Alexander's coinage in chronological order. In fact, with the exception of a few valuable lines from the learned pen of Percy Gardner in his introduction of the *B. M. C. of Thessaly to Aetolia* (p. xliii), we can only refer to brief notices such as those given by Head (*Historia Numorum*², 1911, p. 322), and, quite recently, by the late E. Babelon in the posthumous T. IV of his magnificent and so useful *Traité des Monnaies Grecques et Romaines* (p. 150).

³ For the history of Alexander's adventure in Southern Italy cf. A. J. Evans, *loc. cit.*, p. 80; F. Lenormant, *La Grande Grèce* (1881), p. 39; Droysen, *Geschichte des Hellenismus*, Gotha, 1877, p. 382; R. Lorentz, *Veterum Tarentinorum Res Gestae*, Elberfeld, MDCCCXXXVIII, *Alexandri Molossi Bellum*, p. 24; Strabo VI. 219; Diodor. XVI. 95; Livius VIII. 24; Justin XII. 2. 6-12; Pausan. I. ii. 3; Plin. *Nat. Hist.* iii. 15 ex Theopompo.

CATALOGUE OF TYPES.

In the following catalogue of types, *or rather of die-couplings*, I have included all the specimens of which I have been able to obtain casts, and I am glad to thank here the private owners and curators of public coin collections whose names are set out on the following pages, who helped⁴ me thus to compile what purports to be a *corpus* of all the known variations of gold and silver types caused by the substitution of a new die.

Gold and silver coins of Alexander the Molossian are, to the best of my knowledge, represented in the following public or private collections only: Athens (National Numismatic Museum) [1 \mathcal{A}]; Berlin (Kaiser Friedrich Museum) [2 \mathcal{A} , 6 \mathcal{A}]; Boston (Museum of Fine Arts) [1 \mathcal{A}]; Cambridge (Fitzwilliam Museum) [1 \mathcal{A}]; Copenhagen (Royal Numismatic Cabinet) [1 \mathcal{A}]; Mr. Claudius Côte, Lyons [1 \mathcal{A}]; Glasgow (University) [2 \mathcal{A}]; Mr. C. S. Gulbenkian, Paris [1 \mathcal{A}]; The Hague (National Collection) [1 \mathcal{A}]; Mr. R. Jameson, Paris [2 \mathcal{A}]; Mr. A. H. Lloyd, Cambridge [2 \mathcal{A}]; London (British Museum) [2 \mathcal{A} , 5 \mathcal{A}]; Milano (Castel Sforzesco) [1 \mathcal{A} , 1 \mathcal{A}]; Munich (Münzkabinett) [2 \mathcal{A}]; Naples (Museo Nazionale) [1 \mathcal{A}]; New York (Metropolitan Museum) [1 \mathcal{A}]; Mr. E. T. Newell, New York [2 \mathcal{A}]; Paris (Cabinet des Médailles) [2 \mathcal{A} , 2 \mathcal{A}], and (de Luynes) [1 \mathcal{A} , 1 \mathcal{A}]; the late Viscount de Sartiges,

⁴ I desire to express here my special thanks to Mr. E. S. G. Robinson and acknowledge his kind assistance in reading the proof-sheets of this article and for his many valuable suggestions, and to Mr. S. P. Noe, who kindly helped me in obtaining casts from American collections.

Paris [1 \mathcal{A}]; *Commerce* (Spink & Sons, Ltd., London, 1926) [1 \mathcal{A}]; Taranto (Museo Civico) [1 \mathcal{A}]; Vienna (Kunsthistorisches Hofmuseum) [2 \mathcal{A}]; Mr. M. P. Vlasto, Marseilles [2 \mathcal{A} , 8 \mathcal{A}]; ? (formerly Consul Weber) [1 \mathcal{A}], giving a total of 12 gold coins (of which 4 staters) and 46 silver coins (of which 32 staters). In the above list no account has been taken of the bronze coins which, though very scarce, are to be found in most of the important collections.

GROUP A.

c. 342-334 B.C.

Silver struck in Epirus, probably engraved by an artist from Olympia.

Type No. 1.

Obv.—Head of Zeus Dodonaeus r. crowned with oak, the beard curly, the hair long and wavy, high relief.

Rev.—ΑΛΕΞΑΝΔΡΟΥ (inwards and upwards) to l. †.
 ΤΟΥΝΕΟΠΤΟΛΕΜΟΥ (outwards and upwards) to r. †.
 Upright thunderbolt dividing the legend, in field to r. small eagle's head to r. Concave field.

- a. \mathcal{A} Corcyraean stater 22.5 mm. Wt. 10.90 grm. Berlin. [Pl. IX. 1] = ex Löbbecke col. (1894).
- b. \mathcal{A} 21 mm. Wt. 10.82 grm. Munich (rather fine).
- c. \mathcal{A} 22.5 mm. Wt. 10.52 grm. M. P. Vlasto [p. 174, fig. 2 *obv.*] (the *rev.* somewhat damaged) = Sir Herman Weber col. = L. Forrer, Catalogue of the Weber collection, V. II, No. 3012, Pl. 116 = Photiadis Pacha sale, Paris, 1890, lot No. 239, Pl. II.
- d. \mathcal{A} 25 mm. Wt. 10.88 grm. Spink & Sons, Ltd. (1926) (somewhat worn) = Engel Gros sale, Paris (1921), Pl. III. 46 = Late Collector sale (1900), Pl. V. 260.

Type No. 1 A.

Obv.—Similar, higher relief and from another die.

Rev.—From same die as No. 1.

- a. *R* 22.5 mm. Wt. 11.02 grm. Boston [Pl. IX. 2] = Catherine Page Perkins, No. 231 = Guide to the C. P. Perkins collection, pp. 32 and 78.
- b. *R* 22 mm. Wt. 10.70 grm. (poorly preserved). A. H. Lloyd = E. N. Mavrogordato col. = Svoronos, J. I. A. N. (1911), p. 286, No. 621, Pl. XI. 27.
(The reverse die of Types 1 and 1 A shows a small flaw in f. to l. near the thunderbolt's handle.)

GROUP B.

Type No. 2.

After c. 334 B.C.

Silver struck at Taras.

Obv.—Head of Zeus Dodonaeus, crowned with oak r., very high relief, the beard curly, the hair long and flowing.

Rev.—ΑΛΕΞΑΝΔΡΟΥ (downwards inwards) to r. ↓.
ΤΟΥΝΕΟΡΤΟΛΕΜΟΥ (downwards outwards) to l. ζ.
Upright thunderbolt dividing legend, in f. to l. small eagle to l. with closed wings. Concave field.

- a. *R* 24 mm. Wt. 10.98 grm. British Museum (1896) [Pl. IX. 3] = Montagu sale (1896), Pl. V, No. 325.
- b. *R* 22 mm. Wt. 11.05 grm. ? formerly Consul Ed. F. Weber = Hirsch sale XXI, Pl. XIX. 1443.
- c. *R* 21 mm. Wt. 10.83 grm. E. T. Newell = Rev. Percy Barron = Hirsch sale XXX, Pl. XVI. 487 = Gustav Philipsen = Hirsch sale XXV, Pl. IX. 765.

Type No. 2 A.

Obv.—From same die as No. 2.

Rev.—ΑΛΕΞΑΝΔΡΟΥ (upwards, inwards) to l. ↑.
 ΤΟΥΝΕΟΠΤΟΛΕΜΟΥ (upwards, outwards) to r. ↘.
 Same type and symbol. Concave field.

a. *R* 22 mm. Wt. 10.78 grm. Vienna [Pl. IX. 4] (ex Tiepolo col.) (The obverse die is now somewhat worn.)

Type No. 3.

Obv.—Similar, but type larger, very high relief, and of coarse style. The letters of inscription badly shaped.

Rev.—ΑΛΕΞΑΝ[ΔΡΟΥ] (downwards, inwards) to r. ↓.
 ΤΟΥΝΕΟΠΤ[ΟΛΕΜΟΥ] (downwards, outwards) to l. ↙.
 Same type, but in place of eagle, *dolphin* to l. downwards.

a. *R* plated. 24.5 mm. Wt. 10.45 grm. M. P. Vlasto. [Pl. IX. 5.] Found at Taranto (1923).

(The reverse die has shifted and the thunderbolt is blurred and out of shape. The red bronze core is visible on obverse in f. to r., and on reverse between the thunderbolt and dolphin's snout, where the coin has suffered from oxidization.)

GROUP C.

Type No. 4.

c. 334–332 B.C.

Gold and silver coins struck at Taras and engraved by the Tarentine artist ΚΑΛ.

Obv.—Head of Zeus Dodonaicus, &c., of magnificent gem-like style.

Rev.—ΑΛΕΞΑΝΔΡΟΥ (inwards and above) →.
 ΤΟΥΝΕΟΡΤΟΛΕΜΟΥ (outwards and beneath) →.
 Horizontal thunderbolt dividing the legend above
 which a spear-head points to r. Concave field.

- a. *A* Attic or Tarentine gold stater 18 mm. Wt. 8.57
 grm. British Museum [Pl. IX. 6] (from the Bank
 collection). B.M.C., *Thessaly to Aetolia*, p. 110,
 No. 1, Pl. XX. 1 = E. Babelon, l.c., T. IV, Pl.
 CCLXXXIII. 1 and p. 154, No. 329 = P. Gardner,
The Types of Greek Coins, Pl. V. 37 = M. P. Vlasto,
Les Monnaies d'Or de Tarente, J. I. A. N. (1899),
 Pl. IE' 16 = B. Head, *Coins of the Ancients*,
 Pl. 33. 11.

Type No. 4a.

Obv.—Similar, from another die.

Rev.—Similar, from another die.

- a. *A* 17 mm. Wt. 8.56 grm. Glasgow [Pl. IX. 7] =
 Hunter col. = G. Macdonald, *Greek Coins in the
 Hunterian Collection*, V. II, p. 12, No. 1, Pl. XXXI.
 17.

Type No. 5.

Obv.—Similar, the relief higher.

Rev.—Same type and symbol, but beneath thunderbolt a
 star of six rays.

- a. *A* 17 mm. Wt. 8.60 grm. Berlin [Pl. IX. 8] = 178/
 1873 purchased in Paris from H. Hoffmann =
 J. Friedländer, *Das Königl. Münzkabinett* (1877),
 p. 175, No. 638 = Eckhel, *Doct. Num.* VII, p. 169 =
 J. Millingen (1841), *Considérations sur la Numis-
 matique de l'Ancienne Italie*, p. 110. 1.
- b. *A* 18 mm. Wt. 8.53 grm. Paris [Pl. IX. 9] (not fine)
 Cabinet des Médailles, No. 966 (ex Pierre Seguin's
 col. purchased by Louis XIV) = E. Babelon, l.c.,
 p. 154, No. 4, Pl. CCCLXXIII. N. 2 = P. Seguin,
Selecta Numismata antiqua ex Museo Petri Seguni,
S. Germani Antissiodorensis decani, Paris (1665).

Type No. 6.

Obv.—Head of Apollo-Helios facing slightly turned to l., on radiate disk, the rays alternately shorter and longer.

Rev.—AA (inwards and above) →.
EΞ (outwards and beneath) →.

Horizontal thunderbolt dividing the legend.

- a. *N* Attic obol or $\frac{1}{2}$ of Tarentine stater 9 mm. Wt. 0.70 grm. Glasgow [Pl. IX. 10 a] = Hunter col. = Macdonald, l. c., p. 12, No. 2.

Type No. 6 A.

Obv.—Same, from same die as No. 6.

Rev.—Same, from another die.

- a. *N* 8 mm. Wt. 0.69 grm. British Museum (ex Payne Knight col.) = B.M.C., p. 110, No. 2, Pl. XX. 2 = J. Millingen, l. c., Pl. II. 6 (?) = A. J. Evans, l. c., Pl. V. 6 = E. Babelon, l. c., p. 154, No. 637.
- b. *N* 8 mm. Wt. 0.71 grm. Berlin, No. 253 (ex V. Rauch col. 1878) = Friedländer, l. c., pp. 174, 637.
- c. *N* 8 mm. Wt. 0.68 grm. M. P. Vlasto [Pl. IX. 10] = Hirsch XXI sale (Consul E. F. Weber), Pl. XIX. 1442.
- d. *N* 8 mm. Wt. 0.66. Paris (Cabinet des Médailles), No. 967 = Du Mersan, *Cabinet Allier de Hauteroche*, Pl. V, No. 19.
- e. *N* 8.5 mm. Wt. 0.69. Paris (de Luynes col.), No. 968 = J. Babelon, *Catalogue de la Collection de Luynes*, vol. II, No. 1892, Pl. LXXII = E. Babelon, l. c., p. 154, No. 330, Pl. COLXXXIII. 3.
- f. *N* 8 mm. Wt. 0.70. Milano = M. P. Vlasto, J. I. A. N. (1901), Pl. S' 3.

Type No. 6 B.

Obv.—From same die as No. 6 and No. 6 A.

Rev.—Same, from another die.

- a. *A* 8 mm. Wt. 0.65 grm. M. P. Vlasto [Pl. IX. 11] = M. P. Vlasto, J. I. A. N. (1899), l.c., Pl. IE' 13 = Bunbury (1896) sale, No. 881 = ? Northwick sale (1859), No. 748.

Type No. 7.

Obv.—Head of Zeus Dodonaeus crowned with oak r., of gem-like style, rather high relief, the beard very curly, the hair long and flowing.

Rev.—ΑΛΕΞΑΝΔΡΟΥ (inwards and upwards) to l. ↑.
ΤΟΥΝΕΟΓΤΟΛΕΜΟΥ (outwards and upwards) to r. ↑.

Upright thunderbolt dividing the legend. In f. to l. small eagle to l., the wings closed. Concave field.

- a. *A* 24 mm. Wt. 10.95 grm. M. P. Vlasto [Pl. IX. 12] from the 1925 find from Southern Italy. Re-struck on a Corcyraean stater as B.M.C., p. 118, 59-64; cf. Pl. XXI. 14. (The lower⁵ part of cow's hind legs are visible, on reverse, above and to left of the eagle's head.)

Type No. 7 A.

Obv.—From same die as No. 7.

Rev.—Similar, from another die.

- a. *A* 27 mm. Wt. 10.69 grm. Paris [Pl. IX. 13], Cabinet des Médailles, No. 969 (purchased March, 1875) = Babelon, l.c., T. IV, p. 154, No. 331, Pl. CCLXXXIII. 4.—Re-struck on a Corcyraean stater (the hind leg of cow visible⁶ on obverse beneath neck of Zeus, and the cow's tail can be traced above the lower part of the god's flowing hair).

⁵ These traces, not discernible on the cast, are clearly visible on the original coin.

⁶ I owe to Mr. Robinson the detection of these traces clearly visible on an electrotype of the Paris coin in the British Museum.

Type No. 7 B.

Obv.—From same die as Nos. 7 and 7 A.

Rev.—Similar, from another die.

- a. AR 24 mm. Wt. 10.63 grm. Cambridge [Pl. IX. 14], McClean col. Fitzwilliam Museum; S. W. Grose, *Cat. of the McClean Coll. of Greek Coins*, V. II, No. 5160 = Earl of Ashburnham sale (1895), Pl. III. 105. (A re-struck coin only well preserved.)
- b. AR 24 mm. Wt. 10.275 grm. Athens, No. 1498 (very much worn).

Type No. 7 c.

Obv.—Same type, but the hair of Zeus curling up behind in wave-like crests. Very high relief, and otherwise of same style as type No. 5.

Rev.—Similar, from another die. Concave field.

- a. AR 23 mm. Wt. 10.53 grm. Copenhagen [Pl. IX. 15], Royal Numismatic Cabinet (somewhat worn).
- b. AR 22 mm. Wt. 10.43 grm. Berlin (holed and in very poor condition) = Prokesch-Osten.

Type No. 8.

Obv.—Head of Apollo-Helios facing slightly turned to l., the hair short and curly, on radiate disk, the rays alternately shorter and longer.

Rev.—ΑΛΕΞΑΝΔΡ•Υ (inwards and above) →.
 Τ•Υ ΝΕ•ΠΤ•ΛΕ (outwards and beneath) →.
 Horizontal thunderbolt dividing legend. Concave field.

- a. AR Corcyraean obol (?) or Italic (Tarentine) diobol. 18.5 mm. Wt. 1.28 grm. Vienna [Pl. X. 1].
- b. AR 14.5 mm. Wt. 1.15 grm. M. P. Vlasto [Pl. X. 2] = M. P. Vlasto, l.c., J. I. A. N. (1901), Pl. S' 17.

- c.* R 12 mm. Wt. 1.21 grm. British Museum = B.M.C., p. 110, No. 6.
- d.* R 12.5 mm. Wt. 1.12 grm. Berlin [Pl. X. 3] = Gen. Fox col. = Bööcke col., 1855.
- e.* R 12.5 mm. Wt. 1.18 grm. Berlin (purchased 1839).
- f.* R 13 mm. Wt. 1.14. Naples (1900) = M. P. Vlasto, l.c., J. I. A. N. (1901, Pl. S' 17).
- g.* R 12.5 mm. Wt. 1.08 grm. Taranto (Museo Civico) = Nervegna sale (1907), Pl. III. 367. Found at Taranto (1896).
- h.* R 12.5 mm. Wt. 1.12 grm. R. Jameson = Cat. Jameson, V. I, No. 1123, Pl. LVIII = A. J. Evans col., A. J. Evans, l.c., Pl. V. 7 = Late Collector sale (1900), Pl. V. 261 = R. Carfrae sale (1894), No. 114 = G. Sim (1890), No. 47. Found at Brindisi (1871) during formation of railway.
- i.* R 12.5 mm. Wt. 0.95 grm. Cl. Côte. Found at Taranto (1921).

Type No. 8 A.

Obv.—Similar, but all the rays of about the same length.

Rev.—Similar, from another die.⁷

- a.* R 13 mm. Wt. 1.14 grm. Paris [Pl. X. 4] = Cabinet des Médailles, No. 970 = E. Babelon, l.c., p. 154, No. 333, Pl. CCLXXXIII. 7. [Pl. CCLXXXIII. 6 is the de Luynes specimen. The casts have become interchanged on the plate.]
- b.* R 12 mm. Wt. 0.92 grm. M. P. Vlasto (badly preserved).
- c.* R 10.5 mm. Wt. 0.68 grm. A. H. Lloyd = C. Bement Naville VI sale, Pl. 33, No. 969 = Berlin = Imhoof-Blumer = A. Hess (1906) sale, Pl. III. 455.

⁷ It is possible that there may be more than 2 reverse dies of this type, but owing to indifferent preservation and bad striking of some of the examples recorded here, it is difficult to identify the dies.

Type No. 8 B.

Obv.—Similar, but type larger and of somewhat coarse style.

Rev.—ΑΛΕΞΑΝΔ (inwards and above) →.
Traces of illegible inscription (beneath) →.
Same type dividing the legend. Concave field.

- a. *AR* [Plated?] 13.5 mm. Wt. 0.88 grm. Paris, No. 971
[Pl. X. 5] = de Luynes col. = E. Babelon, l.c.,
p. 154, No. 333, Pl. CCLXXIII. 6 = J. Babelon,
l.c., p. 67, No. 1893, Pl. LXXII = Rollin et Feu-
arant (1862), *Cat. d'une collection de Médailles*, p. 211,
No. 3189.

Type No. 8 c.

Obv.—From same die as No. 8 B.

Rev.—ΑΛΕΞΑΝ (?) (inwards and above) →.
ΔΡΟΥ (?) (outwards and beneath) →.
Same type dividing the legend. Concave field.

- a. *AR* plated 12 mm. Wt. 1.03 grm. British Museum
[Pl. X. 6] = B.M.C., Pl. XX, No. 5.

GROUP D.

Type No. 9.

c. 332 B.C.

Silver struck at Taras.

Obv.—Head of Zeus Dodonaeus r., crowned with oak, the beard short and curly, the hair which is long and very curly is of gem-like finish. The neck square and short. High relief. Beneath neck-truncation Π.

Rev.—ΑΛΕΞΑΝΔΡΟΥ (inwards and above) →.
ΤΟΥΝΕΟΠΤΟΛΕΜΟΥ (outwards and beneath) →.
Horizontal thunderbolt dividing the legend. Con-
cave field.

- a. *AR* 20.5 mm. Wt. 10.93 grm. R. Jameson [Pl. X. 7] =
R. Jameson *Cat. V. I*, pp. 257, 1122, Pl. LVIII.

- b. AR 23 mm. Wt. 10.89 grm. C. S. Gulbenkian = C. S. Bement, Naville (1923) VI sale, No. 968, Pl. 34 = T. L. Comparetti, *A descriptive Catalogue of Greek coins selected from the Cabinet of Clarence S. Bement*, Philadelphia (1921), Pl. XI. 163 = Egger (1912) sale (Th. Prowe), Pl. XVII. 853 = Hirsch XIII sale (Rhusopoulos) 1905, Pl. XX, No. 151.
- c. AR 23.5 mm. Wt. 10.93. New York (Metropolitan Museum), P. Morgan = J. Ward. *Greek coins and their Parent Cities*, Cat. by G. F. Hill, Pl. XI, No. 460.

Type No. 10.

Obv.—From same die as No. 9.

Rev.— ΑΛΕΞΑΝΔΡΟΥ (inwards and upwards) \uparrow .
 ΤΟΥ ΝΕΟΡΤΟΛΕΜΟΥ (outwards and upwards) \uparrow .
 Upright thunderbolt dividing the legend. In f. to l. small eagle with closed wing to l. Concave field.

- a. AR 21.5 mm. Wt. 10.90 grm. M. P. Vlasto [Pl. X. 8] from the 1925 Southern Italian find.
 (The obverse die shows signs of deterioration, and a small flaw following the lower oak leaves of crown shows that No. 10 is certainly a later striking than No. 9.)

GROUP E.

Type No. 11.

c. 334–332 B.C.

Silver from uncertain mint.

Obv.—Similar type, but the beard and neck longer, of very fine style and very high relief.

Rev.— ΑΛΕΞΑΝΔΡΟΥ (inwards and downwards) to r. \downarrow .
 ΤΟΥ ΝΕΟΡΤΟΛΕΜΟΥ (outwards and downwards) to l. \downarrow .
 Upright thunderbolt dividing legend. In f. to right small eagle to r. with closed wings. Concave field.

- a. *R* 22.5 mm. Wt. 10.71 grm. British Museum [Pl. X. 9], Woodhouse col. = B.M.C., p. 110, No. 3, Pl. XX. 3 = B. Head, *Hist. Num.*², fig. 180 = B. Head, *Coins of the Ancients*, Pl. 22, No. 23 = P. Gardner, l.c., Pl. V. 38 = G. F. Hill, *Handbook of Greek and Roman Coins*, Pl. VIII. 3.

Type No. 12.

c. 332-330 B.C.

Silver, probably struck at Metapontion?

Obv.—Similar type, relief lower, the neck short. Close to the neck-truncation a very minute monogram $\Xi = \Xi E$.

Rev.— ΑΛΕΞΑΝΔΡΟΥ (inwards and downwards) to r. ↓.
 ΤΟΥΝΕΟΠΤΟΛΕΜΟΥ (outwards and downwards) to l. ↓.

Same type dividing the legend. In f. to r. small eagle, wings closed to r.

- a. *R* 21.5 mm. Wt. 10.28 grm. M. P. Vlasto [Pl. X. 10] (has lost weight through oxidization) = Dieudonné,³ *Cat. Pozzi*, Pl. CXXX, No. 2983.

- b. *R* 22.5 mm. Wt. 10 grm. The Hague (very poorly preserved).

- c. *R* $\frac{22}{8}$ mm. Wt. 4.85 grm. Berlin (only a fraction of the coin, showing the lower part of obverse type and the small eagle with the inscription ΑΛΕΞΑΝΔΡΟΥ of reverse) = Gen. Fox = Bayly col. (1847).

Type No. 13.

Obv.—From same die as No. 12.

Rev.— ΑΛΕΞΑΝΔΡΟΥ (upwards and inwards) to l. ↑.
 ΤΟΥΝΕΟΠΤΟΛΕΜΟΥ (upwards and outwards) to r. ↑.

Same type, but the eagle in f. to l. Concave field.

³ Only three presentation copies of this catalogue were issued before the death of Dr. Pozzi.

- a. \bar{R} 22.5 mm. Wt. 10.38 grm. M. P. Vlasto [Pl. X. 11] = Dieudonné, *Cat. Pozzi*, No. 2982, Pl. CXXX. (Slight cut on obverse beneath ear of Zeus and somewhat clipped.)
- b. \bar{R} 23 mm. Wt. 10.71 grm. Milano [Pl. X. 12] = Ambrosoli, *Monete Greche* (1899), p. 33, fig. 2.

GROUP F.

Type No. 14.

c. 332-330 B.C.

Silver, probably struck in Epirus, the work of an artist from Thessaly.

Obv.—Head of Zeus, &c., the hair mane-like, long and curly, the beard rather sparse and protruding. High relief.

Rev.—ΑΛΕΞΑΝΔΡΟΥ (inwards and above) →.
 ΤΟΥΝΕΟΠΤΟΛΕΜΟΥ (outwards and below) →.
 Horizontal thunderbolt dividing legend. Concave field.

- a. \bar{R} 22 mm. Wt. 10.83 grm. Berlin [Pl. X. 13] = Imh.-Blumer purchased from Lambros.
- b. \bar{R} 20 mm. Wt. 10.62 grm. British Museum [poorly preserved] = B.M.C., p. 110, No. 4, Pl. XX, No. 4 = P. Gardner, l.c., Pl. V. 39 (obverse) = E. Babelon, l.c., Pl. CCLXXXIII. 5.
- c. \bar{R} 23 mm. Wt. 10.60 grm. Munich = Frankfurt a. M. (1906) sale, Pl. III, No. 454 = Berlin (Prokesh-Osten).

Type No. 14 a.

Obv.—From same die as No. 14.

Rev.—Same from another die.

- a. \bar{R} 26 mm. Wt. 10.82 grm. E. T. Newell [Pl. X. 14] = Osman Noury Bey = J. Glas Sandeman sale (1911), Pl. IV. 170.

Type No. 15.

Obv.—Similar, but the head larger, with very large oak-leaves on crown. The beard full and protruding. Very high relief.

Rev.—Same, from same die as No. 14 A. (The reverse die has now very much deteriorated.)

a. R 23 mm. Wt. 10.56 grm. The late Vic. de Sartiges [Pl. X. 15] = *Col. du Vicomte de Sartiges, séries grecques et romaines* (1910), Pl. XIV, No. 230 = Hirsch XXV sale (G. Philippsen), No. 764, Pl. IX. 764.

Type No. 16.

342-330 B.C.

Bronze coins struck in Epirus?

Obv.—Eagle standing r., wings closed. In f. to l. tripod-lebes, to r. laurel spray. Border of dots.

Rev.—ΑΛΕΞΑ (inwards, upwards) to l. ↑.

ΤΟΥ ΝΕ (inwards, downwards) to r. ↓.

Upright thunderbolt dividing legend within laurel wreath. Æ 16 mm. to 18 mm. Wt. 3.04 to 4.25 grm. British Museum = B.M.C., pp. 1107-8, Pl. XX. 6.—Paris, No. 972 (wt. 4.25 grm.) = E. Babelon, l.c., p. 154, No. 334, Pl. CCLXXXIII. 8.—Berlin 5 examples [Pl. XI. 1. 2].—Naples = Cat. del Museo Nazionale, col. Santangelo, Fiorelli, Nos. 10333-39, Naples (Medagliere) = Fiorelli, Nos. 6822-27.—Vienna.—Athens, No. 1949.—Gotha (2 ex.).—Cambridge = McClean, Grose V. ii, No. 5161 [Pl. XI. 3].—M. P. Vlasto (ex Pozzi) [Pl. XI. 4].—Cl. Côte, &c.

(All the above struck from many different obverse and reverse dies.)

Type No. 16 A.

Obv.—Similar.*Rev.*—Similar, but inscribed **ΑΛΕΞ** (inwards and upwards) to l. ↑.**ΤΟΥΝΕ** (inwards and downwards) to r. ↓.

Æ 17.5 mm. Berlin [Pl. XI. 5].—Munich (3 ex.). Wt. 3.56 to 3.60 grm.—Glasgow, Hunter col. = Macdonald, T. II, p. 12, 3.

Type No. 16 B.

Obv.—Similar.*Rev.*—Similar, but inscribed **ΑΛΕ** (inwards and upwards) to l. ↑.**ΤΟΥΝ** (inwards and downwards) to r. ↓.

Æ 17.5 mm. to 18 mm. Wt. 3.50 to 4.10 grm.

Vienna (ex Tiepolo col.) [Pl. XI. 6].—Berlin [Pl. XI. 7].

Type No. 17.

Obv.—Same type, but eagle looking back. No symbols.*Rev.*—Similar, but inscribed **ΑΛΕΞ** (inwards and upwards) to l. ↑.**ΤΟΥΝ** (inwards and downwards) to r. ↓.

Æ 15.5 mm. Berlin [Pl. XI. 8].—Vienna (ex Tiepolo col.). Wt. 3.48 grm.

Type No. 18.

c. 334–332 B. C.

Bronze, struck at Taras.

Obv.—Head of Apollo-Helios facing and radiate turned slightly to r.*Rev.*—Large star (the sun?) of 16 rays alternately long and short.

a. Æ 8 mm. Wt. 0.41 grm. M. P. Vlasto [Pl. XI. 9] = Strozzi sale (1907), No. 954.

b. Æ 8 mm. Wt. 0.40 grm. Berlin = H. Dressel, *Beschr. der ant. Münzen*, T. III, p. 309 (under Tarentum) No. 626, Taf. XIV. 231.

CLASSIFICATION OF TYPES.

In the case of a coinage lasting only about twelve years, it is astonishing to find differences of style sufficiently marked to help one to determine the order of the issues and divide them into seven groups [A to F], more so as the Molossian's gold and silver staters furnish an illustration of the same types treated according to minute variations of style. But, as is well known, the style of the coins cannot be regarded as offering a safe criterion, and it will be noticed, in the above catalogue, that the succession of types is also established by the die-sequences whenever ascertained, and in cases where no die-connexion can be traced there is but little uncertainty about the order of the issues on general lines. For there often is such close similarity between the reverse dies of certain different obverses that we may establish their chronological sequence and couple their issues as infallibly as by common dies. For instance, the staters, figured on Pl. X. 11 and 12, have a common reverse-die which follows so closely the reverse of Pl. X. 8 that it is difficult, at first sight, to distinguish the two dies; the same may be said of the closely associated reverses 7, and 13, 14, 15 on Pl. X. It is evident that these reverse-dies are contemporaneous, or nearly so.

It is noteworthy that there are only two cases where two different obverse-dies have been found to share a common reverse-die [Pl. IX. 1 and 2 and Pl. X. 14 and 15], but, as might be expected, most of the silver staters are found with their obverse-die connected with two or three different reverses [Pl. IX. 3 and 4, 12, 13, and 14 ;

Pl. X. 7 and 8, 10 and 11, 13 and 14]. The following die-couplings are known at present only by unique examples, Pl. IX. 4, 5, 6 (A), 12, 13 ; Pl. X. 8, 9, 14, 15.

The at times tentative attribution of the Molossian's coins to various mints, as given above, is not solely based on scanty historical data and individual stylistic arguments or comparisons, but also on the more conclusive evidence from finds and provenance whenever available.

Epirus, before the accession of Alexander, son of Neoptolemos, was only a congress of independent tribes and cities, and the writer fully agrees with E. Babelon that Alexander, at first ruling only over the Molossians [360-342 B.C.], did not strike coins in his own name before c. 342, after extending his dominion all over Epirus.⁹

Trying to ascertain to which mints Alexander's coins should be assigned, P. Gardner, in his introduction to the British Museum Catalogue, sums up the question as follows: "We possess coins of Alexander in gold, silver, and copper, the gold probably struck in Italy, the silver possibly in Epirus, but more probably in Italy, and the copper almost certainly in Epirus."

E. Babelon, following B. Head and Sir Arthur Evans, writes: "Les monnaies d'Alexandre, fils de Néoptolème, devraient se partager en deux groupes: celles que ce prince fit frapper en Épire et qui se substituent aux monnaies autonomes des villes de ce pays; celles qu'il émit en Italie Méridionale au cours de ses conquêtes dans cette contrée. Mais toutes ces pièces portent les mêmes types et sont sans indication

⁹ Cf. *supra*, note No. 1.

d'atelier. C'est donc uniquement par l'appréciation du mérite artistique qu'on peut admettre que les pièces d'or et d'argent, qui sont du meilleur style, ont été frappées en Italie, peut-être dans l'atelier de Tarente ou celui de Locres en Bruttium. Mais il y a nécessairement dans cette appréciation du style des pièces une large part laissée à l'arbitraire de chacun et puis, s'il est avéré qu'Alexandre a fait appel aux plus habiles des artistes de la Grande Grèce pour graver des coins monétaires, rien ne s'oppose à ce que ces artistes aient traversé la mer Ionienne pour aller à Dodone."

He further adds, speaking of the gold stater in the British Museum [Pl. IX. 6]: "La tête de Zeus Dodonéen est digne de soutenir la comparaison avec les plus belles médailles contemporaines de Tarente, de Locres,¹⁰ ou même de Syracuse. Les artistes qui ont gravé ces admirables pièces étaient sûrement les mêmes que ceux qui avaient mis leur talent au service de ces villes;" and referring to the Corcyraean standard of the silver staters he concludes that most of the latter, when of rather inferior work, were probably minted in Epirus. I have quoted Babelon almost at length, as I shall have to refer more than once to some of the above statements.

It is highly probable that Alexander, besides striking copper coins, also issued silver staters during the first eight years of his reign in Epirus, before setting sail for Italy, in 334, with fifteen war ships and numerous transports, since considerable sums of money must have been needed to support the equipment of the

¹⁰ B. Head, in *H. N.*, p. 322, writes: "On the whole, however. I am inclined to attribute all Alexander's coins to the Locrian or possibly to the Syracusan mint."

large number of troops he required in order to help the Tarentines and their allies.

As Sir Arthur has rightly stated,¹¹ most of Alexander's noble pieces have a distinctly *Italo-Greek character*, but a glance at Pl. IX and X will immediately lead us to single out the silver staters 1 and 2 (Pl. IX), and 13, 14, 15 (Pl. X), as belonging to entirely different schools of art. Any one acquainted with the splendid Olympian silver staters struck c. 363-343 B.C., according to Charles T. Seltman's recent classification, in his valuable and exhaustive monograph on the Temple Coins of Olympia, cannot fail to notice that the heads of Zeus Dodonaeus on Alexander's staters, figured on Pl. IX. 1 and 2, are evidently copied on a reduced scale from some of the finest heads of the Olympian Zeus belonging to the above period. The following cuts, fig. 1 (= Seltman, Pl. VII. CP. Brussels) and fig. 3 (= Seltman, Pl. VI. CE = Jean Babelon, *Catalogue de la Collection de Luynes*, Pl. LXXXV. 2256), if compared to fig. 2 (= Type No. 1 c, M. P. Vlasto col., cf. Pl. IX. 1), will show the remarkable similarity of



FIG. 1
Olympia.



FIG. 2
Alexander.



FIG. 3
Olympia.

feeling and artistic expression between two of the finest pieces of Olympia and Alexander's stater, taking

¹¹ *Op. cit.*, p. 82.

of course into account the difference of scale and date, and making the necessary allowance between originals and a copy. Considering also that Alexander had by then conquered the Elean colonies in Epirus and must have remained in close relation with Elis, it is only natural that, when organizing his first mint, possibly at Dodona, he should have had recourse to a skilful engraver trained at Olympia, no artist in Epirus being capable of engraving such a fine head of the Dodonaean Zeus as the one displayed on his first silver stater.

It may also be noted that the small symbol on the reverse of Alexander's coins [Pl. IX. 1 and 2], the *eagle's head*, apparently strongly corroborates this view, as recalling one of the most beautiful and frequent Olympian types [cf. Seltman, *op. cit.*, Pl. V. BS, BU; Pl. VIII. 17 to 23 and 28].

We shall now briefly examine here the weight standards of Alexander's coinage.

The Weight Standard.

Gold. The exceedingly rare gold coins of Alexander follow the Attic standard which in the middle of the fourth century had practically become international, after Philip of Macedon had obtained possession of the hitherto unworked gold mines of Pangaeum (356 B.C.), and put into circulation his gold drachms and staters of Attic weight. As the writer hopes to show lower down, all the dies of the Molossian's gold coins were engraved at Taras which had adopted at an earlier date the same Attic standard for its own beautiful gold coinage.

Alexander, in all probability, struck only gold

staters or didrachms and gold obols or twelfths; at any rate no other genuine gold denomination has reached us so far.¹²

The average weight of the four gold staters, hitherto known, is 8.565 grm., including the somewhat worn Paris specimen [8.53 grm.]; the Berlin example, from the very same dies as the latter, and practically in mint condition, being the heaviest known, weighs 8.60 grm. If we allow 1 per cent. for wear, the norm must stand somewhere between 8.63 and 8.64 grm., which exactly tallies with the weight of the gold Attic and Tarentine stater.

The average weight of the eight gold obols is 0.695 grm., the heaviest weighing 0.71 and the lightest 0.65 grm. Their norm must have been about equal to that of the earliest issue of gold Tarentine obols¹³ weighing from 0.72 to 0.65 grm. and struck at Taras c. 345-344 B.C.

Silver. Alexander's silver staters follow the standard of Corcyra, which in early times employed a light form of the Aeginetan standard (11.87 to 11.01 grm.). The weight of the Coreyraean stater gradually fell until the age of Alexander, when it stood at 11.016 to 10.368 grm. It is a remarkable fact that this fall in weight occurred during the Molossian's reign.

The recorded weights of the staters catalogued above show that they range from 11.05 to 10.28 grm., with-

¹² The gold half stater (?), figured Pl. IV. 55 of G. F. Hill's "Becker the Counterfeiter", is certainly a sophistication invented by Becker. Alexander could not possibly have adopted only in this case the type of Zeus crowned *with laurel* in place of his ancestral deity.

¹³ Cf. M. Vlasto, *J. I. A. N.*, 1899, p. 311, Pl. IE' 14.

out taking into account the very poorly preserved example in the Hague cabinet weighing only 10 grm.¹⁴

The average weight of the 31 recorded staters is 10.69 grm., and the frequency-table, drawn according to the Hill-Robinson method [cf. *Num. Chron.* 1924, p. 77], points to a stater of 10.83 grm., but it must be noted that these figures include the weights of six rather poorly preserved coins, of which one is rubbed and holed and the other plated.

The frequency-table further shows that 19 staters weigh from 11.05 to 10.70 grm., with two well-marked frequency-subunits at 10.90 grm. [4 coins] and at 10.70 grm. [also 4 coins], showing that these weights are an approximation to the norm which should stand between these figures. If we add 1 per cent. for wear and oxidization, we obtain the probable norm from 11.00 to 10.80 grm. The ten lighter staters range in weight from 10.65 to 10.30 grm., with two examples of the following three weights 10.60, 10.55, 10.45 grm., pointing to an evident and regular decline of the above norm.

The only other silver denomination struck by the Molossian, as we shall see at Tarentum, are described as light Corcyraean obols by E. Babelon and others. I prefer to recognize in them Italic or Tarentine diobols. Their frequency-table shows a norm of 1.13 grm., against an average weight of 1.045 grm. for the 14 recorded examples, two of which are plated, but as most specimens have suffered a little by wear, the norm is probably to be set somewhat higher at about

¹⁴ Type 12 c, only a broken part of a stater (4.85 grm.) at Berlin, is not taken into account in this average.

1.29 grm., which tallies well with the weight of the Italic or Tarentine diobols struck from c. 334 to 330 B.C., the weight of the Italic (Tarentine) silver nomos averaging then about 7.77 grm.

It may be noted here that the purported silver drachms of Alexander the Molossian, an example of which is in the Paris collection of forgeries [wt. 5.30 grm.], are false and struck from the very same dies engraved by the notorious forger C. W. Becker for his well-known forgery of the Molossian's gold stater, a very coarse and ugly copy of the Paris genuine stater [cf. G. F. Hill, *loc. cit.*, Part I, Pl. IV. 54].

The fact that Alexander during his campaign in Italy must have necessarily remained in regular commercial and financial relations with his kingdom of Epirus is sufficient to explain why, when striking his splendid silver staters in Magna Graecia, he continued to follow the Corcyraean standard, although the latter did not tally exactly with any of the Southern Italian standards. The important Ionian shore (1908) find from Calabria [cf. S. P. Noe, 1925, *A Bibliography of Greek Coin Hoards*, p. 49], which included a very large number of Corcyraean staters, almost fresh from the mint, proves further that even years before Alexander's landing in Italy the Corcyraean staters were accepted in Magna Graecia, and could be equated with the Italic nomoi of varied local standards, with the help of the small silver denominations which were then coined in such large quantities¹⁵ in almost every Southern Italian mint. In the writer's opinion this

¹⁵ Taras struck subdivisions of the nomos ranging from the diobol to the $\frac{1}{2}$ of litra and $\frac{1}{2}$ of obol.

was the principal mode of obviating the great irregularity of the various standards which were in use, side by side, in Magna Graecia, and explains the puzzling phenomenon of finds, including closely mixed up coins of different mints and standards, of so frequent occurrence in Southern Italy.

The information we possess about the relative values of gold and silver during the fourth century is very scanty, and how the Molossian's gold didrachm exchanged against his silver stater is a difficult question, though it is fairly well ascertained that before c. 356 B.C., both in Sicily and Etruria, gold was fifteen times as valuable as silver. In consequence of the development of the gold mines of Thrace, about 350 B.C., the value of gold had fallen from 15 to 12:1, and in Macedon and in the Aegean district, after 331 B.C., we have the low ratio of 10:1, but the change in value of gold would, in all probability, be less rapid in Italy. It is difficult to follow Walter Giesecke, who, in his otherwise very valuable paper "Gold and Silver in Taras", among many ingenious conclusions, some of which I am afraid have found but scant acceptance,¹⁶ states that at Taras as early as c. 334-303 B.C. the value of gold had fallen to the ratio of 10:1, whilst the rare gold coins of Metapontion, certainly struck somewhat later than the first issue of the Molossian's gold, were to silver as 11:1, a proportion not impossible at this time. It may, however, be noted here, that should Alexander the Molossian's gold stater have been equated with ten of his silver Coreyraean didrachms, this would involve the rather higher ratio of 13:1.

¹⁶ Cf. H. de Nanteuil, 1925, *Collection de Monnaies Grecques*, p. 37.

En résumé, the weight-standards adopted by Alexander were admirably suited to all his financial requirements. His gold stater, following the then international Attic standard, besides being used to settle his inter-state claims, could be exchanged at par against the Tarentine gold didrachm, his gold obol and silver diobols further helping all the smaller and local transactions which necessitated an Italic currency; at last his silver staters of Corcyraean standard, coined in Epirus and afterwards also issued in Italy, must have found a further regular outlay for the payment of the military staff engaged by him in his fatherland before sailing to Italy at the request of the Tarentines who had claimed his assistance against the Bruttians, Lucanians, Messapians, and other allied barbarian tribes.

GROUP A.

c. 342-334 B.C.

Type No. 1 and Type No. 1 A.

As shown above, the silver staters, which I have included in Group A, are certainly the earliest struck by Alexander in Epirus [cf. Pl. IX. 1 and 2], and the noble style of these beautiful coins so closely resembles that displayed on some of the masterpieces of the Olympian mint that I have ventured to suggest that they may be the work of an engraver from Elis.

As lord of Dodona it is quite natural that Alexander should have placed on his staters the effigy of the ancestral deity of the Molossian kings, the Dodonaean Zeus, who is distinguished from other forms of Zeus

by wearing a wreath of oak, the sacred oracular tree of Dodona.¹⁷

Alexander's special signet, the *thunderbolt*, is the type of the reverse on all of his coins, and this well-known Epirote symbol or badge¹⁸ is conspicuous on most of the silver and bronze coins of the Molossi,¹⁹ some of which may have been issued when Alexander was only presiding over that tribe.

In this Group A, I have recorded six specimens, all sharing the same reverse-die, which must have been in use for a comparatively long period. Unfortunately so far no example has reached us in mint state, and we have no specimen struck from this unique reverse-die when in fresh condition.

The weights of Type 1 A, 10.90 grm., and of Type 1 A a, 11.02 grm., both in fine condition, show that the normal weight of this first issue must have been well above 11 grm. and tallied exactly with the weight of the contemporary Corcyraean staters.

Although I have not been able to ascertain the find spot of any of the above six staters, it may be noted here that Type 1 c and Type 1 A b come respectively from the Photiadis Pacha and Mavrogordato collections, both mostly formed by purchases from Athenian and Constantinopolitan coin-dealers, pointing thus as

¹⁷ Cf. Dionys. Halicar. *Ars rhetor.* i. 6 μή περίργως δὲ μηδ' αὐτὸν τὸν στέφανον παρέλθης, ὅστις εἶη· οὐδὲ γὰρ ἐν τούτῳ γενόμενος ἀπορήσεις ἐπαίνου· τὴν μὲν δρῶν, ὅτι ἱερὰ Διός, καὶ ὅτι ἡ πρώτη καὶ πρῶτον τροφή τῶν ἀνθρώπων καὶ ὅτι οἰκ ἄφρωνος, ἀλλὰ ἐφθίγξατό ποτε ἐν Δωδώνῃ . . .

¹⁸ Cf. B. M. C., *Thessaly, &c.*, Pl. XVII. 1 to 4, 8 to 11, 13.

¹⁹ Cf. E. Babelon, *Truité, loc. cit.*, Pl. CCLXXII. 18, 21, 22.—B. M. C., *loc. cit.*, Pl. XVIII. 14.

probable provenance to Epirus rather than Southern Italy.

Type 1 A, of which I have been able to trace only two examples, is certainly a later striking than Type 1. Though in higher relief and closely following its model, certain details proclaim the copy, especially the god's profile, which has lost some of the original's purity of outline.

The condition of the reverse-die when coupled with this later obverse confirms also the priority of Type 1, though I am convinced that both obverse-dies are the work of the same engraver, who seems to have followed the earlier traditions of the school of Pheidias, the majesty and dignity of the whole conception, especially on the prototype [Pl. IX. 1], being quite remarkable and worthy of an earlier date.

The diversity of fabric of the six staters recorded above is considerable, their size ranging from 21 to 25 mm. Type 1 b is struck on a thick and small flan, whilst Type 1 d is well spread on a thin flan. We shall notice that many of Alexander's silver staters included in later groups reveal a similar diversity in fabric which can only be explained by the *transfer of his dies to various mints*.

Historical data do not preclude the possibility of Alexander striking some of the above staters at Ambracia, whence he sailed for Italy c. 334 B.C. There exists a small group of Ambracian pegasi²⁰ on which the Corinthian head of Athena is enclosed in a wreath with a *thunderbolt* in the field to left. This symbol, in

²⁰ B. M. C., *Corinth*, p. 109, No. 51, Pl. XXIX. 7, and E. Babelon, *Traité*, p. 139, No. 303, Pl. CCLXXXII.

fact the Molossian's own signet, in the writer's opinion, may itself be regarded as sufficient ground for bringing these pegasi into relation with the Epirote adventurer, and should be considered as a direct tribute to Alexander during his stay at Ambracia, where he may well have obtained the use of the Ambracian mint for striking some of his own staters.

GROUP B.

c. 334 B. C.

Types Nos. 2, 2 A, and 3.

When B. Head in his second edition of *Historia Numorum* wrote that some of Alexander's staters may be the work of a Syracusan engraver,²¹ no doubt this opinion was prompted by the beautiful stater [Pl. IX. 3] the British Museum had purchased at the Montagu (1896) sale, which has much affinity with many Syracusan coins struck after c. 345 B. C., under Timoleon, some of which are represented on Pl. B (Nos. 15 to 19 and 21) by the late F. Imhoof-Blumer in his *Monnaies Grecques*.

The following cut, figs. 4, 5, giving the obverse of the splendid and unique Syracusan didrachm, in the Naples Cabinet,²² will show at a glance that Alexander's stater [Type No. 2 A] and this Syracusan gem follow indubitably the same inspiration. This new type of Zeus, with undulating hair, short and curled beard, recalling again the earlier Pheidian manner, is to be frequently

²¹ Cf. *supra*, note no. 11.

²² *Mus. Naz. di Napoli*, No. 5362. Inscribed on obverse **ΙΕΥΣ**
ΕΛΕΥΘΕΡΙΟΣ, reverse **ΣΥΡΑΚΟΣΙΩΝ** Pegasus to l. beneath
Σ. R 21 mm., wt. 8.50 gm.

met in sculpture during the first part of the fourth century, and the colossal statue known as *Jupiter de Versailles* (but possibly Poseidon), in the Louvre,²³ is strikingly near akin to the Syracusan and Alexander's coins figured above. It is, however, well ascertained that Alexander signalized his arrival in Italy by issuing



FIG. 4
Syracuse.



FIG. 5
Alexander.

coins both in gold and silver in his own name, and, as generally assumed, that the great bulk of them were struck at Taras.²⁴

When trying to find which may be the mint-place of Alexander's above stater [Pl. IX. 3], I at once noticed that its design followed very closely Type No. 1, and especially Type No. 1 A, whilst its gem-like style and high relief betrayed a distinctly Italo-Greek character. I surmised then that Type No. 2 may possibly be a copy of Type 1 A engraved by a Tarentine copyist whose personal inspiration was trammelled by the fact that he had to follow closely a type entirely new to

²³ Bouillon, i, 1; Müller-Wieseler, *Denkm.*, ii, 4; Overbeck, *Kunstmyth. Atlas*, Pl. 2, 15, 16; Zeus, p. 83, No. 14. Furtwängler, *Masterpieces*, London, 1895, p. 104, fig. 45.

²⁴ Cf. F. Lenormant, *loc. cit.*, p. 39; B. Head, *Coins of the Ancients*, p. 66; J. Millingen, *loc. cit.*, p. 110; Percy Gardner, *The Types of Greek Coins*, p. 150; Sir Arthur Evans, *op. cit.*, p. 85, &c.

him. I could not possibly admit that any Syracusan engraver, accustomed to long legends such as **ΙΕΥΞ ΕΛΕΥΘΕΡΙΟΣ**, could have engraved on the reverse-die **ΑΛΕΞΑΝΔΡΟΥ ΤΟΥ ΝΕΟΠΤΟΛΕΜΟΥ** in such an awkward and sprawling manner, whereas it is only natural that a Tarentine engraver accustomed to work on smaller dies confronted with such an unusually long inscription should have dismally failed at his first attempt. However, this very tentative attribution of Type No. 2 to the Tarentine mint was soon to be happily confirmed by more conclusive evidence, the discovery at Taranto (1923) of the remarkable plated stater figured Pl. IX, No. 5, and described above under Type No. 3 of Group B.

Plated coins having obviously only a limited circulation supply a very safe topographical clue, and this unique coin is the *trait d'union* or missing link between Types 1, 1 A, and 2. Its design, somewhat coarse, as might be expected, follows the obverse of Type 1 A very closely, even in the minutest details, such as the waves of the hair and curls of the beard. Besides the well-ascertained provenance of this stater from Taranto, its reverse offers as symbol a small *dolphin* in the field to the left of the upright thunderbolt, in place of the small eagle, with folded wings, which on Type No. 2 had taken the place of the Olympian eagle's head of the first issue. A similar small eagle is to be found on all the Tarentine *nomoi* struck during Alexander's hegemony.²⁵ This latter characteristic Molossian device occurs on some of the autonomous bronze coins of the Molossian Commonwealth probably issued immediately before Alexander's

²⁵ Cf. Evans, *op. cit.*, Pl. V. 1 to 4 and p. 88, Per. V, Type A 1 to 8.

time.²⁶ The find at Taranto of the unique and hitherto unpublished plated stater with the dolphin luckily corroborates my first opinion that Types Nos. 2 and 2 A of Group B were also minted at Taras, the dolphin being the truly *hieroglyphic* symbol and well-known distinctive mint-mark of Taras. The four examples recorded under Group B share all the same obverse-die. The condition of this die shows that the die-coupling No. 2 A [Pl. IX. 4] is a later striking. This new attempt to improve the inscription by engraving it upwards each side of the thunderbolt failed again most wretchedly. Group B may safely be dated c. 334 B.C., that is, immediately after the establishment of Alexander's head-quarters at Taras.

GROUP C.

c. 334-332 B.C.

Types Nos. 4, 5, 6, 7, 8.

That the most exquisite gold and silver coins of Alexander, included in Group C, were engraved at Taras the writer hopes to establish as a well-ascertained fact. Sir Arthur Evans has shown²⁷ that we possess direct numismatic evidence that the Molossian concluded, about the year 334, a monetary convention with the Tarentines, in which other cities joined. As we have already noted above, the Tarentine *nomoi* contemporary with Alexander's arrival are characterized by the addition in the field of their reverse of

²⁶ B. M. C., *loc. cit.*, p. 101, Nos. 1, 2, and Pl. XVIII. 13. E. Babelon, *loc. cit.*, Pl. CCLXXXII. 19-20.

²⁷ Evans, *op. cit.*, p. 84.

the Molossian symbol: *the seated small eagle with closed wings*.²⁸ A similar complimentary allusion to the advent of Dodona's lord in the city of Taras is to be found on the also contemporary Tarentine gold issues,²⁹ but in this case it is Alexander's own signet, *the thunderbolt*, which is adopted as a symbol.

We shall now examine the obverses of the magnificent gold and silver staters figured Pl. IX. 6, 7, 8, 12, and 15, described under Group C. The head of the Dodonaean Zeus on the splendid and well-known gold stater in the British Museum [Pl. IX. 6] is rightly considered by P. Gardner as one of the most perfect creations of the die-sinker's art, and no doubt is the prototype of the whole group. As B. Head had remarked with his usual acumen of judgement, this noble head differs not a little in expression from the beautiful and more lifelike representation of the god on the Hunterian gold stater [Pl. IX. 7]. The Paris and Berlin examples [Pl. IX. 9 and 8], which are both struck from the same obverse die, follow much closer the London coin. That nevertheless all the above gold staters are from the very same hand can hardly be disputed, their gem-like finish, charming relief, magnificence of style, and minute delicacy of engraving being strikingly similar, and suggesting identity of handiwork. The recent discovery in the neighbourhood of Taranto of two truly brilliant Molossian silver staters, now in my cabinet, one of them belonging to this group [Pl. IX. 12], luckily comes to confirm the

²⁸ Evans, pp. 87, 88, Pl. VI. 1 to 4.

²⁹ Evans, p. 85, Pl. V. 3 and 5. M. P. Vlasto, J. I. A. N., *Les Monnaies d'Or de Tarente*, p. 316, Pl. IE' 17 to 21, and *Num. Chron.* (1907), Pl. X. 14.

opinion expressed long years ago by Lenormant, Head, P. Gardner, Sir Arthur Evans, and others, proposing Taras as the probable mint for the issue of the British Museum gold stater.

The beautiful silver coin, figured on Pl. IX. 12, although showing much affinity to the latter, is still more closely related to the Hunter gold stater by many of its minutest details, such as the identical small curls of the beard, the delicacy of the design of the flowing hair, the individual outline of the nose, as well as the god's majestic yet genial expression, which are strikingly similar on both coins.

It is only quite recently that the Paris example of this type [Pl. IX. 13], with the obverse struck from the same die, has been published in the lamented E. Babelon's last contribution to his invaluable *Traité*. Unfortunately much of its beauty is impaired by defective striking and, being re-struck on a Corcyraean stater of abnormally large flan, the head of Zeus appears rather flat. The Cambridge example, only tolerably well preserved, but still charming [Pl. IX. 14], pending the publication of volume ii of Mr. S. W. Grose's catalogue of the McClean collection in the Fitzwilliam Museum, and hitherto only known from Pl. III, No. 105, of the Earl of Ashburnham's sale catalogue, as well as the very much worn specimen in the Athenian collection, had so far attracted but little attention, and no numismatist had noted, owing to their condition, how closely they were related to one of the gold Molossian staters.

These four silver coins are struck from a single obverse die coupled with three different reverse dies, only the Cambridge and Athens examples sharing the same reverse-die.

The also very beautiful, but somewhat worn, all but unique, silver stater from the Copenhagen cabinet, published here for the first time [Pl. IX. 15], is closely connected with the Paris-Berlin gold staters. However, on this new die the over-luxuriant development of the god's flowing hair, streaming to the wind, upwards and downwards, is one of the most typical Tarentine *argutiae minutiarum* paralleled on the finest Tarentine nomoi, signed by the artist ΚΑΛ, and issued c. 344-334 B. C. [Evans, Period IV], on which the horse's manes are seen curling up in regular series of wave-like crests [Evans, Pl. IV. 9-11]. It is important to note here that, for the chronology of the Tarentine coinage, I am following the dating first established by Sir Arthur Evans in his celebrated monograph "The Horsemen of Tarentum", and not the more recent one, as modified by him, in the *Numismatic Chronicle*, 1912 [cf. p. 218, note, No. 61]. I shall show, when examining the deposit date of the 1904 Carosino hoard, why the former dating must still hold the field.

As early as 1822 James Millingen³⁰ had rightly attributed to the Tarentine mint the very charming and very rare gold Molossian obols, showing on the obverse side an *almost full-faced* rayed head of Apollo Helios, and on the reverse a thunderbolt [Pl. IX. 10, 10a, 11], remarking how closely they resembled the Tarentine³¹ minute gold hemilitron displaying the same types, another Tarentine complimentary allusion to Alexander's advent.

That the contemporary similar Molossian silver

³⁰ *loc. cit.*, p. 11.

³¹ Cf. Evans, Pl. V. 5, and M. P. Vlasto, *loc. cit.*, Pl. IE' 19, 21.

diobols [Pl. X. 1 to 6] were also struck at Taras is further conclusively proved by the well-ascertained fact that, among the fourteen recorded examples, two were found at Taranto (1896, 1921), and a third between Brindisi and Taranto (1871).

This pretty little type, as first shown by Sir Arthur Evans, has much in common with the *three-quarter facing* head of the youthful Dionysos, ivy crowned, on an almost unique Metapontine silver stater,²² signed by the engraver **KAA**, and I have myself²³ shown that Alexander's above-named small gold and silver coins are both to be referred to the same Tarentine artist **KAA**.

As noted above, the type of the reverses of all the Molossian's gold and silver coins is invariably his own private signet, the sometimes horizontal but more often upright thunderbolt. In the arrangement of the plates I have followed the position of the thunderbolt as indicated by the auxiliary symbols, the directions of the inscription being often of no help, as they vary at random [cf. Pl. IX. 3 and 4, Pl. X. 9 and 11, &c.] and give no reliable indication.

The gradual improvement in the design of this conventional thunderbolt is most remarkable. On the earliest silver staters, struck in Epirus [Pl. IX. 1 and 2], the design is somewhat immature and unbalanced. The immediately following issue [Pl. IX. 3, 4] shows a notable improvement, but it is only in the subsequent important Group C, including the Molossian's gold coinage, that the thunderbolt's design reaches exact and

²² Cf. R. Jameson Cat., Pl. XIV. 290 [ex A. J. Evans col.], and Garrucci, T. civ. 3 (Santangelo-Naples collection) = M. P. Vlasto, J.I.A.N., 1901, Pl. S' 16.

²³ J.I.A.N., 1901, p. 107.

beautiful workmanship. On these coins each half of the thunderbolt consists of a trefoil lotus-like flower or open lily [*πυρὸς ἄνθος*] enclosing a large distaff-like twisted dart, on either side of which protrude a waved and a plain flame line.²⁴ On the finest examples [Pl. IX. 6, 7, 12, 13, 15] of this issue three well-defined and delicate mouldings are to be seen around the handle. The elegantly modelled petals of the above fire-flowers, their delicate ornamentation, on both the gold and silver prototypes depicted Pl. IX. 6 and 12, are again of typical Tarentine art belonging to the best period.

The delightful little eagle symbol [Pl. IX. 12 to 15], if examined under the magnifying glass, is truly of the most surprising gem-like accuracy, even such small details as the bird's eye-sockets and the minute feathers round its neck being most carefully indicated with consummate art. This fondness for naturalistic representations finds again its appropriate parallel on the finest Tarentine nomoi, signed by ΚΑΛ or ΦΙ, struck immediately before the arrival of Alexander in Italy, 345-334 B.C.

Two other auxiliary symbols appear on the Molossian's gold staters: the *lance-head* and the *star* or *rosette* [Pl. IX. 8 and 9]. Sir Arthur Evans has noted that the former, a very characteristic Æacid²⁵ badge, became at a later period a recognized type of the autonomous Epirote mints, and that this special badge

²⁴ For a close study of Greek conventional thunderbolts cf. P. Jacobsthal, *Der Blitz in der orientalischen und griechischen Kunst* (Berlin, 1906), p. 24, and C. T. Seltman, *op. cit.*, p. 105.

²⁵ Cf. Leonidas (cxxxiv. 4) in his epigram on Pyrrhus "Ἀλχηραὶ καὶ εὖν καὶ τριπὸς Ἀλακίδαί"; cf. Evans, *op. cit.*, p. 142, note 172.

is a frequent symbol on the Tarentine gold and silver coins struck during the subsequent Pyrrhic hegemony.

On the other hand the *star* symbol, in the writer's opinion, should more probably be considered as only a distinctive Tarentine *marque d'atelier*. A star in fact figures in the field, above the initial **†**, on the reverse of the famous Tarentine gold stater [Pl. XI 14, British Museum], struck c. 340 B.C., exhibiting the infant Taras raising his arms, in suppliant guise, to his father Poseidon, who, seated on his throne, inclines his head towards his beloved son. The very minute **K** which appears within the throne is, as shown by Sir Arthur Evans, the abbreviated signature of the engraver **KAA**. This picturesque group is found again repeated on the unique gold stater in the Santangelo collection at Naples,³⁰ struck during the Molossian's alliance, the *thunderbolt* taking on this die the place of the *star* mint-mark. This reverse, which has lost some of the prototype's excellence, is now signed **M** within the throne and initialled **†** and **Φ** by two fellow artists, from the same *atelier*, acting possibly as mint officials.

The late Warwick Wroth, when publishing the splendid British Museum Tarentine stater above mentioned [Pl. XI. 14], had pointed out the remarkable resemblance, especially in the treatment of the hair and expression of the seated Poseidon, "who has the mild expression of Zeus", with the Molossian's London gold stater. P. Gardner and others have also laid much stress on the close likeness between the head of

³⁰ M. P. Vlasto, *loc. cit.*, Pl. 1E' 17, and Fiorelli, *Catalogue of the Santangelo Collection*, No. 2290.

the Dodonaean Zeus and the exquisite veiled head variously interpreted as Persephone-Gaia, Hera, Aphrodite, or Amphitrite, on the early Tarentine gold issues.

A similar star mint-mark is again to be found on the very beautiful and all but unique³⁷ Tarentine gold stater, of Macedonian type, reproduced on Pl. XI. 15, from a brilliant example in my collection, and on other kindred gold thirds of a stater³⁸ belonging, if not actually to the time of Alexander's expedition, certainly to the years immediately following.³⁹

The writer must now ask his readers to excuse the following digression from the main object of this paper, but its purpose is not quite out of place as having a special bearing on the present subject and strongly corroborating the preceding somewhat lengthy argumentation pointing to the conclusion that all the Molossian's gold and silver coins, bunched together under Group C, are the work of the Tarentine artist **KAA**, whose very existence as engraver has been lately challenged on quite insufficient grounds by Mr. S. W. Grose.⁴⁰

³⁷ B. M. C., *Italy*, No. 11 = M. P. Vlasto, *loc. cit.*, Pl. IS' 12.

³⁸ Cf. M. P. Vlasto, *loc. cit.*, Pl. IH' 13 to 15.

³⁹ Evans, *op. cit.*, pp. 81, 82. The same star appears on a somewhat later gold stater associated with the signature **ΞΑ**. Evans, Pl. V. 14 = M. P. Vlasto, *J.I.A.N.*, Pl. IS' 5.

⁴⁰ Cf. *Num. Chron.* (1917), p. 187, in *Primitiae Heraclenses*. A now very long personal experience of the Tarentine coinage has convinced the author that all Sir Arthur Evans's conclusions regarding the signatures of engravers, as expressed p. 105 of his "Horsemen of Tarentum", must still hold good. Most of the criticisms hitherto put forward are unconvincing and do not take into sufficient consideration the true character of the artist signatures at Taras and other Magna Graecian mints, where the engravers, down to c. 315 B.C., had to sign both as monetary officials and as

Hereunder follows the description of a few extremely rare and very beautiful Tarentine nomoi, which for technical execution and minute attention to detail are unrivalled. Some of them may be new to many of our readers and are not figured or described with sufficient detail in the *Horsemen of Tarentum*. They all belong to the finest period of the signed coinage of Taras and are signed, *en artistes*, by $\text{K}\Lambda\Lambda$ or other engravers from the same atelier. In many cases the concatenation of their dies justifies the following classification.

I.

Obv.—Naked boy-rider, crowned by Nike, on prancing horse to r., which is embraced by another naked boy whose head, with curly hair, is facing three-quarters to r. Beneath horse K .

Rev.— $\text{T}\Lambda\text{P}\Lambda\text{Σ}$ (\curvearrowright to r.). Taras, the head with curly hair facing three-quarter to l., seated sideways on dolphin to r., turning back to aim his trident at a fish. In f. to l. Ξ [$\text{Ξ}\text{E}$] and under Taras's r. arm a square raised tablet. *The whole design enclosed in a circle of waves.*

a. R 22 mm. Wt. 7.29 grm. Paris, Cabinet des Médailles (not fine) = A. J. Evans, IV, Type F. 2, presumed unique.

I a.

Obv.—Similar, but the type smaller.
Beneath horse Ξ [$\text{Ξ}\text{E}$].

Rev.—From the same die as I.

artistes, both types of signing being often illustrated on the same piece. [Cf. Evans, "Engravers of Terina and Signature of Evae-netos", *Num. Chron.*, 1912, p. 40.] However, the new dating of the Carosino hoard as given p. 222 will allow Mr. S. W. Grose to reconsider most of his conclusions regarding $\text{K}\Lambda\Lambda$ &c., based on a wrong starting-point, *mea culpa* as we shall see.

- a. *R* 22 mm. Wt. 7.70 grm. M. P. Vlasto [Pl. XI. 10],
ex Greenwell and Warren cols. = K. Regling, *Samm-
lung Warren*, No. 34, Pl. I.
- b. *R* 21 mm. Wt. 7.57 grm. M. P. Vlasto, from the
A. Cantone col. (very fine, with the reverse well
centred).
- c. *R* 22 mm. Santangelo, Naples = A. J. Evans, IV, F. 1,
Pl. XI. 6.
- d. Vienna col.? Cf. Carelli's *Description*, No. 241.

II.

Obv.—Naked boy-rider, the hair streaming to the wind and
curly, crowning stationary horse to r. which raises
off foreleg, and followed by flying Nike extending
a lemniskos.

Beneath horse *AP*, in exergue *K*[*KAA*].

Rev.—*TAPAΞ* (λ to l). Taras, as on above type I, but aiming
trident at cuttle-fish and no square tablet. In f. to
l. *K* [*KAA*].

- a. *R* 23 mm. Wt. 7.75 grm. M. P. Vlasto [Pl. XI. 11],
found at Brindisi 1920.
- b. *R* 22 mm. Wt. 7.91 grm. M. P. Vlasto (*f. d. c.*
but not well centred), from the Schieffelin sale =
J. I. A. N. 1898, pl. Z' 13.
- c. *R* 23 mm. Wt. 7.75 grm. Copenhagen (*f. d. c.* but
the *K* on obverse off flan).

II a.

Obv.—From the same die as II.

Rev.—Same, but Taras striking with his trident at tunny-fish.
In f. to l. *K* [*KAA*].

- a. 22 mm. Wt. 7.45 grm. Cl. Côte (Lyons).
- b. 20.5 mm. Wt. 7.30 grm. M. P. Vlasto, cf. Evans, IV,
Type A 1, from Garrucci, T. cxviii. 28, with *K*
omitted.

II b.

Obv.—From the same die as II and II a.

Rev.—Taras, the head, with flowing curly hair, *facing three-quarter to l.*, seated sideways on dolphin to l., extending with r. hand one-handled vase, his chlamys, caught under both arms, streams to the wind. Beneath Κ and waves (?).

- a. AR 22 mm. Wt. 7.72 grm. Berlin [Pl. XI. 12 reverse only] = H. Dressel, *Beschr. der ant. Münzen*, III, Taf. XIII. 191, where the monogram on reverse is read Ν (?), re-struck on a Corinthian Pegasos. This reverse die is presumed unique.

III.

Obv.—TAPANTINΩN in very small letters, ς in field to r. and above. Small naked boy, the *head three-quarter facing to r.*, standing to l., the feet wide apart, and almost hidden behind a taller naked dismounted epebos, fastening the latter's close-fitting cuirass beneath his uplifted r. arm. In f. to r. bridled horse, the head turned to r., waiting to be mounted.

Beneath horse in minute letters ΚΑΛ
ΞΕ, in f. to l.
Δ
└, border of dots.

Rev.—TAPΑΣ (ς in f. to r.). Taras, the hair bound with fillet, astride on dolphin to l., his further leg outlined in front of dolphin's head. He holds in his l. hand a small round shield, displaying a *winged griffin* and two lances. He extends his r. to receive a small wreath-bearing Nike. Beneath in minute letters ΚΑΛ and curling crests of waves.

- a. AR 22 mm. Wt. 7.84 grm. Berlin [Pl. XI. 13] = Hirsch XVI sale (1906), No. 37, Pl. II = K. Regling, *Die antiken Münzen*, Berlin, 1909, p. 19, fig. 1. This obverse die is presumed unique.

IV.

Obv.—**TAPANTINΩN** in very small letters (∞ above).
The Dioskuri cantering to left, the second rider, with
chlamys streaming to the wind, holds in his l. hand
an upright distaff (?), or more probably a *bacchos*
(βάκχος).
Beneath second horse is microscopic letters **KAA**.
In f. to l. **ΞΕ**, and lower down beneath the first
horse **Δ**. Border of dots.

Rev.—From the same die as III.

- a. 21 mm. Wt. 7.80 grm. M. P. Vlasto [Pl. XI. 17],
from the Elliott sale.
- b. 21 mm. Formerly in the G. Nervegna collection.⁴¹ The
present locality of the coin is unknown = Evans,
IV, Type K. 1 [not quite accurately described].

IV a.

Obv.—Same type but larger, and of charming style. The
Dioskuri have their hair tied with fillets.
Beneath second horse to r. in minute letters **KAA**.
In f. to l. **ΞΕ**, and beneath first horse to l. **Δ**, and
lower, towards r., **†**. Border of dots.

Rev.—From same die as III and IV.

- a. 22 mm. Wt. 7.45 grm. M. P. Vlasto [Pl. XI. 16],
from the O'Hagan sale [Sale Cat. Pl. I. 38], ex
Bunbury sale.
- b. 23 mm. Wt. 7.82 grm. M. P. Vlasto, from the
O'Hagan sale, lot No. 33 (not quite so fine as the
above example, but well spread and complete).
- c. 22 mm. Wt. 7.82 grm. Copenhagen [fine].
- d. 22 mm. Wt. ? E. T. Newell [very fine, but a later
striking, the reverse die badly cracked].

⁴¹ The late Signor Nervegna had kindly given me in 1899 a cast
of this nomos, then presumed unique, from the same dies as IV a.

V.

Obv.—**TAPANTINΩN** (↻ above in very small letters). Naked horseman in crested helmet to l., holding in his l. hand behind him two lances and a round shield, on which is a winged hippocamp. In front a winged Nike, the head facing *three-quarters* to r., clad in diploidion, advancing l. turns half round and seizes the rearing steed by the rein and forelock.

Beneath horse, in minute letters, ^M**KAA**.⁴²

In f. to r. **†A**, and in f. to l. **Φ**.

Rev.—**TAPΑΣ** (↘ to l.). Taras astride &c. to r., throwing forward l. leg, hurling dart with r. and in his l. holding two spears, while his chlamys, caught on his l. arm, streams to the wind. Beneath in microscopic letters **KAA** and curling crests of waves.

a. *R* 21.5 mm. *Wt.* 7.87 grm. M. P. Vlasto [Pl. XI. 18], from the Ed. Aynard sale, Paris, 8/12/1913, lot No. 4 = A. J. Evans, IV, Type G 1 (Evans, Pl. IV. 7) (British Museum).

Though very rare several other specimens are known.

V a.

Obv.—From *same die* as V.

Rev.—Same, from another die [as Pl. XI. 19].

R 21 mm. *Wt.* 7.48 grm. M. P. Vlasto from the Luneau sale, 28/3/1922, lot No. 74, Pl. II. 74.

VI.

Obv.—Helmeted hippakontist on horse galloping to r., followed to l. by a small wreath-bearing Nike.

Beneath in minute letters ^Φ**†M**

Rev.—From the same die as V a.

⁴² This **M** on some examples appears like **W**, the upright projection to l. is only a small flaw of the die. Cf. *Beschr.*, Berlin, p. 242, No. 100.

R 20.5 mm. Wt. 7.46 grm. M. P. Vlasto [Pl. XI. 19],
from the Taranto June (1919) find; cf. S. P. Noe,
Greek Coin Hoards, p. 207. Presumed unique.

VII.


Obv.—Same type and same signatures. A small *star* to l. in the field between Nike's wreath and rider. [Large die-fracture following the horse's body.]

Rev.—TAPAΞ (¼ in f. to r.). Taras astride &c. to l. extending one-handle vase. Beneath waves. [This reverse is a revival of later style as Evans, IV. F. 3.]

R 20 mm. Wt. 7.90 grm. Cl. Côte (Lyons) [Pl. XI. 20],
from the same Taranto June (1919) find. Presumed
unique.

All the above nomoi rank alike for design and execution amongst the most perfect products of the Tarentine mint, and, with the exception of the obverses I a [Pl. XI. 10], VI a [Pl. XI. 19], and VII, supply us with the most convincing examples of the engraver's KAA signature, *en artiste*, on Tarentine coins.

Owing to the extraordinarily fine and absolutely *fleur de coin* preservation of the nomos now in my collection, reproduced on Pl. XI. 10, I have been able to detect, under the magnifying glass, that the signature which is to be seen both on its obverse and reverse, hitherto read **II**, is a monogram **IE**. This simple linking of a couple of letters **IE** (the **E** retrograde) is happily confirmed by the signature **IEE**, in microscopic letters, added on the obverses III [Pl. XI. 13], IV, and IV a [Pl. XI. 17, 16], associated with the minute signature of the engraver KAA. Very probably this new signature **IEE** belongs to a pupil and follower of KAA's gem-like and charming style.

A close examination of a cast, kindly given to me years ago by my late friend, E. Babelon, of the presumed unique Paris example described under I, no doubt the prototype or master-die of Ia, shows that the initial **K** [cf. Evans, IV, Type F 2] must certainly represent the abbreviated signature of the artist **KAA**. Sir Arthur Evans has shown the close collaboration of this engraver at Taras in his earlier days with the engraver Aristoxenos of Metapontine and Herakleian fame. Such a collaboration is confirmed by the presence of the monogram **K** = **KAA**, a new form of this signature associated with the **AP** of Aristoxenos on a truly splendid⁴³ obverse die II [Pl. XI. 11], found coupled with three different reverses of almost unrivalled merit, II, II a, and II b [Pl. XI. 11 and 12], all signed with the same monogram **K** and not **K** as hitherto read. No doubt it is the engraver **KAA** who first introduced in the Tarentine mint the fashion of signing with a monogram, and this *nomos* [Pl. XI. 11] corroborates his earlier association with Aristoxenos, whose signature appears at times on some of his Metapontine masterpieces as **AP** or  [cf. R. Jameson Collection, Nos. 275-276]. I have in my cabinet many Tarentine diobols of surprising beauty, from the Carosino hoard, all

⁴³ The obverse represented [Pl. XI. 11] has slightly suffered from oxidization. Its great beauty may be better observed of my other example depicted Pl. Z' 13, J. I. A. N., 1898, though faultily struck; the splendid preservation of this coin enables us to appreciate the gem-like quality of the work, even the minutest details, such as the rider's toes and the veins of the horse, which are clearly visible. No doubt on this die the large signature **AP** shows that Aristoxenos has signed also as a responsible monetary official.

signed with a microscopic **K** on their reverse between the legs of Herakles contending with the lion, at times associated with obverses initialed **A**, no doubt standing for the signature of Aristoxenos. The reverse of one of these diobols displays the signature **KAA** under a new form **⚡** [**KAA** retrograde], which is also to be met on a slightly different diobol in the Berlin cabinet [*Beschr.*, III. Taf. xiv, 224] and on one of the very latest Tarentine nomoi engraved by **KAA**, represented in my collection by a fine and unpublished variety, from the Hartwig sale [lot No. 103], but in this case the monogram is inverted **⤵** = **KAA** [cf. Evans, Period V, Type B, 12 and 13]. This type cannot have been struck later than 330 B.C., and marks the end of the activity of this engraver. I have also in my cabinet a little silver $\frac{3}{4}$ of obol (wt. 0.49 grm.), which Sir Arthur Evans prefers to call obol, in mint condition, formerly in the Nervegna collection, of the following types. *Obv.* Horse's head to r. In f. to r. **K**. *Rev.* Horse's head to l. In f. to l. **†** | [cf. Carelli, *N.I.V.T.*, cxvii, 334]. The minuteness and beauty of the engraving of this little gem is truly amazing.

Owing to the kindness of Dr. K. Regling I am able to give on Pl. XI. 13 the reproduction of the presumed unique and wonderful nomos in the Berlin Museum described above (III), and to give here for the first time the correct reading of the initials **Δ†** and **ΞΕ** associated with the minute signature **KAA**. It is only through an unfortunate slip of the die that the horse's legs are somewhat distorted and appear unduly long. This admirable group strongly recalls another beautiful Tarentine type described by Sir Arthur Evans under his IV, Type L 1 [Evans, Pl. IV. 8] with the signatures

† Δ ΚΑΛ, coupled with a reverse signed in microscopic letters ΦΙ.⁴⁴

The Berlin obverse die can have been in use for only a very short time, the Tarentines possibly objecting, quite unjustly, to such a bold innovation of their favourite engraver, and this real *tableau de genre* was never to be imitated at a later date like most of the other finest types of the best period. The very short duration of this die is further proved by the immediate use of the also beautiful reverse die, at first coupled with the Berlin coin, while still in brilliant condition, with two new obverse dies, displaying the remarkably spirited and exquisite group of the mounted Dioskuri, better known from the rather common imitations of inferior style struck much later [Evans, Pl. VIII. 9]. On the first die IV [Pl. XI. 17] the signatures are ΞΕ Δ ΚΑΛ, but on the second die of this new type [Pl. XI. 16] the signatures represented are identical with those met on the extraordinary Berlin nomos III [Pl. XI. 13], including the † which we have noticed on the contemporary gold stater initialled by ΚΑΛ [Pl. XI. 14].

The object held by the second Dioskuros is rather difficult to determine. On die IV, on a close examination of my example and of the cast of the Nervegna coin now lost,⁴⁵ this distaff-like object has the appear-

⁴⁴ It may be pointed out here that this signature, which according to Evans stands for ΦΙΛΙΣ, has nothing in common with the ΦΙ met at Taras on nomoi belonging to much later periods as Evans, Pl. IX. 7 [Per. VIII, 272-235 B.C.], or Type viii, B 2, and some of the finest Campano-Tarentine types, hundreds of Greek names beginning by ΦΙ or ΦΙΛ.

⁴⁵ This coin is not to be found in the catalogue of the 1907 Nervegna sale, and Dr. Arthur Sambon, on my inquiry, had informed

ance of a flaming torch, and I am inclined to describe it as a *bacchos*, a fitting attribute for a Dioskuros.⁴⁶

The sequence of the issue of the above nomoi III, IV, and IV a, all sharing, as we have seen, the same reverse die, is conclusively established by the condition of the last, the E. T. Newell example, otherwise very fine, being struck from the reverse die now badly worn and cracked.

The well-known admirable and highly finished group figured on Pl. XI. 18, again signed *en artiste* by **KAA**, apparently is initialed by all his fellow engravers, with the only exception of **ΞΕ**; for the well-spread example, now in my collection, displays, besides the hitherto noted initials **M**, **Γ**, **A**, also a minute **Φ** to the left of Nike's wing, all the engravers in the *atelier*, presided over by **KAA**, taking pride in this masterpiece and giving thus a clear example of artistic collaboration. This obverse die is found coupled with two almost identical reverse dies [Pl. XI. 18 and reverse of 19], the second of which links it to an entirely new type VI for this period, depicted on Pl. XI. 19, associated with the microscopic signature **ΦΙ** and the initials **Γ.Γ.Μ**.⁴⁷ It is needless to dwell here on the close association of the engravers **KAA** and **ΦΙ**, which has been well established by Sir Arthur Evans. This

me before the sale that the coin could not be traced. Possibly owing to the fact that this type is described in "The Horsemen" by a slip of the pen "Two Dioskuri cantering to right, the Nervegna coin may have been confused with the later type and included in the miscellaneous lot 349.

⁴⁶ Cf. Saglio, *Dict.*, *Bacchos*, p. 570, and Svoronos, *J. I. A. N.*, 1901, p. 27, Pl. II' and 1Δ'.

⁴⁷ This signature **M** has already been noted on the Santangelo gold stater (cf. p. 192) and above on the nomos figured Pl. XI. 18.

unpublished, hitherto unique, new type displaying a Tarentine hippakontist brandishing a short javelin, as well as the similar also unique nomos VII [Pl. XI. 20] of somewhat later style, must belong to the very last years of Evans, Period IV, c. 334, and may have been struck immediately before the arrival of Alexander the Molossian in Italy.

Both the above nomoi come from the small Taranto (June 1919) find which included, according to information received from a friend, an example of Evans, Pl. VI. 9, in brilliant mint condition, as well as a very fine specimen of *Berlin Beschr.* III, Pl. XII. 187, now in the Cl. Côte collection, which were both struck at the end of Evans, Period V [334-302 B.C.]. The very beautiful and rare Metapontine silver stater⁴⁸ included in the Naville IV Sale, No. 80, Pl. III, is from this same find. The correct reading of the initials on the obverse of this charming type is ξ -A and not Y-Λ as given by the compiler of the catalogue. This signature ξ A is associated with some of the finest Tarentine horsemen⁴⁹ of Evans, Period V, thus corroborating the above date. The other Metapontine types, included in this small find were, besides a good example of the well-known tetradrachm, struck c. 334-330 B.C., two extremely fine didrachms, one as *Num. Chron.* (1918), Pl. VI. 1, the other as B.M.C., *Italy*, p. 253, No. 118.

It is quite possible that the Tarentine nomos VI [Pl. XI. 19], which has lost weight from very superficial oxidization, may have also originally displayed

⁴⁸ Cf. J. Babelon, *De Luynes Cat.*, Pl. XVIII. 498.

⁴⁹ Evans, *op. cit.*, pp. 114, 116.

the *small star* visible on VII [Pl. XI. 20], as the surface of my coin is very slightly eroded just where the star appears on the nomos in the Cl. Côte collection. From its unusual position the writer prefers to consider this star as the Tarentine *marque d'atelier*, noted above on closely allied gold coins, rather than the badge indicating that the helmeted rider, followed by the small wreath-bearing Nike, is one of the Dioskuri, this hippakontist type having been revived, but without the star, on many subsequent issues.⁵⁰

There is no doubt that it is the engraver **KAA** who first introduced in Magna Graecia, on the Tarentine, Metapontine, and Molossian's coinage the Sicilian fashion of representing facing heads; and the exquisite diminutive little faces, at times turned slightly to right, at times to left, on the gem-like charming coins reproduced Pl. XI. 10, 11, 12, 13, and 18, are an unparalleled *tour de force* in Greek numismatics.

After this long digression the writer has but few lines to add regarding the Molossian's gold and silver coins recorded under Group C, which were all engraved, in his opinion, by the Tarentine artist **KAA**, it being only natural that Alexander, possibly not quite satisfied with his previous issue (Group B), after establishing his head-quarters at Taras, should have chosen the artist **KAA** to design and engrave his dies, the best artist then available in Magna Graecia. We may add here that the first association of this true artist with the Tarentine mint can be traced back on some nomoi belonging to the middle of Evans, Period III [c. 380-345 B.C.], signed at first in the abbreviated form **K**

⁵⁰ Evans VIII. K. 1—IX. C. 1—X. D. 1.

[cf. Evans III, Types G. 1, 3, 4-F. 4, &c.], and all notable by their beautiful and highly finished style. His *floruit* may safely be laid between the years 375 and 330 B.C., and that this engraver enjoyed a great reputation in his days is evident, from the appearance of his signature **KAA** on remarkably fine contemporary coins of Metapontion and Herakleia. Wanting, however, a more authorized opinion, I sent a cast of my beautiful Molossian silver stater, represented on Pl. IX. 12, to Sir Arthur Evans, now *facile princeps* in archaeology, after having been the foremost numismatist who ever studied the splendid coinage of Sicily and Magna Graecia. He kindly answered as follows: "Certainly I should regard it as a masterpiece of the Tarentine mint, and both the style and date make it highly probable that it is the work of the engraver **KAA**. I have already noticed the parallel to this coinage presented by a horseman type which first appears with **KAA**'s signature (Horseman, p. 86). The work seems far beyond that of Locri".

The above opinion, emanating from so high an authority, and fully corroborating my own conclusions, encourages me to trust that future investigators may not find much cause to quarrel with the results of my above over-lengthy investigations.

It is difficult to ascertain whence the engraver **KAA** drew his inspiration, or which model he followed when engraving his first die for Alexander. His prototype no doubt recalls the very fine Arcadian League silver stater,⁵¹ struck c. 363-343 B.C., with the genial and leonine type of Zeus, a new ideal which sculpture

⁵¹ G. F. Hill, *Historical Greek Coins*, Pl. V. 37.

was already attaining under the first influence of Lysippus and his school which imitated nature so closely. The treatment of the hair on the Molossian's coins and the delicacy of work in the smallest details are typical particularities showing the tendency of this influence.

As is well known, the wish to connect everything beautiful or remarkable with some famous name, produced the popular suggestion that the splendid bronze fragments of cuirass from *Southern Italy* in the British Museum, known as the Bronzes of Siris [a most fanciful provenance], may have belonged to the armour of Pyrrhus. If the Molossian's name had been suggested, that would have been, in the writer's opinion, much nearer the mark as to time.

The minute details of the beard, and the so individual line of the nose on the Molossian's silver didrachm in my cabinet [Pl. IX. 12], so strongly recall the features of the Greek helmeted warrior overpowering an Amazon on one of these bronzes, that I have always cherished the idea that they may well have ornamented the Molossian's cuirass rather than belonged to the armour worn by Pyrrhus. The delicate finish of the minutest folds of the drapery, and the microscopic faithfulness of the details of the warrior's beard, are to my eyes typical of the Tarentine school under the influence of Lysippus, more so as Taras is known to have given so many remarkable examples of repoussé work, such as the famous "Bari" silver cup,²² the reverse of which is decorated with a minuteness

²² Cf. M. Mayer, Bari, MDCCCX. *La Coppa Tarantina di argento dorato*, Pl. I, II, III.

closely akin to the elaborate incised patterns on the interior of the shields held by the Greek warrior and Amazon purporting to come from Siris.

As considerable sums of money must have been required to support the large numbers of troops Alexander employed, it is not astonishing to find the many dies recorded above for each type. In order to ensure a larger output a great number of dies must have been used simultaneously, and the explanation for the slight variations noticed among the recorded dies apparently proves that some of them may have been ordered for simultaneous use as the best way of increasing the rapid minting of coins. Historical considerations preclude us from supposing that the later and subsequent Alexander issues were struck at Tarentum, and, as Sir A. Evans has noticed, some at least must have been struck at Metapontion after the Molossian had recovered the Tarentine colony of Herakleia from the hands of the barbarians, only to retain it under his own domination, while at the same time he had transferred the seat of the League to a walled enclosure near the river Akalandros,⁵³ and thus was on the very verge of breaking his friendship with the Tarentines, who now found in him a too powerful and ambitious leader. It is even probable that Alexander when making of Metapontion the bulwark of his power in Magna Graecia may have taken with him as many of his dies as were still in good condition, and transferred them from Tarentum to the mint of Metapontion, only a few miles away.

The author is inclined to believe that under such

⁵³ Strabo vi. 3, and Evans, *op. cit.*, p. 81.

circumstances dies were more apt to travel than engravers, as suggested by E. Babelon, the mints already established in every city belonging to the League being only too pleased to undertake the striking of their leader's coins from dies supplied by the would-be Alexander of the West. This is probably the best explanation of the great and puzzling diversity of fabric between many examples of the Molossian's silver staters, struck from the *very same pair of dies*.

GROUP D.

That the few silver staters recorded under this small group are strictly contemporary with the last issues described above is fully proved by the discovery of the new unique die-coupling, Type No. 10 [Pl. X. 8], from the same recent Southern Italian⁵⁴ find, which included also the brilliant silver stater reproduced on Pl. IX. 12. Both coins were in the same admirable condition, and must have been struck almost simultaneously.

The style of the obverse die [Pl. X. 7 and 8], now under consideration, shows a new conception of the Dodonaean Zeus. The high relief of this type, the god's strongly marked leonine expression and his deeply-set brow, conjointly with the character of his profile, reveal a very close connexion between this new type and the lifelike head of Herakles on the superb gold Tarentine stater reproduced on Pl. XI. 15, possibly suggesting identity of handiwork. I fail myself to see any great similarity between this effigy and the Olympian stater depicted by C. T. Seltman, on Pl. VII CS

⁵⁴ For future reference sake this find shall be called the "Molossian" find; cf. p. 211.

of his monograph already referred to; he considers the latter as the model of the new Molossian's type, though it is evident that both proceed from the same school of art. This effigy is, however, more closely connected with a fine Metapontine silver stater which must undoubtedly, as shown by Sir Arthur Evans, be brought into relation with the landing of the Epirote prince, and which displays the laurel-crowned head of Zeus accompanied, as upon the Syracusan contemporary coins, by the inscription ΕΛΕΥΘΕΡΙΟΣ.⁵⁵

The Molossian's new die is signed Π beneath the truncation of the god's neck. Without laying much stress on the point, considering the conspicuous rendering of this Π, it is possible that this initial may represent the Tarentine engraver⁵⁶ working in ΚΑΛ's atelier, as we have noted on the Tarentine nomoi depicted here, Pl. XI. 19 and 20, the same initial Π, conjointly with Ι and Μ, beneath the microscopical signature of ΦΙ, the well-known collaborator of ΚΑΛ, who had signed *en artiste* the two above coins.

Before the discovery of the new die-coupling No. 10 [Pl. X. 8], the style of the thunderbolt on this rather well-known reverse die No. 9 [Pl. X. 7], which appeared to my eyes as distinctly Epirote, had at first prompted me to place this issue among those struck in Epirus. The provenance of Type No. 10, its new reverse, coupled with the same obverse die No. 9, after the latter had been in use for some time, has induced

⁵⁵ B. M. C., *Italy*, p. 249, 88, and Garrucci, T. cii. 34.

⁵⁶ This signature Π is found on the following Tarentine types, but possibly belongs to an earlier artist. Cf. Evans, *Per.* III, L 1, N 1, O 2, and *Per.* IV, C 2, C 5. Π is also to be noted on coins of other mints in Magna Graecia, such as Velia.

me to attribute these coins also to the Tarentine mint, the small eagle symbol, now of hurried and rather poor design, being strikingly similar to the same symbol found on some of the latest Tarentine Molossian nomoi, such as the coin represented by Sir Arthur Evans on his Pl. VI. 3, whilst the charming little eagle on Alexander's previous silver staters [Pl. IX. 12 to 15] is paralleled very closely in the similar symbol seen on the master-die of this same Tarentine issue [Evans, Pl. VI 1, and M. P. Vlasto, *Num. Chron.*, 1907, Pl. X. 15].

In order to ascertain the probable date of Groups C and D we shall now give the analysis of the Molossian find.

THE MOLOSSIAN FIND (1925).

This hoard was brought to my notice at the end of last year, when, from Southern Italy, it reached the Parisian coin-market. Fortunately I was allowed to study and take some impressions of this highly important though small lot *in its integrity* before even the cleaning of the coins. This hoard, or possibly only part of hoard, consisted of seventeen silver coins all more or less coated with a similar dull brown oxide, and obviously came from one and the same deposit. The oxidization was afterwards removed by judicious cleaning, and showed that amongst coins from poor to extremely fine condition there were four of quite exceptional preservation, the two brilliant silver staters of Alexander, the son of Neoptolemos, recorded above, and the Metapontine and Velian staters catalogued here under Nos. 10 and 14, which were all evidently fresh from the mint at the time of the deposit.

Taras, c. 520 B.C.

1. *Obv.*—**ΖΑΡΑΤ** (ξ in f. to l.) Phalanthos bearded (?), seated on dolphin to l., l. arm extended, beneath cockle shell (of very early style).

Rev.—Wheel of four spokes, in one quarter a dolphin to l. From the same die as the Caron, Paris 1926 sale, Pl. I. 50, and the Naville V Lucerne sale 1923, Pl. VII. 232. *Poor condition.* At 0.18 mm. Wt. 7.89 grm. (Now in my collection.)

c. 450-430 B.C.

2. *Obv.*—Naked horseman, his r. hand resting on the horse's back holding whip, his body facing, on galloping horse to l.

Rev.—No inscription visible. Phalanthos astride on dolphin to r., extending his left hand with open palm. In f. beneath very large cockle shell. No border visible.

Cf. A. J. Evans, I. A. 2; cf. S. W. Grose, McClean cat., Pl. 22. 9. *Very much worn.* At 24 mm. Wt. 7.68 grm. (Now in my collection.)

c. 380-345 B.C.

3. *Obv.*—Naked boy, his arm hanging at his side, on horse standing r. lifting its off foreleg, ☉ under foreleg; kantharos under horse's body.

Rev.—**ΤΑΡΑΣ** (→ in f. beneath). Phalanthos or Taras (?) astride &c. to l., holding in extended r. kantharos. Evans III. O. 3 (B.M.C. 108).

Very well preserved. At 20 mm. Wt. 7.68 grm.

*Herakleia, c. 430 B.C.*⁵⁷

4. *Obv.*—Female head r. wearing olive wreath on aegis with border of serpents intertwined.

⁵⁷ For this dating cf. M. P. Vlasto, *TAPAS OIKISTHES*, p. 190, and Note No. 154.

Rev.—Traces of inscription. Herakles naked, seated l. on rock covered with lion's skin, holding in out-stretched r. one-handed vase; club resting against rock.

Same die as B.M.C., p. 226, No. 15, and Jameson cat., Pl. XI. 232; worn but tolerably well preserved. R 25 mm. Wt. ?. (Now in the A. H. Lloyd col.)

c. after 380 B.C.

5. *Obv.*—Head of Athena r. wearing crested helmet, on side of which sea-horse with curled wings.

Rev.—**ΗΡΑΚΛΕΙΩΝ** (traces only). Herakles, naked, standing towards r., and strangling lion with both arms; in f. to l. club, above which [Σ].

*S. W. Grose, *Prim. Heracl.*, p. 171, I (c). B.M.C. 13; dies as Strozzi sale, No. 958.

Some what worn and struck from fractured dies.

c. 345-334 B.C.

6. *Obv.*—Head of Athena r. wearing ear-ring, necklace, and crested helmet, on side of which Skylla hurling

Δ
stone. In front **K**, border of dots.
Φ

Rev.—Inscription off flan. Same type as No. 5. In f. to l. and above signed in small letters **KΑΛ** and beneath club between legs of Herakles owl r.

Cf. B.M.C., p. 228, 28-29. R. Jameson, Pl. XI. 232. Cf. S. W. Grose, *Primitiae Heraclienses*, p. 171, 1 (e), and p. 173, 4 (d), (e), (f), (g).²⁸ From

²⁸ The above nomoi, quoted under different headings, by S. W. Grose, if not struck actually from the same dies, are all examples of the same variety as the above No. 6, and were

Δ
inscribed on their obverse **K** and **KΑΛ** on their reverse; such
Φ

minute initials are regularly badly read by compilers of sale-catalogues. The purported forgeries mentioned, p. 175, in the same paper, reading **ΑΘΗ** and **ΧΑΛΚ**, **ΑΧΦ** and **ΧΔΛΚ**, were

the same pair of dies as the f. d. c. example in the Taranto Museo from the Carosino 1904 find. *Extremely fine condition*, but the obverse die is fractured between the initials K and Φ , and the reverse die is cracked near the end of club and l. knee of Herakles. \bar{R} 22.5 mm. Wt. 7.75 grm.

Metapontion.

c. 480 B.C.

7. *Obv.*—Traces of **META**. Ear of barley, in f. to r. lizard r. upwards.

Rev.—Same as obverse incuse.

Cf. B.M.C., p. 240, No. 28.

Very much worn. \bar{R} 23 mm. Wt. ?.

c. 350 B.C.⁵⁹

8. *Obv.*—Female head r., hair rolled, wearing sphenone, ear-ring and necklace.

Rev.—**META** Γ . inwards to l. Ear of barley with leaf to r. In f. above to r. pecten.

From the same dies as R. Jameson, Pl. XIII. 282.

Very good condition. \bar{R} 22 mm. Wt. ?.

9. *Obv.*—Female head, hair rolled, to r., back of hair confined in net, and wearing ear-ring.

Rev.—From same die as No. 8.

Obverse from same die as Jameson, Pl. XIV. 288.

Reverse from same die as R. Jameson, Pl. XIII. 282.

Very good condition. \bar{R} 21 mm. Wt. ?.

repeated by Carelli from the fanciful and absurd engravings of Goltzius. Cf. *Sicilia et Magna Graecia sive historiae urbium et populorum Graeciae*, Bruges, 1576, Pl. X, \bar{A} 1 γ and \bar{A} II γ , the first of which is evidently intended for R. Jameson, No. 241, and the second for B.M. Cat., No. 28. The diobol (cc), *loc. cit.*, p. 175 [B. M. C., p. 227, No. 24], is a plated coin belonging to Arpi (cf. *Berlin Beschr.*, III, p. 181, No. 9).

⁵⁹ I owe the above dating to the kindness of Mr. S. P. Noe, the best authority on the coinage of Metapontion, of which he is preparing the monograph.

c. 334-332 B.C.

10. *Obv.*—Head of Demeter r. bound with wreath of barley with ears, wearing ear-ring and necklace, on back of head transparent veil, on either side of neck **A—Γ**, border of dots.

Rev.—**META** inwards to r. Ear of barley with leaf to l., above which, tripod, and smaller leaf to r., above which is inscribed **ΠΡΟ**.

B.M.C., p. 254, No. 121. Same dies as R. Jameson, Pl. XV. 312. *Fleur de coin*. *R* 22 mm. Wt. 7.87 grm. (now in the A. H. Lloyd collection).

Thurium.

c. 440-420 B.C.

11. *Obv.*—Head of Athena r. in crested Athenian helmet wreathed with olive, the first leaf *above* to l. is heart-shaped like a convolvulus leaf [very fine style].

Rev.—**ΘΟΥΡΙ[ΩΝ]**. In very large letters above. Bull walking r., head lowered and in profile, r. legs advanced, tail hanging down behind. Plain ex. line. In ex. fish. Cf. Jörgensen, *Corolla Numismatica*, "On the earliest coins of Thurii"; Pl. VIII. 7 and 8 (but with the convolvulus leaf beneath).

Not well preserved. *R* 20 mm. Wt. ?. Now in the Cl. Godefroid col.

400-350 B.C.

12. *Obv.*—Head of Athena wearing crested Athenian helmet, the hair loose and blown back over rim of helmet, which is adorned with figure of Skylla holding trident.

Rev.—**ΘΟΥΡΙΩΝ** above bull butting r., the head turned to front, tail raised lashing back. Single ex. line of dots. In f. to l. between hind legs **A**, in ex. two fish to r. An unpublished variety. *In very good condition.* *A* 24 mm. Wt. 15 grm. (Now in the collection of Cte. Chandon de Briailles.)

Velia.

c. 450-400 B. C.

13. *Obv.*—**ΥΕΛΗ** inwards to r. Female head r., hair bound with narrow stephane, and turned up behind.

Rev.—Lion crouching r. on dotted exergue. In ex. **ΔΗ**. B.M.C., p. 306, 20, 21. Jameson, Pl. XVIII. 381. *Tolerably well preserved.* *R* 21.5 mm. *Wt.* ?

c. 334-332 B. C.

14. *Obv.*—Head of Athena r. in crested Athenian helmet adorned with griffin, floral design on flap, hair tied behind, but ends loose.

Rev.—**ΥΕΛΗΤΩΝ** in ex. Lion prowling r. In ex. **Π**. From same dies as S. W. Grose, McClean col., Pl. 45. 7.

Fleur de coin. *R* 22 mm. *Wt.* 7.35 grm. (the coin may have lost weight through interior crystallization). Now in the H. de Nanteuil collection.

Caulonia.

c. 480-388 B. C.

15. *Obv.*—Naked male figure with short hair advancing r., holding branch in raised hand, and fillet hanging over extended l., in field to l. $\frac{1}{4}$ (fibula?), border of dots.

Rev.—Traces of **ΚΑΥΛΩΝ ΙΑΤΑΞ**. Stag r. Cf. B.M.C., p. 388, No. 27. Rather poor condition. *R* 23 mm. *Wt.* ?

Summary of coins in the Molossian hoard.

Alexander, son of Neoptolemos	2
Taras	3
Herakleia	3
Metapontion	4
Thurium	2
Velia	2
Caulonia	1

Total of coins in hoard 17

The composition of this small hoard points to a provenance somewhere between the ancient sites of Taras, Metapontion, and Herakleia, but from indirect and trustworthy information I have been able to ascertain that this highly interesting find actually came from the neighbourhood of Taranto, not far from Metaponto, and that probably it included some other coins which cannot be traced so far. The presence in this hoard of some early coins, as Nos. 1, 4, 11, 13, including one incuse stater of Metapontion, No. 7, mixed up with coins belonging to much later issues, as the brilliantly preserved coins mentioned above, is of no rare occurrence in finds from Southern Italy, and Sydney P. Noe, in his *Bibliography of Greek Coin Hoards*, describes the Taranto June 1919 find referred to above [p. 207], the Torre dell' oro 1912 hoard [p. 217], and other finds from Calabria, all presenting the same character, showing how long obsolete types remained in circulation or were stored for an unknown purpose. The preservation of the various coins from the Molossian hoard, however, is strictly in accordance with the dates otherwise ascertained by the leading authorities as those of the classes to which the coins belong. The burial date of this find, which includes almost exclusively coins of cities closely allied during the years immediately following the middle of the fourth century by the necessity to make head against the pressure of Lucanians, Messapians, and other barbarians, must be assigned to a relatively short time after the landing of Alexander the Molossian in Italy [334 B.C.]; this is conclusively proved by the presence of his two brilliantly preserved staters, and the years c. 333-332 may be recorded as the approxi-

mate date of the deposit. We have further a new valuable indication of the date of the Metapontine (No. 10) and Velian (No. 14) staters, also fresh from the mint, at the time of their concealment.

The presence in this *tesoretto* of the extremely fine nomos of Herakleia, No. 6, signed **KAA**, is very important, and gives, as we shall see, quite a conclusive clue for the correct dating of the deposit of the famous (1904) hoard from Carosino, a small hamlet adjoining Taranto. Owing to its very fresh condition it is evident that this beautiful coin cannot have been struck any length of time before the above brilliantly preserved coins of Metapontion, Velia, and Alexander of Epirus.

The Carosino hoard, of which S. P. Noe gives a short notice,⁶⁰ was very soon after its discovery, as usually is the case when the find is important, divided between the finders into several lots, some of them soon reaching the Italian and Sicilian coin-markets, others being purchased by the Munich, Vienna, or Paris coin-dealers. Fortunately, however, Cav. Quintino Quagliati, the ever-vigilant keeper of the Taranto Museo, was able to secure forty-six coins from this find. Owing to his courteousness, when in Taranto during February, 1906, I was allowed to study this lot, which included—amongst a small proportion of coins of Taras of early issues in poor condition, mixed with a few fine or very fine nomoi of Evans, Period III—about a dozen examples, evidently fresh from the mint, of the charming horsemen⁶¹ displaying on their reverse the

⁶⁰ *Op. cit.*, p. 55, and A. J. Evans, *Num. Chron.*, 1912, p. 51, note 61, where the Carosino burial-date is given as *c.* 375 B. C.

⁶¹ This type (Evans, IV. H), before the Carosino find, was

eponymic hero of Tarentum, on his dolphin to r. between two stars, pensively contemplating a heroic helmet that he holds between his hands (Evans, Pl. IV. 9, 10, 11), and signed **API**, **KAA** or **ΦI**, which were issued, as shown by Sir Arthur Evans in the years immediately preceding 334 B.C. The Taranto Museo's lot included also, besides a few more or less fine coins of Croton, Velia, and Metapontion, a truly brilliant example of the nomos of Herakleia, also evidently fresh from the mint at the time of the deposit, and *from the very same dies* as No. 6 from the "Molossian" hoard. As I was allowed to take an impression of the Carosino nomos of Herakleia, I can now compare, side by side, the plaster casts of both coins. Besides being in unrivalled condition, the Carosino example is no doubt a somewhat earlier striking, its obverse showing but little traces of the subsequent flaws recorded above, and plainly visible on the coin from the "Molossian" find. On the Carosino reverse die the crack, visible on both coins above the left knee of Herakles, presents also a slightly earlier stage of this fracture.⁶² Taking all the above evidence under consideration, it is certain that no very important length of time may have elapsed

excessively rare and almost only represented by two examples in the Berlin Museum [*Beschr.* III, 131, 132], besides the three well-known, very fine coins in the British Museum [B. M. C., 211, 212, 213] and those of the Naples Museum and the Strozzi collection. All the specimens, conspicuously in splendid preservation, that have figured in various sales since 1905 can be traced back to the Carosino find.

⁶² The very fine example in the British Museum, reproduced Pl. 34. 16 by Head, *Coins of the Ancients*, and well known from the cut in *Historia Numorum*, is struck from a different pair of dies with the type of the reverse in much lower relief than the "Carosino" and "Molossian" specimens.

between the striking of the two coins. Reverting to the results of my careful study of the portion of the Carosino find in the museum at Taranto, I had then noted c. 335-334 B. C. as the probable date of the deposit of this hoard. This was in accordance with the data I had obtained by the close examination of other lots from the Carosino find which had passed through my hands, or which I had been fortunate enough to secure for my own collection. When in Italy shortly after the find (1904), I had been offered two lots from this splendid find, the most important of which had reached the hands of a then well-known dealer, and included, amongst truly brilliant Tarentine nomoi⁶³ and diobols belonging to the fourth Period of Evans, one or two silver didrachms of Metapontion⁶⁴ and Thurium,⁶⁵ a surprisingly beautiful coin of Terina absolutely fresh from the mint.

I only purchased the Tarentine coins of this lot, but took an impression of the Terina gem. This coin was subsequently included in the Hirsch sale of 1905 [lot No. 259], and when hearing that it had been purchased by Sir Arthur Evans, I *unfortunately* duly informed him of its purported provenance.

The discovery of the signature of Evaenetos on this now famous coin is well known,⁶⁶ and as Sir Arthur Evans could not possibly date it later than 375 B. C., he was compelled to propose altering the date and throwing considerably back to *circa* 375 B. C., if not

⁶³ Cf. *Num. Chron.*, 1907, Pl. X. 6, 8, 9, 10, 11, 12, 13, and p. 286, 9 to 15, are all from the Carosino find.

⁶⁴ One as R. Jameson, Pl. XIV. 289 (very good condition).

⁶⁵ A rather fine stater as H. Weber, *Cat.*, Pl. 35, 881.

⁶⁶ Published by Sir Arthur Evans in *Num. Chron.*, 1912, Pl. IV. 19, Pl. V. 2, *seven years* after the Munich sale.

earlier, his fourth Tarentine Period (previously dated 344-334 B. C.), so brilliantly represented in the Carosino find by many examples of his Type IV. H, evidently fresh from the mint as the Terina stater at the time of the deposit.

This new dating created a break of about forty years in the previously established sequence of the Tarentine issues, and, as far as I am concerned, being quite unable to discover any coins that could be fitted in this long gap, I was very much inclined to consider the Terina-Evaenetos coin as *testis unus testis nullus*, it being notorious that all finds are liable to adulteration. It was only years later that the above-mentioned coin-dealer, being questioned again, admitted then that the famous Terina coin had been included by him in his lot from the Carosino hoard in order to enhance the value of the latter. The conclusion is that Sir Arthur Evans's remarkably accurate chronological arrangement, as first established by him for his fourth Tarentine Period, must again hold good, as well as the first date assigned by him to the splendid gold Tarentine stater [Pl. XI. 14], which is so closely related to the silver nomoi of this same period. My suggestion, also taken into consideration by Sir Arthur Evans, that the initial **E** on the obverse of this gold stater, coupled with the reverse signed by the artist **KAA**, might represent the signature of Evaenetos, cannot of course be maintained any longer, though there is no doubt that the style of the engraver of this beautiful obverse die, whoever he may be,⁶⁷ shows

⁶⁷ The initial **E** is, it is true, found on some Tarentine nomoi of Evans III. D. 1 and IV. C. 1, but owing to the somewhat conspicuous

the evident influence of the masterpieces signed by the great Syracusan artist. The date of the deposit of the Carosino hoard may now be considered as well ascertained, and assigned to c. 336-334 B.C., two or three years earlier than the "Molossian" little find, and I hope that some day the learned keeper of the Taranto Museo, following the example of Cav. P. Orsi, may give us a detailed account and analysis of the forty-six Carosino coins now under his care.

GROUP E.

c. 334-332 B.C.

The very fine silver stater described under Type No. 11, and placed at the head of this group [Pl. X. 9], presents many particularities that render its attribution to any special mint very tentative.

The effigy of the Dodonaean Zeus depicted on this piece, though also resembling the Tarentine gold prototypes, is, as noted by P. Gardner,⁶⁵ somewhat connected by style with the Zeus on some of the coins of Philip of Macedon, which recall at times⁶⁶ the *manière* of Pheidias as seen on the bearded figures on the frieze of the Parthenon and Athenian sepulchral reliefs. Though a typical Greek type, it illustrates the tendency to weakness which now begins to set in, but this may lead us to infer that this new die is only

rendering of the E. I am more inclined to attribute this obverse die also to KAA, whose signature appears on the reverse of some well-known Metapontine silver staters of a very similar type as Garrucci, Tav. ciii. 5. Cf. Evans, *loc. cit.*, p. 68. Cf. M. P. Vlasto, *J. L.A.N.*, 1901, Pl. S' 14, and p. 105, 1, 2, 3, 4.

⁶⁵ P. Gardner, *loc. cit.*, p. 150.

⁶⁶ Cf. Head, *Coins of the Ancients*, Pl. 22, No. 18.

a copy made by a very clever engraver who followed as closely as he could the Tarentine master-dies. The thunderbolt on the reverse has also lost the elegant and skilful balance hitherto noted, and the general character of the inscription with the letters, even the O's, all of the same size, and the N's retrograde (**И**), is no longer typically Tarentine as on all the coins of Group C. This unique stater, now in the British Museum, was formerly in the collection of Mr. Woodhouse, who resided for a long time at Corfu. Should we take this provenance into consideration it might possibly hint that this stater may have been struck in Epirus, though after a very close comparison of this coin with the following type, No. 12 [Pl. X. 10], which very probably, as we shall see, was struck at Metapontion, and is certainly the copy of the London silver stater by an inferior engraver, I prefer to assign, pending more reliable evidence, our type No. 11 also to this Italian mint. In fact the nearest parallel to both these types is supplied by a very beautiful didrachm of Metapontion⁷⁰ presenting on the obverse a *laurel-crowned* effigy of Zeus, accompanied by the *thunderbolt* in the field, signed on the reverse by the engraver **ΚΑΑ**, and this type must certainly be connected with the establishment of the Epirote prince at Metapontion when his relations with the Tarentines were on the wane.

⁷⁰ Cf. M. P. Vlasto, *J.I.A.N.*, 1901, Pl. S' 15 and 19. A close examination of the god's wreath on the exceptionally fine example formerly in the Nervegna collection [Nervegna Sale Cat., Pl. IV. 460] shows clearly that this wreath cannot be intended for an oak-wreath as Evans, *loc. cit.*, p. 82, each leaf alternating with a clearly depicted minute laurel-berry.

Our Type No. 11 is also apparently linked with the following No. 12, not only by style, but also by the new position of the eagle-symbol now placed to the right of the thunderbolt [Pl. X. 10].

That Types 12 and 13 [Pl. X. 10, 11, 12] are the very last ones struck in Italy by Alexander cannot be disputed; their low weight, rather flat relief, and fabric sufficiently prove this. I should date them c. 332-330, and they may well have been struck at Metapontion, just before the Molossian started for his new campaign against the Bruttians, which was to be cut short by his death near the waters of the Italian Acheron, beneath the walls of Pandosia, thus fulfilling the warning of his own oracle at Dodona, which bade him to shun Pandosia and the Acheron river.⁷¹

The reverse die of the second die-coupling, reproduced on Pl. X. 11 and 12, links this type also with the remarkably fine stater, Pl. X. 8, from the "Molossian" find, which was certainly struck, as we have seen, at Taras. The effigy of the Dodonæan god is now signed quite close to the neck-truncation with a very minute monogram, which under the lens reads Ξ , or possibly Ξ , recalling the signature of the Tarentine engraver ΞΕ , noted above [cf. Pl. XI. 10, 13, 16, 17] as one of ΚΑΛ 's fellow artists, or possibly pupils.

A similar monogram or letter Ξ is also to be found on some almost contemporary Metapontine staters.⁷² I have already mentioned two very fine coins of Metapontion with the head of Zeus the Liberator, proving

⁷¹ "Διακίδη προφύλαξο μολεῖν Ἀχέρουσιαν ἕδαρ
Πανδοσίαν τε ὑπὲρ τοῦ θανάτου πεπωμένους ἐστί."

⁷² Cf. R. Jameson, *Cat.*, vol. 1, No. 292.

the close connexion of the son of Neoptolemos with this mint. A small bronze coin of Metapontion, which shows on the obverse the bust of Apollo-Helios full face radiate, and on the reverse, inscribed **ME**, three barley corns arranged starwise [cf. Carelli, *N. I. V. T.*, clix. 171], certainly confirms the monetary alliance concluded c. 332-330 between the Metapontines and the Epirote Prince. This type of Apollo-Helios facing on a radiate disk, *the rays alternately shorter and longer*, is rather rare in sculpture; however, the similarly rayed head of Apollo-Helios driving his steeds on the marble slab at Berlin,⁷³ from the temple of Helios at Ilion, where it was discovered by Schliemann, is strikingly similar to the same type on the small gold and silver coins struck at Tarentum soon after the Molossian's arrival in Italy.

Why Alexander of Epirus should have adopted this type it is difficult to answer, but I would suggest that possibly mere superstition may have prompted this choice, when remembering that Dion, the other *liberator*, about to start from Zacynthus for his successful enterprise, twenty-seven years before him, had placed himself and his companions, as his coins can attest,⁷⁴ under the special protection of Apollo.

The very small and all but unique⁷⁵ bronze coin,

⁷³ Ethn. Mus. Cf. S. Reinach, *Répertoire des Reliefs*, t. ii, p. 20. Saglio, *Dict.*, fig. 6491; *A. Z.*, 1884, Pl. 14; Baumeister, i, p. 639.

⁷⁴ Cf. G. F. Hill, *Historical Greek Coins*, Pl. VI. 45, and G. Macdonald, *Coin Types*, p. 119, Pl. IV. 15.

⁷⁵ Cf. *Beschr.* III, Pl. XIV. 231, catalogued under Taras. As, however, the first issue of the Tarentine bronze coins is supposed not to have taken place before the Pyrrhic hegemony, c. 281 B.C., I prefer to refer this very rare little coin to Alexander the Molossian.

figured as No. 9 on Pl. XI, from the example in my cabinet, with the same obverse type and a large star on the reverse, must also be regarded as an alliance piece, just like the little silver coins struck in Apulia at Rubi with a similar head of Apollo-Helios,⁷⁶ the star-type of the reverse pointing distinctly to Taras as its probable mint.

The above considerations and the ever widening breach between the Tarentines and the would-be Alexander of the West, who, after the great battle of Paestum, possibly a year earlier, had concluded an alliance with Rome, has led me, as we have seen, to assign to the mint of Metapontion his last Italian issues described under Group E. Although, as shown by Sir Arthur Evans, there is strong numismatic evidence of some sort of political understanding or alliance, unrecorded by history, between Alexander and the Epizephyrian Locrians, when comparing Alexander's beautiful silver stater, reproduced on Pl. IX. 15, with the best of the contemporary Locrian didrachms⁷⁷ on which the treatment of the hair of Zeus presents some analogy, I quite fail to see in the Locrian coins anything more than poor and elaborately ornate copies of the above stater, and I cannot possibly follow Head's suggestion that Alexander may have ever chosen engravers from the mint of Locri to design and strike his coins. This mint has only one masterpiece to boast of, certainly struck no later than 350 B.C., the beautiful stater with the laureate head of Zeus [ΙΕΥΣ], with the hair short and crisp closely following an

⁷⁶ Cf. Evans, Pl. V, No. 8.

⁷⁷ Cf. Head, *Coins of the Ancients*, Pl. 34, No. 26. S. W. Grose, *Cat. of the McClean Col. of Greek Coins*, Pl. 57. 7.

Olympian prototype,⁷⁶ also imitated at Syracuse, coupled with the charming and well-known ΕΙΡΗΝΗ ΛΟΚΡΩΝ reverse showing the influence of Terina. All the subsequent Locrian issues deteriorate rapidly in style, probably under Bruttian influence, and only very few coins (as those mentioned in Note 77) struck during Alexander's presence in Italy are notable as tolerably decent imitations of some of the finest Molossian silver staters.

The following cut (Fig. 6), comparing Alexander's type No. 7 [Pl. IX. 12] of Group C, to an unusually good Locrian didrachm (Fig. 7), sold this year at Lugano [January 1926, Pl. XXXI. 735], will show at a glance how far the copy stands apart from the original.



FIG. 6
Alexander.



FIG. 7
Locri.

GROUP F.

332-330 B. C.

That many of Alexander's Italian silver issues circulated also in Epirus can hardly be disputed, and this is corroborated by the fact that some of his finest types, struck at Tarentum, were subsequently closely imitated in bronze by some Thessalian mints such

⁷⁶ C. T. Seltman, *loc. cit.*, p. 63, Note 1, and Pl. VI. CH.

as Alus or Hypata striking coins for the Aenianes. The late Sir Herman Weber had quite rightly noted how much a remarkably beautiful bronze coin of Aenianes, in his collection,⁷⁹ recalled a silver stater of Alexander of Epirus, no doubt our Type 7 B of Pl. IX. 14.

Under Group F I have recorded Alexander's last silver staters struck, this time, as we shall see, almost certainly in Epirus. These obverse dies [Pl. X. 13 and 15] stand quite apart from all the Molossian's Italian previous issues, and I cannot do better than quote here Percy Gardner's⁸⁰ comment on this remarkable new type.

"In No. 39 [here Pl. X. 13] we have something entirely peculiar and distinctive. This head with short, sparse beard and long mane-like hair is almost unique, the nearest to it among effigies occurring on coins of Thessaly, for instance, Pl. XII. 17. Are its peculiarities due to the influence of a school of art belonging to Northern Greece? This is possible, and although it is probable that the silver coins of the Epirote kings were struck in Italy, yet this piece may be an exception, or it may be the work of an Epirote artist. But whoever is the author, he shows influence of the school of Lysippus; the leonine brow and the hair sufficiently prove this, and the coin might perhaps better have been relegated to the next period to which in historical strictness it probably belongs."

It is highly improbable that Alexander, when in Italy, should ever have chosen to design his dies an artist from the distant Thessaly and brought him over in Magna Graecia, but I fully agree with P. Gardner that these staters must have been struck in Epirus, and stretching the point I am firmly convinced that

⁷⁹ Cf. L. Forrer, *The Weber Collection*, vol. ii, p. 206, No. 2792, Pl. 108.

⁸⁰ *The Types of Greek Coins*, p. 150.

these no doubt attractive but peculiar new staters are the work of the very same artist, probably a Thessalian, who designed the master-dies for the earliest silver issues of the Aenianes. The similarity of the finest silver coins of the Aenianes to the Molossian's staters of this last issue, noted by P. Gardner, had occurred independently to me when studying the Thessalian coins included in Dr. Pozzi's sale catalogue. Here under Figs. 8 and 10 are represented Nos. 1188 and 1189, formerly in this important collection, which, when compared to Alexander's stater of type No. 14 [Fig. 9], show how close indeed is the affinity between



FIG. 8
Aenianes.



FIG. 9
Alexander.



FIG. 10
Aenianes.

these coins. It cannot, in my opinion, be here a case of imitation or copy. The very particular and individual style of these effigies is so absolutely similar even in the design of the minutest details, such as the very unusual turn of the god's moustache, that identity of handiwork is in the writer's opinion quite certain.

The die-concatenation between the three staters figured Pl. X. 13, 14, and 15 is somewhat puzzling and uncertain, and as I have not been able to compare the original coins, it is hard to decide if the unique and very striking type No. 15 [Pl. X. 15] is the prototype or not of this last issue, which cannot have been minted any length of time before Alexander's death-date.

Bronze Coinage of Alexander of Epirus.

342-330 B.C.

I shall not dwell much on Alexander's copper coinage, of which I give [Pl. XI] a fine selection of dies, and which is considered by Head as *undoubtedly* Epirote. Their types, of characteristic Molossian device, and their style, at times rather rude, are in favour of such an origin. However, I prefer to follow again here P. Gardner, and write *almost certainly* in place of *undoubtedly* Epirote, for the following reasons. Alexander's copper coins are very rarely to be found in Greece or offered for sale on the Athenian coin-market where fine patinated bronze coins from Thessaly and Epirus are readily sold. The National Collection in Athens, which possesses an almost unrivalled number of bronze coins, can show only two examples of Alexander's copper coins, whereas the Naples Cabinet has in its trays 16, of which no less than 9 come from the Santangelo Collection, which was formed in Southern Italy. During the excavations made at Dodona by Mr. C. Carapanos 648 bronze coins were found, as recorded by him in *Dodona et ses Ruines*; not a single copper coin of Alexander the Molossian has been mentioned, although most of the Epirote mints were represented by fine specimens, some of which are engraved therein, Pl. LXII.

The probable inference may be that some of the finest dies of the Molossian's bronze coins may also have been engraved in Italy, such as those reproduced Pl. XI. 4 and 5, showing on their reverse a thunderbolt of typical Tarentine design.

All Alexander's bronze coins are very scarce, and the variety, represented Pl. XI. 8, on which the Molossian eagle turns his head to left, is apparently of high rarity and recalls a bronze coin of Coreyra.⁴¹

Other copper coins, ascribed to Alexander the Molossian, such as the two coins in the Leopold Welzel de Wellenheim sale (Vienna, 1847), Nos. 3394 and 3395, the first of which is in the Vienna cabinet, presenting on the obverse a laureate head of Apollo, and on the reverse a large and small thunderbolt dividing the legend $\begin{matrix} \text{ΑΛΕΞΑΝ} \\ \text{ΔΡΟΥ} \end{matrix}$ have been shown by Imhoof-Blumer⁴² to belong to Alexander the Great of Macedon.

M. P. VLASTO.

CORRECTIONS.

Pl. X. 7. By inadvertence the cast of the reverse has been placed on the plate with the thunderbolt upright. The inscription shows that it should have been placed horizontally.

Pl. XI. 15. The surface of the plaster cast of the reverse has been partly damaged by accident, the original being perfect.

⁴¹ B. M. C., Pl. XXII, 13.

⁴² *Monnaies Grecques*, p. 120, 43 to 46.

X.

THE RESTORED COINS OF TRAJAN.

[SEE PLATES XII, XIII.]

IN an article published in *Num. Chron.*, 1920, p. 177, I drew up a list of the restored coins of Titus, Domitian, and Nerva, and made an attempt to explain their issue: the discussion of the restorations of Trajan I deferred to a later date. The time has now come to undertake this second task. Lists of these restorations, essentially complete, have already been published by Babelon and Gneecchi;¹ but it seems necessary to republish them here, (a) in order to bring together references and make the few additions required, (b) more particularly in order to submit the Republican restorations in an intelligible form—arranged in periods, approximately dated and annotated—not simply under names of

¹ See Babelon, *Description historique et chronologique des monnaies de la République romaine* (esp. ii, pp. 571 ff.)—quoted in this paper as B.: Gneecchi in *Riv. It. di Num.* 1897, pp. 123 ff.—quoted as Gn.: and in the same paper, 1901, pp. 248 ff. Other works to be consulted are: Bahrfeldt in *Revue Belge*, 1897, pp. 145 ff. (a supplement to Babelon)—quoted as Bhr.: De Witte in *Rev. Num.*, 1865, pp. 167 ff.: Grueber in *Coins of the Roman Republic in the British Museum*—quoted as B.M.C.: Laffranchi in *Riv. It. di Num.* 1911, pp. 427 ff.: Mommsen, *Römisches Münzwesen*, pp. 758 ff.: Mowat in *Congrès International de Numismatique*, Paris, 1900, pp. 210 ff. Eckhel's discussion of restorations in the fifth volume of "*Doctrina Numorum*", the substance of which is reproduced in Stevenson's *Dictionary of Roman Coins*, is of course still worthy of a careful reading.

families. Unless we realize to the best of our ability what Trajan's mint-masters were restoring, we can hardly hope to understand fully why they restored.

We will begin, then, with annotated lists of Trajan's restorations, (a) of Republican denarii, (b) of imperial aurei.² Later we will investigate the particular occasion of this restoration issue, its relation to other similar issues and its meaning.

A.

REPUBLICAN DENARII RESTORED BY TRAJAN.

The "restitution" legend, **IMP·CAES·TRAIAN·AVG·GER·DAC·P·P·REST·**, appears invariably on the reverse, reading from l. to r. round the edge, inwardly.

Period I. Third Century B.C.

1. *Obv.*—Head of Janus, laureate.

Rev.—Jupiter, brandishing thunderbolt in r. hand and holding sceptre in l., in quadriga driven r. by Victory: below, on tablet, **ROMA** (incuse).

2. *Obv.*—Head of Roma, helmeted, r.: behind **X**, in front **COCLES**.

Rev.—The Dioskuri on horseback charging r.: below, female head and **ROMA**.

3. *Obv.*—Head of Roma, helmeted, r.; in front, **DECIVS**, behind **MVS** and **X**.

Rev.—The Dioskuri on horseback charging r.: below, oval shield and trumpet crossed and **ROMA**.

1. B. ii, p. 571, No. 3 (cp. i, p. 21 f., No. 23 f.); Bhr., p. 145 f., No. 1: cp. B.M.C. ii, pp. 132 ff.

Paris (?), Vienna.

² Augustus's denarii with moneyer's names come from the old senatorial mint and are considered Republican. The aurei of Caesar are considered to belong rather to the imperial coinage.

The original is of course best known as a didrachm, though the drachm also occurs: the restoration is a denarius. These coins appear to have been the latest silver in the "Romano-Campanian" series. If the earlier silver of that series is to be attributed to the Pyrrhic War, as I have suggested in a recent paper,^{2a} these coins should date from about 268 B.C., and should run with the earliest denarii as double victoriatas and victoriatas ($1\frac{1}{2}$, $\frac{3}{4}$ denarius). They will have been struck for circulation in South Italy, and, as the early issues of denarii appear to have been relatively few, will have formed an important part of the Roman coinage during the First Punic War. They were still the currency of South Italy in the Second Punic War, for Hannibal after Cannae fixes the ransom of his Roman prisoners in *quadrigati* (Livy xxii. 58).³

2. B. ii, p. 577, No. 23 (cp. i, p. 48); Bhr., p. 153 f., No. 13: cp. B.M.C. ii, p. 216 f. B., *loc. cit.*, No. 24, quotes a variant without female head; Bahrfeldt is probably right in classing all examples of this variety as forgeries.

British Museum, Gotha, Naples, Vienna. There is a forgery by Becker.

Here, as on No. 3, this obverse legend is an addition.

The original was struck early in the Second Punic War, probably at a local Italian mint. If the restoration of Trajan really exists as a genuine coin, we must

^{2a} *Num. Chron.*, 1924, pp. 181 ff.

³ Polybius, 6. 58. 5, gives three minae in place of 300 *quadrigati*, i.e. he identifies the *quadrigatus* with the drachma (denarius). Livy for once seems to have preserved a correct detail, which Polybius misunderstood.

suppose that his mint-masters had no real knowledge of the Roman mint of the third century B.C., and could actually connect a typical coin of the series with the legendary history of the early Republic. Still, in view of the evidence of Varro (quoted by Grueber, B.M.C. i, p. xxxvii), "Nummum argenteum flatum primum a Servio Tullio dicunt", we must admit this to be quite possible.

3. B. ii, p. 576 f. (cp. i, p. 47); Bhr., p. 151 f., No. 11 :
cp. B.M.C. ii, p. 216.

Copenhagen.

The original was struck not long before 217 B.C., probably at a local Italian mint. The weight appears to be still heavy and the style too appears earlier than the Second Punic War. The issue was probably connected with the great Gallic War, which culminated in the Roman victory at Telamon, 225 B.C. The reference to P. Decius Mus, the heroic victor of Sentinum, 295 B.C., can only be correct then as far as this Gallic reference goes.

Period II. Second Century B.C.

There is a long break in the series after Period I, from about 215 B.C. to 135 B.C.

4. *Obv.*—Head of Roma, helmeted, r. : behind, ROMA.

Rev.—Victory in quadriga r., holding palm-branch : below, X and M. TVLLI, above, wreath.

5. *Obv.*—Head of Roma, helmeted, r. : behind, X, below, ROMA.

Rev.—Roma seated r. on shields, leaning with l. hand on spear : before her, she-wolf and twins, at her feet, helmet, above, to l. and r., two prows.

[Pl. XII. 1.]

6. *Obv.*—Head of Roma, helmeted, r. : below, ✱, behind, AA.

Rev.—Two soldiers fighting, one with whip and shield, the other with sword and shield: in ex., T. DEIDI.

7. *Obv.*—Bust of Heracles, laureate, in lion-skin, l. : club on shoulder.

Rev.—Two horses galloping l. with rider on the near one: below, rat and TI. Q. : in ex., incuse on tablet, D.S.S. : above, S. [Pl. XII. 2.]

8. *Obv.*—Head of Mars, wearing crested, plumed helmet, l.

Rev.—Two soldiers fighting: the one on l. protects a fallen comrade, the other one, a barbarian, wears helmet ornamented with two horns: in ex., Q. THERM. M. F.

9. *Obv.* Female bust, draped, r., hair in rolls and knotted at back: behind, ROMA, below, M. CATO.

Rev. Victory seated r. holding patera and palm-branch: in ex., VICTRIX.

4. B. ii, p. 585 f., No. 52 (cp. ii, p. 502 f.); Bhr., p. 159, No. 28: cp. B.M.C. ii, p. 266.

Berlin, former Rothelin Coll., Fr. Trau Coll.,⁴ Vienna.

The moneyer is uncertain. The coin occurs in a find buried c. 125 B.C. As it is apparently of foreign mintage, it may be tentatively assigned to Spain, c. 133 B.C., in connexion with the siege of Numantia. The mark of value X had been superseded (? c. 140 B.C.) at Rome by the new mark ✱; where the old mark is found after that date, there is good reason to suspect non-Roman mintage.

The coin may have been erroneously associated with the family of M. Tullius Cicero.

⁴ Quoted by Bahrfeldt as "Fr. Frau" in error (?).

5. B. ii, p. 571 f., No. 4 (cp. i, p. 72, No. 176); Bhr., p. 146 f., No. 2: cp. B.M.C. ii, p. 284 f.

Berlin, British Museum, Paris.

The prows of the restored coin replace the two flying birds of the original.

From finds we discover that the original was struck very soon after 125 B.C. The style and the mark of value X (not ✱) both suggest a mint outside Rome. The exact occasion has not yet been determined.

6. B. ii, p. 577, No. 21 (cp. i, p. 455, No. 2): cp. B.M.C. ii, p. 276.

Cp. Beauvais, *Hist. abrégée des empereurs romains*, i, p. 198.

The evidence of finds dates the original to the period from about 115–101 B.C.: the moneyer was probably tribune of the plebs 103 B.C., consul 98 B.C. The date must then be about 115–112 B.C. The coin is one of a small class, all struck at about the same time and all showing the same non-Roman fabric, perhaps Gallic (Massalia?) (see B.M.C. iii, Pl. XCIII).

The reverse type is usually interpreted as a figure of T. Didius, praetor of Sicily in 138 B.C., and father (?) of our moneyer, chastising the revolting slaves; but this explanation appears doubtful.

7. B. ii, p. 583, No. 43 (cp. ii, p. 394, No. 6); Bhr., p. 157, No. 23: cp. B.M.C. ii, p. 288 f.

British Museum.

Finds indicate a date not far from 110 B.C. The coin is one of a small class, all of about the same date, and all showing the same non-Roman fabric (see Grueber, iii, Pl. XCIV, XCV). The moneyer is not certainly known. It is highly probable that these

coins were struck in Africa (or South Italy?) for the Jugurthine War. The **D. S. S.** on reverse, "De Senatus Sententia", would suit such a special issue, and the Hercules of the obverse is a familiar African type.

8. B. ii, p. 581 f., No. 38 (cp. ii, p. 235, No. 19); Bhr., p. 157, No. 21: cp. B.M.C. ii, p. 302.

Vatican.

Finds indicate a date a little before 101 B.C.: the moneyer is not certainly known. The reverse type is usually explained as a reference to the valour of an earlier Q. Minucius Thermus in battle against the Ligurians, 192 B.C. The coin, however, undoubtedly belongs to the years of the great Cimbrian invasion and was probably struck in N. Italy or Gaul for the troops engaged against them: whether the reverse, then, had a definite past reference or not it could hardly fail to be applied to the present. The obverse is copied by the rebels in the Social War. As it was during their comradeship in arms with the Romans against the barbarians that the allies' hopes of citizenship rose highest, it is not surprising that they should show a predilection for types of that war.

9. B. ii, p. 583, No. 42 (cp. ii, p. 371, No. 5): cp. B.M.C. ii, pp. 303 ff.

Paris.

Finds indicate a date near 100 B.C.: the moneyer is not quite certain. The type certainly celebrates the end of the Cimbrian menace after the battle of Vercellae in 101 B.C. The woman of the obverse has been identified as Liberty, but may well be a peaceful Roma. The types were copied by the rebel allies in the Social War. M. Cato Uticensis, at a later date (46 B.C.), struck coins with similar types in Africa.

*Period III. The Social Wars and Wars of Sulla
and Marius, c. 91-71 B.C.*

10. *Obv.*—Male head (Mutinus Titinus) r., with winged diadem and pointed beard.
Rev.—Pegasus springing r. from tablet inscribed **Q. TITI.** [Pl. XII. 5.]
11. (a) *Obv.*—Head of Jupiter, laureate, r.: behind, sceptre and **DOSSEN.**
Rev.—Triumphal quadriga r., on which stands Victory holding wreath; thunderbolt or eagle on side: in ex., **L. RVBRI.**² [Pl. XII. 3.]
- (b) *Obv.*—Head of Juno, diademed, veiled, r.: behind, sceptre and **DOS.**
Rev.—As on 11 (a). [Pl. XII. 4.]
- (c) *Obv.*—Bust of Minerva, helmeted, wearing aegis r.: behind, **DOS.**
Rev.—As on 11 (a), but, above quadriga, Victory in fast biga, and bird on side of chariot.
12. *Obv.*—Bust of Mercury, wearing cloak and petasus, r.: behind, caduceus and letter **E.**
Rev.—Ulysses walking r., welcomed by dog Argus: **C. MAMIL. LIMEAN.** l. and r. in field. [Pl. XII. 7.]
13. *Obv.*—Bust of Venus, diademed, r.: below, **C. NORBANVS:** behind, **CCIII.**
Rev.—Fascies between ear of corn on l. and caduceus on r.
14. *Obv.*—Bust of Victory, winged, draped, r.: in front, caduceus.
Rev.—Eagle between standards: **C. V. FLA. IMPERAT.** l. and r. in field: standards inscribed **H** and **P:** between them **EX S.C.** [Pl. XII. 6.]

² The thunderbolt occurs on the chariot here and in type *b* on specimens in British Museum, an eagle on Berlin specimens of both types.

15. *Obv.*—Bust of Pietas, diademed, r. : in front, stork.
Rev.—Elephant, with bell hanging from neck, walking
 l. : in ex., Q. C. M. P. I.
16. *Obv.*—Bust of Ceres, draped, in corn-wreath, r. : behind,
CAPIT. LXXV. : in front, flower.
Rev.—Husbandman ploughing, l. : in ex., C. MARI-
 C. F. S. C.
17. (a) *Obv.*—Head of Sol, radiate, r.
Rev.—Crescent moon and seven stars : below
 crescent L. LVCRETI, above TRIO.
 [Pl. XII. 9.]
- (b) *Obv.*—Head of Neptune, laureate, r. : behind, trident
 and number.
Rev.—Genius on dolphin, r. : below, L. LVCRETI.
 TRIO.
18. *Obv.*—Head of Apollo, diademed, r., hair in ringlets :
 under chin, ✱⁶ : behind head, ROMA.
Rev.—Macedonian shield with elephant's head as centre :
 around, M. METELLVS. Q.F. : the whole in
 laurel-wreath. [Pl. XII. 8.]
10. B. ii, p. 585, No. 51 (cp. ii, p. 490, No. 1) : cp.
 B.M.C. i, p. 286 f.
 Berlin, British Museum, von Kaufmann Coll., Paris,
 Hess Sale, Nov. 1912, Vierordt Sale, No. 454.
- From finds we can date the coin to about 90 B.C., the
 time of the great Social War. The exact meaning of
 the types (Mutinus Titinus-Priapus) and the Pegasus
 of his favourite abode, Lampsacus, is not certain.
11. (a) B. ii, p. 583, No. 44 (cp. ii, p. 406, No. 1) ; Bhr.
 p. 158, No. 24 : cp. B.M.C. i, p. 311.
 Berlin, British Museum, Bunbury Coll. 1895, Paris.

⁶ Without bar, X, according to Bhr., pp. 148, 149, no. 5.

(b) B. ii, p. 583 f., No. 45 (cp. ii, p. 407, No. 2): cp. B.M.C. i, p. 311.

Berlin (two), British Museum, Paris, Hess Sale, Nov. 1912, Vierordt Sale, No. 453.

(c) B. ii, p. 584, No. 46 (cp. ii, p. 407, No. 3): cp. B.M.C. i, p. 312.

Copenhagen, Paris, Vienna.

These coins are a little later than No. 10, and appear to celebrate the decisive victory of Rome in the Social War. Honours are paid to the chief Roman divinities.

12. B. ii, p. 580, No. 34 (cp. ii, p. 173, No. 6); Bhr., p. 156, No. 19: cp. B.M.C. i, pp. 343 ff.

Berlin, former Borghesi Coll., British Museum, De Quelen Coll., von Kaufmann Coll., Paris, Hess Sale, Nov. 1912.

Finds indicate a date round about 84 B.C. for the original of this coin, which, unlike the restoration, was serrated. As the moneyer was a colleague of L. Censorinus and P. Crepusius, who struck non-serrate denarii, it is probable that the third series of serrati starts with him. If this is so, he will have struck in the year 84 B.C.⁶² The moneyer's family claimed descent from Ulysses—hence the reverse type: but a reference to the return of exiles, who had been driven out by Sulla, is very probable.

13. B. ii, p. 582, No. 39 (cp. ii, p. 259, No. 2): cp. B.M.C. i, pp. 347 ff.

Former Rothelin Coll.

A date of c. 84 B.C. may be deduced from finds: as the coin is not serrate, it is probably earlier than that

⁶² Cf. *Num. Chron.*, 1924, pp. 38 ff., 47 ff.

of C. Mamilius Limetanus (No. 12). The reverse type is a manifesto of the Marian party, which stands for Agriculture (ear of corn), Commerce (caduceus), and the Constitution (fasces).

14. B. ii, p. 586, No. 53 (cp. ii, p. 513, No. 2): cp. B.M.C. ii, pp. 388 ff.

British Museum, Paris.

Finds indicate a date a little before 80 B.C. Grueber's attribution to the time of Flaccus's praetorship in Gaul, 83 B.C., seems probable. This is the first appearance of the famous eagle and standards type.

15. B. ii, p. 573, No. 9 (cp. i, p. 275, No. 43): cp. B.M.C. ii, p. 357.

Quoted from Morelli, *Thesaurus, Familiarum Romanarum Numismata Omnia*, ii, p. 50.

This coin, an interesting memorial of the famous "gens Caecilia", was struck in Spain by the general Q. Caecilius Metellus Pius in honour of a victory over Sertorius in B.C. 79-77. The elephant was probably adopted as the badge of the "gens" after the victory of L. Caecilius Metellus at Panormus in 251 B.C., in which he captured all the enemy's elephants.

16. B. ii, p. 581, No. 36 (cp. ii, p. 202, Nos. 7 ff.): cp. B.M.C. i, pp. 353 ff.

Paris.

The original was serrate, the restoration is not.

From finds we can date the coin to a little after 80 B.C. The serrate edge suggests that the coin was struck by a member of the Marian faction: and, if the coin is indeed later than 80 B.C., it was probably struck in Spain (?). The type suggests the foundation of cities—perhaps by Sertorius in Spain.

It is extremely probable that the coin was associated in the popular mind with the famous C. Marius, whether or no the moneyer was actually any connexion of his.

17. (a) B. ii, p. 580, No. 32 (cp. ii, p. 153, No. 2): cp. B. M. C. i, p. 396.

Berlin, British Museum, Naples, Paris, Vienna, Hess Sale, Nov. 1912, Vierordt Sale, No. 451.

(b) B. ii, p. 580, No. 33 (cp. ii, p. 153, No. 3 f.); Bhr., p. 156, No. 18: cp. B. M. C. i, pp. 396 ff.

Quoted by Borghesi as "once in Vatican".

Struck c. 76 B.C. for the war with Sertorius in Spain, but probably minted at Rome. The reference to the sea suggests the war with the pirates who were in league with Sertorius. Both types were imitated on coins of Augustus, struck by Galba's adherents in Spain, A. D. 68 (cf. B. M. C., *Empire*, i, p. cxviii).

18. B. ii, p. 573, No. 8 (cp. i, p. 269, No. 30); Bhr., p. 148, No. 5: cp. B. M. C. i, p. 176.

Former Borghesi Coll., British Museum (? the same as the Borghesi coin: it was presented by Count de Salis), Hess Sale, Nov. 1912.

M. Metellus Q.F., together with C. Serveilius and Q. Maximus, has a double series of coins. In one series (A) each moneyer uses, with his own special reverse, a head of Roma as obverse: in the other (B) a head of Apollo replaces the head of Roma. Finds indicate very clearly that the two series belong to widely distant dates—A to c. 135 B.C., B to c. 80 B.C. The evidence of style absolutely confirms this view. It is clear then that we have a case of deliberate restoration; we shall hardly be far wrong if we attribute series B to the

Sullan Restoration in 82 B.C., and series A to the time of Tiberius Gracchus.^{6b} The Senate, after its crowning victories over the democrats in the long struggle, looks back to its first blow in the fight when it drove Gracchus to his death. Whether the names of the moneyers simply form part of the restoration, or whether, by a mixture of choice and accident, descendants of the same families were actually found to strike the restorations, is perhaps best left an open question.

Period IV. From the end of the Marian and Sullan Wars to the great Civil War, c. 70-49 B.C.

19. *Obv.*—Bust of Vesta, draped, veiled, r. : behind, **S.C.**
Rev.—Sacrificial knife, simpulum and axe: **P. GALB.**
 in ex., **AE. CVR.**, l. and r. in field.
 [Pl. XII. 10.]
20. *Obv.*—Bust of Vestal Aemilia, draped, veiled, r. : behind, wreath ; before, simpulum.
Rev.—Façade of the Basilica Aemilia: **M. LEPIDVS AEMILIA REF. S.C.** below, above, and at sides.
 [Pl. XII. 11.]
21. *Obv.*—Head of Flora, in wreath of flowers, r. : behind, lituus, **FLORA PRIMVS.**
Rev.—Two soldiers standing facing one another, measuring swords: **C. SERVEIL C. F.** in ex. and on r. in field.
22. *Obv.*—Head of Libertas, diademed, r. : behind, **LIBERTAS.**
Rev.—Brutus the Elder advancing l. between two lictors, preceded by a herald: below, **BRVTVS.**
 [Pl. XII. 12.]
23. (a) *Obv.*—Bust of Diana, diademed, with crescent on brow, r. : behind, lituus ; in front, **FAVSTVS.**

^{6b} Cf. *J.R.S.*, 1922, pp. 236 ff.

- Rev.*—Bocchus, kneeling r., presenting branch to Sulla, seated l. on platform: on r., Jugurtha, with hands bound, kneeling l. High in field r., **FELIX**.
- (b) *Obv.*—Bust of Jugurtha, diademed, r., lion-skin on shoulders: above, **FEELIX**.
- Rev.*—Diana in biga galloping r., crescent above head, holding lituus: above two stars, below one star and **FAVSTVS**.
24. (a) *Obv.*—Bust of Vesta, draped, diademed, r.: behind, **Q. CASSIVS**; before, **VEST**.
- Rev.*—Temple of Vesta, in which is curule chair: on l., urn; on r., ticket inscribed **A.C.**
[Pl. XII. 13.]
- (b) *Obv.*—Head of Liberty, r.: before, **Q. CASSIVS**; behind, **LIBERT**.
- Rev.*—Temple of Vesta as on No. 24 (a).
25. *Obv.*—King Aretas kneeling r., offering branch and holding camel by the reins: above, **M·SCAVR·AED·CVR·**: l. and r., in field, **EX S·C·**: in ex., **REX ARETAS**.
- Rev.*—Jupiter in quadriga, l.: below, horses, scorpion: above, **P·HYPSAE·AED·CVR·**: in ex., **C·HYPSAE·COS·PREIVE·CAPTV**.
26. *Obv.*—Head of Bonus Eventus, diademed, r.: in front, **BON·EVENT·**: behind, **LIBO**.
- Rev.*—The puteal of Libo, ornamented with lyres and laurel-branch: above, **PVTEAL**; below, **SCRIBON**.
[Pl. XII. 14.]
27. *Obv.*—Head of Concordia, diademed, veiled, r.: in front, **CONCORDIA**: behind, **PAVLLVS LEPIDVS**.
- Rev.*—L. Aemilius Paullus standing l. by trophy, by which on l. are Perseus and two children: above, **TER**; below, **PAVLLVS**.
28. *Obv.*—Head of Ancus Marcius, diademed, r.: behind, lituus: below, **ANCVS**.
- Rev.*—Equestrian statue r. on aqueduct, between the arches of which is **AQVA MAR·**: below horse, branch: behind, **PHILIPPVS**.

29. *Obv.*—Head of Quirinus, laureate, bearded, r.: before, **C. MEMMI • C. F.**: behind, **QVIRINVS.**

Rev.—Ceres seated, r., holding corn-ear and torch: in front, dragon: round, **MEMMIVS AED • CERIAIA PREIMVS FECIT.**

19. B. ii, p. 585, No. 49 (cp. ii, p. 473, No. 6); Bhr., p. 159, No. 27: cp. B.M.C. i, p. 433.

British Museum.

Finds only give a vague date here—between about 71 and 49 B.C.: but, as the moneyer was probably the unsuccessful candidate for the consulship of 63 B.C., he could only have been curule aedile very early in the period, c. 70 B.C. The reason for his choice of types is yet to seek.

20. B. ii, p. 572 f., No. 7 (cp. i, p. 129, No. 25); Bhr., p. 148, No. 4: cp. B.M.C. i, p. 450.

Berlin, former Borghesi Coll., British Museum, Hess Sale, Nov. 1912, Vierordt Sale, No. 447.

Here again, as throughout this period, finds do not give any closer dating. It is clear, however, from the career of the moneyer, who was later the triumvir, that he must have been moneyer c. 65 B.C. His coins are part of a group which exhibits a fine Greek style. His whole coinage is devoted to the glorification of his family. The Basilica Aemilia was restored by the father of the moneyer in 78 B.C., who embellished it with shields or medallions of members of his house.

21. B. ii, p. 584, No. 48 (cp. ii, p. 452, No. 15); Bhr., p. 158 f., No. 26: cp. B.M.C. i, p. 469 f.

Copenhagen.

Babelon reads **FLORAL •**, Bahrfeldt corrects to **FLORA •**: surely the correct reading is **FLORA •** (with **A** and **L** in ligature) as on the original.

Grueber's date, 63 B.C., appears to be approximately correct, but proof is wanting. The types appear to refer to past family history, but have not been certainly explained.

22. B. ii, p. 570, No. 30 (cp. ii, p. 114, No. 31): cp. B.M.C. i, p. 479.

British Museum, Gotha, Paris.

The evidence of finds and style is conclusive in fixing the date of this issue in the first stage of Brutus's career, before his retirement in 59 B.C. The coin was certainly struck as a demonstration against the "first triumvirate" of Caesar, Pompey, and Crassus. To guard Liberty a new Brutus and Ahala were needed.

23. (a) B. ii, p. 575, No. 15 (cp. i, p. 421, No. 59): cp. B.M.C. i, p. 471.

Berlin, Bunbury Coll. (? same coin).

(b) B. ii, p. 575, No. 16 (cp. i, p. 422, No. 60); Bhr., p. 150, No. 8: cp. B.M.C. i, p. 472.

De Quelen Coll.

These issues of Faustus Cornelius Sulla, son of the dictator, may be assigned with great probability to the year 60 B.C., in which he exhibited the gladiatorial games enjoined by his father's will. The reference to Sulla's career—to the surrender of Jugurtha by Bocchus, to Sulla's cult of Diana and his assumption of the name of "Felix"—are fairly clear. The obverse of (b) certainly represents Jugurtha—strange as it may be to find a defeated foe in the place of honour on the coin.

24. (a) B. ii, p. 574, No. 12 (cp. i, p. 331, No. 9): cp. B.M.C. i, p. 482.

British Museum, Paris, Vienna.

(b) B. ii, p. 573, No. 11 (cp. i, p. 331, No. 8): cp. B.M.C. i, p. 482.

Paris.

The moneyer was probably later quaestor of Pompey in Spain, 54 B.C., moneyer, then, c. 58 B.C. The types appear to refer to the trial of the Vestals in 113 B.C., but the exact reference of *Libertas* on the obverse of (a) is doubtful. Opposition to the "first Triumvirate" is probably implied.

25. B. ii, p. 572, No. 5 (cp. i, p. 120, No. 8); Bhr., pp. 147, 148, No. 3: cp. B.M.C. i, p. 484.

Former Riccio Coll., Hess Sale, Nov. 1912, Vierordt Sale, No. 446.

Struck in 58 B.C. The obverse shows the surrender of Aretas, king of Nabathaea, to M. Aemilius Scaurus, as quaestor of Pompey, in 63 B.C. Privernum was captured in 329 B.C. by an ancestor of the moneyer Hypsaeus. Trajan himself conquered Nabathaea in A.D. 106.

26. B. ii, p. 584, No. 47 (cp. ii, p. 427, No. 8); Bhr., p. 158, No. 25: cp. B.M.C. i, 419.

Berlin, British Museum, Bunbury Coll., Copenhagen.

The moneyer was probably consul 34 B.C., moneyer not c. 71 B.C., as Grueber suggests, but c. 56 B.C. It is extremely probable that this coin and the original of No. 27 were both struck in Cisalpine Gaul at the time of the Conference of Luca. This would explain the remarkable similarity of style between them and that group of serrati, which probably belongs to Caesar's governorship of Gaul.⁶⁰ The reverse shows the famous

⁶⁰ Cf. *Nam. Chron.*, 1924, pp. 41 ff., 50 ff.

puteal or well-head set up by a certain Scribonius in the forum, the rendezvous of money-lenders.

27. B. ii, p. 572, No. 6 (cp. i, p. 122, No. 10): cp. B.M.C. i, p. 418.

Paris, Vienna.

Also struck c. 56 B.C.; see notes above on No. 26. The moneyer was consul suffectus in 34 B.C. The obverse, Concordia, refers to the renewal of the alliance of Caesar, Pompey, and Crassus, the reverse to the victory of L. Aemilius Paullus in the Third Macedonian War.

28. B. ii, p. 580 f., No. 35 (cp. ii, p. 197, No. 28): cp. B.M.C. i, p. 485 f.

Quoted by Morelli.

Possibly struck by the man who was tribune of the plebs in 49 B.C.; this would give us c. 54 B.C. as the year of his service as moneyer. Both types refer to the moneyer's family.

29. B. ii, p. 581, No. 37 (cp. ii, p. 218, No. 9); Bhr., p. 156, No. 20: cp. B.M.C. i, p. 496.

British Museum, Naples, Paris, Vienna, Hess Sale, Nov. 1912, Vierordt Sale, No. 452.

A C. Memmius was tribune of the people in 54 B.C. If he struck these coins, then, it must have been c. 58 B.C. Both types refer to the moneyer's family.

Period V. The Civil Wars and Augustus,
c. 49-12 B.C.

30. *Obv.*—Apex, securis, aspergillum, and simpulum.

Rev.—Elephant r., trampling dragon; below,
CAESAR.

31. *Obv.*—Head of Venus, diademed, r.
Rev.—Aeneas hurrying l. holding palladium and carrying Anchises on his shoulders; in field r., **CAESAR.**
32. *Obv.*—Head of Moneta, r.: behind, **MONETA.**
Rev.—Cap of Vulcan laureate, tongs, hammer, and anvil: above,⁷ **CARISIVS.** The whole in laurel-wreath. [Pl. XII. 15.]
33. *Obv.*—Head of Africa, in elephant-skin, r.: in front, corn-ear: below, plough: Q. **METELL.** on r., **SCIPIO IMP.** on l.
Rev.—Hercules standing facing, resting l. arm on club and lion-skin: on r., **EPPIVS:** on l., **LEG. F. C.**
34. (a) *Obv.*—Head of Sol, radiate, r.: behind, acisculus and **ACISCVLVS.**
Rev.—Diana in biga galloping r.: in ex., **L. VALERIVS.**
- (b) *Obv.*—As on No. 34 (a).
Rev.—Europa on bull r., her veil floating behind her: in ex., **L. VALERIVS.**
35. *Obv.*—Head of the consul, M. Claudius Marcellus, bare, r.: behind, triskelis: before, **MARCELLINVS.**
Rev.—Man, carrying trophy r., about to mount steps of tetrastyle temple (Marcellus consecrating "Spolia Opima" to Jupiter Feretrius): **MARCELLVS** on r., **COS. QVINQ.** on l. [Pl. XII. 16.]
36. *Obv.*—Head of L. Servius Sulpicius Rufus, bearded, r.: around, **L. SERVIVS RVFVS.**
Rev.—The Dioskuri standing front, holding spears and swords.
37. *Obv.*—Head of Apollo, laureate, r.: behind, lyre.
Rev.—Diana Lucifera standing front, head r., holding long torch in each hand: **P. CLODIVS** on r., **M • F •** on l. [Pl. XIII. 1.]

⁷ T is omitted.

38. *Obv.*—Head of Numonius Vaala, bare, r.: around, **C. NVMONIVS VAALA.**
Rev.—Soldier l. attacking rampart defended by two enemies: in ex., **VAALA.**
39. *Obv.*—Head of L. Regulus bare, r.
Rev.—Modius between two corn-ears: above, **L. LIVI-NEIVS**; in ex., **REGVLVS.** [Pl. XIII. 2.]
40. *Obv.*—Head of Ceres, in wreath of corn-ears, l.
Rev.—Q. Cornuficius, standing veiled, togate l., crowned by Juno Sospita standing l., head in goat-skin, holding sword and shield, raven on shoulders: in field, l. and r., **Q. CORNVFICI • AVGVR IMP.**
41. *Obv.*—Head of Pompey the Great, bare, r.: in front, lituus; behind, jug; around, **MAG. PIVS IMP. ITER.**
Rev.—The Catanaean brothers carrying their parents on their shoulders: between them, Neptune, standing l., r. foot on prow, holding acrostolium: above and in ex., **PRAEF • CLAS • ET ORAE MARIT • EX S • C.** [Pl. XIII. 3.]
42. *Obv.*—Head of Octavian, bare, r.: around, **CAESAR III VIR R • P • C •.**
Rev.—Curule chair, on which lies laurel-wreath, inscribed **CAESAR DIC. PER.**
43. (a) *Obv.*—Head of Augustus, bare, r.: in front, **AV • CVSTVS.**
Rev.—Equestrian statue of Agrippa, carrying trophy, set r. on platform, ornamented with two prows: around, **COSSVS CN. F. LENTVLVS.** [Pl. XIII. 4.]
- (b) *Obv.*—Head of Augustus, laureate, r.: around, **AVGVSTVS COS • XI.**
Rev.—Head of Agrippa, in rostral and mural crown, r.: around, **M. AGRIPPA COS • TER. COSSVS LENTVLVS.** [Pl. XIII. 5.]

30. B. ii, p. 578, No. 25 (cp. ii, p. 10, No. 9): cp. B.M.C. ii, p. 390.

Quoted from Morelli.

Finds show clearly that this coin was issued some years before 49 B.C.—how many it is impossible to state exactly. Most probably it belongs to the close of the great Gallic revolt under Vercingetorix. The priestly implements refer to the office of pontifex maximus held by Caesar since 63 B.C.: the elephant is supposed to be a "type parlant" for Caesar.

31. B. ii, p. 578, No. 26 (cp. ii, p. 11, No. 10); Bhr., p. 154, No. 14: cp. B.M.C. ii, p. 469.

Berlin, Copenhagen, Paris (cp. *Rev. Num.*, 1893, p. 40), Vienna, Hess Sale, Nov. 1912, Vierordt Sale, No. 449.

The date of this coin must be about 48 B.C.: the coin, then, was very probably struck in the East at about the time of Pharsalia. The types are drawn direct from the legendary history of the Julian house.

32. B. ii, p. 573, No. 10 (cp. i, p. 314, No. 1); Bhr., p. 149, No. 6: cp. B.M.C. i, p. 527 f.

Berlin, British Museum, former Cohen Coll., Hess Sale, Nov. 1912.

The restored coin omits the T on the reverse of the original. Finds give a date very near 46 B.C. Probably the coin was struck in 45 B.C., the year of the campaign of Munda. The fact that this coin was imitated in Spain by the Galbans in A.D. 68 suggests that it may have circulated largely in that province.

Moneta, or Juno Moneta, is of course the patroness of the mint, and the reverse types show a set of mint appliances, with the cap of Vulcan, the patron of smiths.

33. B. ii, p. 577, No. 22 (cp. i, p. 279, No. 50, p. 477, No. 1); Bhr., p. 152 f., No. 12: cp. B.M.C. ii, p. 573 f. **METELL**•, not **METEL**•, is probably the right reading on the reverse.

Berlin, Milan.

The original was struck in Africa in 47-46 B.C., when Metellus commanded the remnants of the Pompeians against Caesar. Eppius afterwards struck for Sextus Pompey in Spain.

34. (a) B. ii, p. 586, No. 54 (cp. ii, p. 520, No. 20): cp. B.M.C. i, p. 536.

Quoted from Morelli.

(b) B. ii, p. 586, No. 55 (cp. ii, p. 519, No. 17): cp. B.M.C. i, p. 534 f.

Vienna.

Probably struck in the same year as the original of No. 32, i.e. 45 B.C. The types are of doubtful interpretation: the only certainty is that the fantastic applications of the moneyer's family history to the types which have been made leave us unsatisfied. A hint of Caesar's Eastern plans may be seen in the head of Sol.

35. B. ii, p. 574, No. 13 (cp. i, p. 352, No. 11): cp. B.M.C. i, p. 567.

Berlin, British Museum, Naples, Paris, Hess Sale, Nov. 1912.

The original was probably struck in 44 B.C. The types refer to the exploits of M. Claudius Marcellus, the captor of Syracuse, in 212 B.C.: on the reverse he is shown depositing the "spolia opima", which he won in 222 B.C., in the temple of Jupiter Feretrius. The

"spolia opima" were voted to Julius Caesar (Dio Cassius xliv. 4).

36. B. ii, p. 585, No. 50 (cp. ii, p. 476, No. 10): cp. B.M.C. i, p. 566.

Berlin, Paris.

The date of the coin is almost certainly 43 B.C., when the army of the Republic was attempting the relief of Mutina, besieged by Mark Antony. The types refer to the relief of Tusculum in 374 B.C. by the military tribune, Ser. Sulpicius Rufus.

37. B. ii, p. 574, No. 14 (cp. i, p. 356, No. 15): cp. B.M.C. i, p. 586.

British Museum, former Cohen Coll.

This moneyer was a successor of the moneyer of No. 36 and struck in 42 B.C. No special reference in the types has been discovered.

38. B. ii, p. 582, No. 40 (cp. ii, p. 265, No. 2); Bhr., p. 157, No. 22: cp. B.M.C. i, p. 571.

Naples, Paris, Van Vleuten Coll. (Bonn a. R.).

A colleague of the moneyer of No. 36, 43 B.C. The ordinary explanations of the types are quite unsatisfactory: is there, again, a reference to the siege of Mutina?

39. B. ii, p. 579, No. 31 (cp. ii, p. 145, No. 13); Bhr., p. 156, No. 17: cp. B.M.C. i, p. 581.

British Museum, Vienna (formerly Museo Tiepolo).

A colleague of the moneyer of No. 39, 42 B.C. The types have not been convincingly explained.

40. B. ii, p. 576, No. 19 (cp. i, p. 435, No. 3): cp. B.M.C. ii, p. 578.

Paris.

Struck in Africa by Q. Cornuficius as governor, probably in 43 or 42 B.C. Although a supporter of Caesar during his domination, he supported the senatorial party after his death and gave shelter to exiles, who fled from the proscriptions of the triumvirs. The type shows Juno Sospita, the protectress of these distressed citizens, crowning Cornuficius in honour of these good services.

41. B. ii, p. 582, No. 41 (cp. ii, p. 354, No. 27) : cp. B.M.C. ii, p. 560.

British Museum, Paris.

Struck in Sicily, probably at Catana, by Sextus Pompey, between 42 and 38 B.C. The coin is an interesting monument of "pietas", illustrated in the history of the famous Pompeian family.

42. B. ii, p. 578, No. 27 (cp. ii, p. 44, No. 89); Bhr., p. 155, No. 15; Gn., *Riv. It.*, 1897, p. 151, No. 1 (Augustus) : cp. B.M.C. ii, p. 405.

Berlin, Paris.

As Caesar is not yet described as "Divus", the coin should be earlier than his consecration. This would imply a date in 43 B.C. The wreath on curule chair may represent a "lectisternium"; for wreaths (*strophia*) were sometimes used on these occasions instead of heads of Gods. Grueber attributes the coin to Gaul: but it is more probably a camp coin, struck at his military head-quarters in Italy.

43. (a) B. ii, p. 575, No. 17 (cp. i, p. 430, No. 79; ii, p. 78, No. 234); Gn., *Riv. It.*, 1897, p. 136 f., who notes that the Gosselin specimen and his are from different dies); Bhr., p. 150, No. 9: cp. B.M.C. ii, p. 101; B.M.C., *Emp.* i, p. 25; Belfort Sale, 1888, No. 332.

British Museum, Gneccchi, former Gosselin Coll., Vienna.

(b) B. ii, p. 576, No. 18 (cp. i, p. 430, No. 8; ii, p. 79, No. 235, p. 557, No. 4); Bhr., p. 150 f., No. 10: cp. B.M.C. ii, p. 101; B.M.C., *Emp.* i, p. 25.

British Museum, De Quelen Coll. (No. 724), Paris, Vienna, Hess Sale, Nov. 1912; cp. Imhoof-Blumer, *Porträtköpfe*, Pl. I, No. 9.

These two coins were struck at Rome in 12 B.C. and celebrate the memory of M. Vipsanius Agrippa, the great general and admiral of Augustus. They form part of the last issue of gold and silver from the senatorial mint at Rome.

B.

IMPERIAL AUREI RESTORED BY TRAJAN.*

Julius Caesar.

1. *Obv.*—Head of Julius Caesar, bare, r.: **C · IVLIVS
CAES · COS · III.**

Rev.—Venus, half naked, standing r., leaning on column, holding helmet and spear: shield at her feet.

[Pl. XIII. 6.]

* For the sake of completeness we may notice here the following denarii:

(a) *Obv.*—Head of Augustus, bare, r.: **DIVVS AVGVSTVS.**

Rev.—Capricorn r. with globe and rudder: cornucopiae on back: **IMP. NERVA CAES · AVG · REST.**

(b) *Obv.*—Bust of Trajan, laureate, r.: **DIVVS TRAIANVS
PATER AVGVSTVS.**

Rev.—Hadrian standing l., sacrificing over altar: **IMP.
HADRIAN · DIVI NER · TRAIAN · OPT · FIL ·
REST.**

2. *Obv.*—Head of Julius Caesar, bare, r. : **DIVVS IVLIVS**.
Rev.—Nemesis advancing r., pointing with caduceus at snake which precedes her, and holding out fold of robe. [Pl. XIII. 7.]
3. *Obv.*—As on No. 2, but head laureate r.
Rev.—As on No. 2. [Pl. XIII. 8.]

Augustus.

4. *Obv.*—Head of Augustus, laureate, r. : **CAESAR AVGVSTVS DIVI F. PATER PATRIAE**.
Rev.—Crocodile r.
5. *Obv.*—Head of Augustus, laureate, r. : **DIVVS AVGVSTVS**.
Rev.—Eagle between standards. [Pl. XIII. 9.]

- (c) *Obv.*—Galley : **ANTONIVS AVGV R III VIR R. P. C.**
Rev.—Eagle between standards : **LEG VI : ANTONIVS ET VERVS REST.**

(a) Cohen (Augustus) 564; Gneecchi, *Riv. It.*, 1897, p. 149, no. 1.

British Museum, former Hoffmann Coll.

The reverse is copied from a reverse of a Spanish issue of Augustus (cp. B.M.C., *Emp.* i, pp. cx, 56). The capricorn was Augustus's natal sign : was it also Nerva's ?

(b) C. (Trajan) 663; Gn., p. 155, no. 1 (Trajan). Paris. The reverse type is not known for Trajan.

(c) C. (M. Antony) 83; Gn., p. 155 (M. Antony), 1, B. ii, p. 587, no. 56; cp. B.M.C., *Rep.* ii, p. 528.

British Museum (two specimens: different obverse and reverse dies—on one coin eagle faces r., on the other l.), Paris.

The famous legionary coin of Mark Antony restored. On the *obv.* **ANTONIVS AVGV R** replaces **ANT. AVG.** The legio VI Ferrata fought in the Parthian war of Marcus Aurelius and L. Verus.

The "cistophoric tetradrachms" of Augustus restruck by Hadrian (with legend **HADRIANVS AVG. P. P. REN.**) are something rather different: (cp. C. (Augustus) 576; Gn., p. 154 f., no. 1 (Hadrian)).

For the later series of restorations of the third century see article on Plevna find of Trajan Decius, *Num. Chron.*, 1924, pp. 210 ff.

Tiberius.

6. *Obv.*—Head of Tiberius, laureate, r.: **TI·CAESAR
DIVI AVG·F·AVGVSTVS.**
Rev.—Pax (Livia) seated r., holding branch and sceptre.

Claudius.

7. *Obv.*—Head of Claudius, laureate, r.: **TI·CLAVD·
CAESAR AVG·P·M·TR·P·VI IMP·X.**
Rev.—Spes advancing l., holding flower and raising skirt.
8. *Obv.*—Head of Claudius, laureate, r.: **DIVVS CLAV·
DIVS.**
Rev.—Concordia seated l., holding patera and double cornucopiae. [Pl. XIII. 10.]
9. *Obv.*—As on No. 8.
Rev.—Vesta, veiled, diademed, seated l., holding patera and torch.

Galba.

10. *Obv.*—Head of Galba, laureate, r.: **GALBA IMPERA·
TOR.**
Rev.—Liberty standing l., holding pileus and rod. [Pl. XIII. 11.]

Civil Wars.

11. *Obv.*—Bust of Jupiter, laureate, l.: in front, palm:
I·O·M·CAPITOLINVS.
Rev.—Vesta seated l., holding patera and torch.

Vespasian.

12. *Obv.*—Head of Vespasian, laureate, r.: **IMP·CAESAR
VESPASIANVS AVG·COS·VIII.**
Rev.—Captive kneeling l. or r. at foot of trophy.
13. *Obv.*—Head of Vespasian, laureate, r.: **IMP·CAESAR
VESPASIANVS AVG.**
Rev.—As on No. 12, but captive r. only.
14. *Obv.*—Head of Vespasian, laureate, r.: **DIVVS VESPA·
SIANVS.**
Rev.—Winged thunderbolt on throne. [Pl. XIII. 13.]

15. *Obv.*—As on No. 14.

Rev.—Large star with eight rays: above it, small busts of Mercury, on l., facing r., draped, head bare, caduceus over l. shoulder, and of Jupiter on r., facing l., bearded, diademed. [Pl. XIII. 12.]

Titus.

16. *Obv.*—Head of Titus, laureate, r.: **IMP · TITVS CAES · VESPASIAN · AVG · P · M.**

Rev.—Trophy, consisting of cuirass, helmet, shields, spears, and greaves. [Pl. XIII. 14.]

17. *Obv.*—Head of Titus, laureate, l.: **DIVVS TITVS.**

Rev.—As on No. 16.

18. *Obv.*—As on No. 17.

Rev.—Winged thunderbolt on throne. [Pl. XIII. 15.]

19. *Obv.*—Head of Titus, laureate, l.: **IMP · TITVS CAES · VESPASIAN · AVG · P · M.**

Rev.—As on No. 18.

20. *Obv.*—As on No. 18.

Rev.—Mars and Minerva, standing to front, on r. and l. respectively, facing one another, each holding spear and leaning on shield.

Nerva.

21. *Obv.*—Head of Nerva, laureate, r., with aegis: **DIVVS NERVA.**

Rev.—Nerva, holding branch and sceptre, drawn r. in car by biga of elephants, ridden by mahouts. [Pl. XIII. 16.]

22. *Obv.*—As on No. 21.*

Rev.—Two clasped hands.

* Is there an aegis on *obv.*? It is omitted in Cohen's description.

1. C. (Julius Caesar) 54; Gn., p. 151, No. 1; B. ii, p. 579, No. 29.

British Museum, Paris, Vienna.

2. C. (Julius Caesar) 56; Gn., p. 151, No. 2.

British Museum.

3. C. (Julius Caesar) 56; B. ii, p. 578 f., No. 28.

British Museum, Paris, Vienna.

Here, and indeed throughout this series, the types and legends are for the most part either new or, if old, not assigned to the right emperors. We have, in fact, an independent coinage, in which the restoration hardly extends beyond the obverse portrait. So here the obverse legend of No. 1 is new. The reverse of No. 1, Venus Victrix, though appropriate enough to the subject, is never actually used by Caesar himself. It is used by Augustus (Eastern denarii, B.M.C., *Emp.* i, p. 98 f.) and by Titus (as aureus and denarius, C. 283 ff.).¹⁰ The Pax-Nemesis of No. 2 (without the snake) appears first on the aureus of C. Vibius Varus (B.M.C., *Rep.* i, p. 590). It was a favourite type of Claudius (B.M.C., *Emp.* i, cliii, pp. 165 ff.) and was revived by Vespasian at the mint of Lugdunum (C. 283 ff.). The type suggests one aspect of the Augustan peace; Nemesis punishes offenders and also teaches moderation in triumph.

4. C. (Augustus) 575; Gn., p. 151 f., No. 3.

Berlin, Paris.

5. C. (Augustus) 574; Gn., p. 151, No. 2.

British Museum, Naples, Paris.

¹⁰ Cp. a variety of the type used by Caesar's own moneyers, M. Mettius and L. Aemilius Buca (B.M.C. i, pp. 543 ff.).

The obverse legend of No. 4 was the one adopted by Augustus after 2 B.C. and kept in use for the rest of his reign (B.M.C., *Emp.* i, pp. 88 ff.). The crocodile, a symbol of conquered Egypt, was used as reverse for aurei and denarii of Augustus, struck in the East, 28-27 B.C. (cp. B.M.C., *Emp.* i, p. 106 f.). The eagle between standards is the famous type of Mark Antony (cp. B.M.C., *Rep.* ii, pp. 526 ff.). A similar type had been used by C. Valerius Flaccus (Gaul, c. 81 B.C.; B.M.C., *Rep.* ii, pp. 388 ff.) and by C. Nerius (B.M.C., *Rep.* i, p. 504). The type was revived by Clodius Macer (B.M.C., *Emp.* i, p. 286), Galba (B.M.C., *Emp.* i, pp. 334 ff.), and Vitellius (B.M.C., *Emp.* i, p. 383), and the moneymen of the Civil War (B.M.C., *Emp.* i, pp. 299 ff.).

The choice of Antony's reverse type for Augustus is probably conscious and deliberate.

6. C. (Tiberius) 77; Gn., p. 152, No. 1 (Tiberius).

Gotha, Naples, Sir Charles Oman Coll., Paris.

This is almost a true restoration of the well-known type of Tiberius, struck at Lugdunum during most of his reign (cp. B.M.C., *Emp.* i, pp. 124 ff.). The woman on the reverse, who holds what is probably a branch, not a flower, represents "Pax Augusta" with an indirect reference to Livia.

7. C. (Claudius) 111; Gneccchi, p. 152, No. 2.

Former Colson Coll.

8. C. (Claudius) 110; Gn., p. 152, No. 1 (Claudius).

Berlin, British Museum, Paris.

9. Gn., p. 152, No. 3.

Gneccchi Coll.

The reverse of No. 7 is borrowed from the famous sestertius of Claudius (cp. B.M.C., *Emp.* i, pp. 182 ff.): the reverse of Nos. 8 and 9 are never used by Claudius at all. The "Concordia" of No. 8 is used by Nero and Vitellius, the "Vesta" of No. 9 by the moneyers of the German armies in the Civil Wars and by Vitellius (cp. B.M.C., *Emp.* i, Index iv, s. v.). The obverse of No. 7 is of the first part of the year A.D. 46-47.

The "Spes" of Claudius himself is undoubtedly a dynastic type, referring particularly to the birth of the heir Britannicus. Used here, it should bear some more appropriate meaning. Trajan himself was born, according to one account, under Claudius, but not in the year A.D. 46-47. The meaning of the "Concordia" and "Vesta" will be considered later.

10. C. (Galba) 354; Gn., p. 153, No. 1 (Galba).

Berlin, British Museum, Paris, Vienna. Cp. also *Rev. Num.*, 1855, p. 170.

The obverse is of Galba's Spanish mint, the reverse of Rome as well (cp. B.M.C., *Emp.* i, pp. 312 n., 339). "Libertas", Galba's most popular type, is rightly chosen as the keynote of his reign.

11. C. (Galba) 434.

Vatican. Cp. also *Rev. Num.*, 1865, p. 170.

The original was probably struck by the rebellious armies of Upper Germany late in A.D. 68 (cp. B.M.C., *Emp.* i, pp. cc, 307). Trajan was called from the governorship of Upper Germany to the Empire.

12. C. (Vespasian) 648; Gn., p. 153, No. 1 (Vespasian).

Copenhagen, The Hague, Naples, Paris.

13. C. (Vespasian) 649.

Berlin, Florence (*Period. di Num. e Sfrag.*, 1871, p. 100), Gneccchi Coll. (*Riv. It.*, 1898, p. 169), Vienna.

14. Cp. C. (Vespasian) 650 (AVG. on *obv.*; in error?), Gn., p. 153, No. 2.

Berlin, British Museum, Paris.

15. C. (Vespasian) 647; Gn., p. 153, No. 3.

British Museum, Evans Coll. (*Num. Chron.*, 1886, p. 267; same dies as B.M.), Hess Sale, Nov. 1912. Cp. *Rev. Num.*, 1860, p. 362.

The captive at foot of trophy (reverse of Nos. 12, 13) occurs rarely in the early Empire (but cp. Augustus, B.M.C., *Emp.* i, p. 53; Vitellius, *ibid.*, p. 382). It is, however, a favourite type of Titus (cp. C. 295, 305 f., 334). The reference is, of course, to the Jewish War. The winged thunderbolt on throne (reverse of No. 14) also belongs to Titus (cp. C. 266, 314 ff.); it probably symbolizes a "lectisternium" of Jupiter. Vespasian is famous as the restorer of the Capitol, burnt by the Vitellians. The reverse of No. 15 is entirely new and at first sight strange. Its symbolism is, however, perfectly intelligible. The star as usual suggests "caelestes honores"—the consecration of Vespasian: the busts of Jupiter¹¹ and Mercury above suggest the character of the new god—a Jupiter to sustain the Roman world, a Mercury to prosper trade.

16. C. (Titus) 402; Gn., p. 153, No. 1 (Titus).

British Museum, The Hague, Paris, Vienna.

17. Gotha.

¹¹ It seems inadmissible to identify the bearded head as Hercules in the absence of his special symbol the club.

18. C. (Titus) 403; Gn., p. 154, No. 2 (Titus).

Berlin, British Museum, Gotha, Naples, Paris, Vienna.

19. Gotha.

20. *Revue Belge*, 1880, p. 60.

Lyons Museum.

The reverse of No. 16, a variant of Vespasian's reverse, Nos. 12, 13, is never used by Titus himself, though he uses Vespasian's types. For trophy types of the Early Empire cp. B.M.C., *Emp.* i, Index iv, s. v. The reverse of No. 17 has already been discussed. The reverse of No. 18 is entirely new: Mars and Minerva probably appear as representatives of the gods of war, to whom the captured arms are burnt (cp. Livy xlv, ch. 33). The obverse of No. 16 is the normal obverse of Titus as Emperor.

21. C. (Nerva) 150; Gn., p. 154, No. 1 (Nerva).

British Museum, Paris, Vienna.

22. C. (Nerva) 151; Gn., p. 154, No. 2 (Nerva).

Quoted from Caylus.

The reverse of No. 19 shows us Nerva now deified, escorted in effigy, probably in the circus procession, by the imperial team of elephants (cp. similar types of Divus Augustus, Divus Augustus and Divus Claudius, B.M.C., *Emp.* i, Index ii, Elephants, quadriga of).

The reverse of No. 21, clasped hands, is a fixed type of "Concordia", and suggests here especially the affectionate relationship between Trajan and his adopted father.

The restorations of Trajan, then, comprise a long series of Republican denarii, faithfully reproducing the types of the originals, and a much shorter series of Imperial aurei, not derived directly from any models and in many cases "restoring" hardly more than the portrait. There are no restorations of Trajan in *Aes*. Titus, Domitian, and Nerva had, it would seem, already done enough to keep alive the memory of famous types of *Aes* as they became outworn:¹² whereas in gold and silver Vespasian had hardly done more than to point the way. The weights of Trajan's restored coins are the normal weights of the aureus and denarius of his day (i.e. 114.1 grs., 7.39 grm., and 52.68 grs., 3.41 grm. respectively). The style too is that of the reign of Trajan. All these restorations are rare, and can only have been issued in relatively small numbers. In many cases only one obverse and one reverse die are known; in others there are two or three reverse dies to one obverse; in a few only are there varieties of obverse as well.¹³ The immediate

¹² It is curious that there are no restorations of Republican bronze.

¹³ I append the evidence so far as I have been able to examine it: *Republican denarii*.

One obverse, one reverse die in all cases except the following:

Two reverse dies: L. Rubrius, No. 11 *a* (on my list), Berlin, British Museum.

C. Memmius, No. 29, British Museum, Naples.

T. Carisius, No. 32, Berlin, British Museum.

Marcellinus, No. 35, Berlin, British Museum.

Augustus, No. 43 *b*, British Museum, Vienna.

Three reverse dies: L. Rubrius, No. 11 *b*, Berlin, Berlin, British Museum.

occasion of these reissues has fortunately been preserved for us by Dio Cassius, who tells us (lxviii. 15, A.D. 107) that Trajan "melted down all the worn-out coinage" ("τὸ νόμισμα πᾶν τὸ ἐξίτηλον ἐξεχώνευσε"). The title of Trajan in the "restoration" formula is consistent with this date, and we may reasonably assume that our coins were struck either in or soon after that year.¹⁴ Mommsen (*Das römische Münzwesen*, pp. 758 ff.) interprets Dio's account to mean that the government did not demonetize the old Republican denarii, but merely took the chance of making a little honest profit out of them. Whether, however, there was much profit in melting down worn Republican denarii and issuing full-weight denarii of Trajan's standard is

Two obverses,

Two reverses: Julius Caesar, No. 31, Paris, Vienna.
L. Livineius Regulus, No. 39, British Museum, Vienna.

Two obverses,

Three reverses: L. Lucretius Trio, No. 17 *a*, Berlin, British Museum.—Berlin, British Museum, Naples.
Brutus, No. 22, British Museum, Gotha.—Berlin, British Museum, Gotha.

Imperial Auri.

Two obverses: Tiberius, No. 6, Gotha, Sir Charles Oman Coll.

Galba, No. 10, British Museum, Vienna.
Vespasian, No. 12, Copenhagen, Naples.

Two reverses: Vespasian, No. 14, Berlin, British Museum.
Nerva, No. 19, British Museum, Vienna.

Two obverses,

Two reverses: Julius Caesar, No. 3, British Museum, Vienna.

Three obverses,

Two reverses: Titus, No. 17, British Museum, Vienna, Vienna.

¹⁴ Trajan would be celebrating his "vota decennalia" in A.D. 107; this would be a suitable occasion for a recoinage.

doubtful.¹⁶ When Mommsen observes that Antony's base denarii were spared under Trajan because of their very baseness, but melted down by Marcus Antonius and L. Verus, when the denarius had declined further in quality, he appears to be definitely in error: for there is only one solitary legionary restoration of those two Emperors, which was probably struck for a special occasion, and Antony's denarii continue long afterwards to occur in finds. We are face to face with the important, but very difficult, problem of legal tender in ancient times. We can only approach it from one side here—from that of period of circulation. The evidence is mainly drawn from finds. The earliest Republican denarii had not entirely disappeared from circulation at the end of the Republic.¹⁶ Republican denarii—mainly of the late second to first century B.C.—occur not uncommonly with Roman imperial coins before Nero.¹⁷ After Nero the only Republican coins to occur frequently are the legionary coins of Antony; the reduction of the weight of the denarius by Nero is a clear dividing

¹⁶ The difference in normal weight is 8.78 grs., 0.57 grm. The oldest Republican denarii of four scruples hardly come into the question. But, if we exclude plated coins, the Republican coins were apparently finer than Trajan's.

¹⁶ Cp. Grueber, *List of Finds in B.M.C., 'Republic'*, vol. iii.

¹⁷ For Republican coins in finds of the Empire add to Blanchet, *Trésors*, the following: Nuneaton Find, ending with Marcus Aurelius (*Num. Chron.*, 1881, pp. 396 ff.); Lightcliffe Find, ending with Caligula (*Num. Chron.*, 1861, pp. 79 ff.); Southants Find, ending with Vitellius (*Num. Chron.*, 1911, pp. 42 ff.); Long Ashton Find, ending with Philip I (*Victoria County History of Somerset*, i, p. 364); Hemel Hempstead Find, ending with Vespasian (*Archæologia*, 34, p. 397). Cp. also *Victoria County History of Somerset*, i, p. 287, ending with Trajan.

line.¹⁸ The old silver coinage was certainly obsolescent and Trajan only completed an inevitable natural process. But the mere fact of the existence of our series of restorations suggests that he may have formally withdrawn it from circulation. The base denarii of Antony, though not formally exempted, might maintain a precarious existence, and, as the denarius became baser and baser, would be more and more readily accepted. It is noticeable, too, that there are no restorations of imperial denarii later than the moneyer's coins of Augustus, though they were at least as profitable to melt down as the Republican. Was it intended that they should continue to circulate in worn condition beside the post-Neronian issues? However this may be, there can be no doubt that it was the disappearance of the older coinage from circulation that prompted these reissues.

As early as Titus it had been observed that the types of the *Aes* of the early empire were wearing out.¹⁹ Now thirty years later the same fate was overtaking the Republican silver; Trajan's mint-master recognized the virtual completion of the process which had

¹⁸ Cp. Mommsen, *Röm. Münzwesen*, pp. 770 ff.; Regling, *Römischer Denarfund von Frundenberg*, esp. pp. 30 ff.; Willers in *Num. Zeit.*, 1899, pp. 329 ff. and esp. 347 ff. An interesting find extending from Republican times to Vespasian is described in *Berliner Münzblätter*, 1914, June-July, pp. 112 ff.

¹⁹ This point was not sufficiently stressed in my paper in *Num. Chron.*, 1920, pp. 177 ff., as Sir Charles Oman very justly observed in his Presidential Address, Proceedings Num. Soc., *Num. Chron.*, 1921, p. 36 f. *Aes* of course would have a shorter life than silver: Epictetus, *Dissert.* 4. 5. 17 ("Τίσις ἔχει τὸν χαρακτῆρα τοῦτο τὸ τετρασάσαρον;"; "Τραϊανῶν." "Φέρε." "Νέμωτος." "Ἴψον ἔξω, ἀδοκίμῳ ἔστι, παρὸς") suggests quite a short term of currency. Cp. too B.M.C., *Empire*, i, pp. xxviii ff., on Countermarks.

begun at Nero's reforms, and he commemorated the decline of the old coinage with a noble historical memorial.

It is not too much to say that the occasion was taken advantage of and exploited in a very particular way. There was no absolute need to issue restorations at all: the issue must in fact have been decided by considerations of policy. Again, there is a deliberate selection from the vast number of Republican types available: to suggest, as Gneocchi has done, that all the Republican types still current were restored, but that not all have come down to us, is to stretch possibilities far beyond the credible. Some of the coins restored were decidedly rare, while common coins that still occur in finds of the first century A. D. are missing. And again in the imperial restorations, which are bound to the Republican by the same "restoration" formula and must therefore belong to the same occasion, the element of choice is obvious and seems almost to amount to pure caprice. And for the restorations of the aurei of Galba and his successors the question of obsolescence can hardly arise.²⁹ We conclude that Trajan and his advisers deliberately chose to continue the practice of commemoration in coinage, already practised throughout the early Empire and specially developed under the Flavians.

For a general discussion of these restorations I must refer to my paper in *Num. Chron.*, 1920, pp. 177 ff.,

²⁹ The heavy aurei of the Early Empire must, of course, have been melted down in great numbers: cp. Mommsen (*Das römische Münzwesen*, p. 770), who seems, however, to insist too much on the shortness of the period during which gold remained in circulation.

where I attempted to show that the policy of restoration was consciously used to maintain the imperial tradition, particularly in the transition from the Julio-Claudian to the Flavian dynasty, and to present that tradition with the necessary comments and omissions. Trajan further develops this policy and carries it to completion. He accepts the historical connexion, not only with the Julio-Claudian and the Flavian dynasties, but with the Republic itself. His restoration series represents the crowning attempt of the Roman mint-masters to represent Roman history as a harmonious and consecutive whole and to commend the Empire as its natural and happy conclusion.

We must not, of course, attach too much importance to such minor forms of propaganda as this. The Empire stood by the moral support of the Senate, and, in the last resort, by the brute force of the legions. But it was a rule of policy with all the best emperors to rule by consent, and not by force, and to despise no method of making acceptance of their rule easier. De Witte has shown, in an admirable paper (*Rev. Num.*, 1865, pp. 167 ff.), the stress laid by the government on the harmony between those "res olim dissociabiles principatus et libertas"²¹ under Trajan. Trajan's Republican restorations are to be taken as a conscious statement of this truth; the "Libertas" of the Republic is still preserved, and the Emperor need not fear to recall to memory even a coin of the "Liberator" Brutus. The enemies of the founders of the Empire—Cn. Pompey, Brutus, Mark Antony—are deliberately included.

²¹ Tac. *Agric.* 3.

We can now proceed to ask how Trajan's mint-master carried out his task; and, since the treatment of Republican and Imperial series is here so different, we shall do well to consider them separately.

How was the selection of types to be restored made from the very large number of Republican types available? That deliberate choice must have been exercised we have already seen above. Several distinct principles of selection can be recognized:

- (a) for historical and legendary interest;
- (b) for general interest of type;
- (c) for religious interest;
- (d) for family references.

After discussing these four principles, we will see if other factors still remain to be found.

(a) There is a distinct attempt to recall the memory of the legendary and historical glories of the Roman Republic. The foundation legend of Roma is commemorated in the figure of Roma with she-wolf and twins (No. 5). From the period of the kings we have portraits of Quirinus (Romulus) and Ancus Marcius (Nos. 28, 29). Striking events in Republican history are recorded—the relief of Tusculum by Ser. Sulpicius Rufus in 374 B.C. (No. 36), the capture of Privernum by C. Plautius Decianus Hypsæus in 329 B.C. (No. 25), the exploits of M. Claudius Marcellus against Gauls and Carthaginians in the late third century (No. 35), the defeat and capture of Perseus by L. Aemilius Paullus in 168 B.C. (No. 27), the surrender of Jugurtha to Sulla 106 B.C. (No. 23*a*), the subjection of Aretas of Nabathæa by M. Aemilius Scaurus in 64 B.C. (No. 25). Other famous men of the Republic to be honoured are

Pompey the Great (No. 41), M. Junius Brutus (No. 25), M. Vipsanius Agrippa (No. 43), and, of course, Julius Caesar (Nos. 30, 31) and Octavian (Nos. 42, 43), who, as links between Republic and Empire, appear in both series. The M. Tullius and C. Marius of our series (Nos. 4 and 10) may have been intended to recall the great Cicero and Marius, although they were of course quite different persons.

(b) In some cases the interest is of a more general character. Thus, we have types of great importance and long occurrence in the Republican series—the Dioskuri (Nos. 2, 3), the quadrigatus (No. 1), the bigatus (No. 23 *a*),²² the serratus (Nos. 12, 16)—but no longer serrated. We have the legends of Aeneas and Anchises (No. 31), Ulysses and the dog Argus (No. 12), the Catanaean brothers (No. 41). We have other types of topical interest—the Aqua Marcia (No. 28), the Basilica Aemilia (No. 20), the temple of Vesta (No. 24 *a* and *b*), the Puteal Libonis (No. 26). There is the famous army type—eagle and standards (No. 14), the elephant type with its suggestions of Carthage (No. 15), used later in a different context by Caesar (No. 30), the special mint type—cap of Vulcan, tongs, hammer, and anvil (No. 32). In a few cases, such as that of the soldier attacking a rampart on the reverse of C. Numonius Vala (No. 38), we suspect that there is an allusion that escapes us.

(c) It can hardly be an accident that nearly all the chief Roman divinities are represented:—Jupiter (No. 11 *a*), Juno (No. 11 *b*), Juno Moneta (No. 32), Juno Sospita (No. 40), Minerva (No. 11 *c*), Apollo (Nos. 18, 37),

²² Curiously enough no example of the early "bigatus" is restored.

Ceres (No. 15), Diana (Nos. 23 *a*, 37), Flora (No. 21), Hercules (No. 7), Janus (No. 1), Mars (No. 8), Mercury (No. 12), Neptune (No. 17 *b*), Roma (Nos. 2-6, &c.), Sol (Nos. 17, 34 *a*), Venus (Nos. 13, 31), Vesta (Nos. 19, 24 *a*). The personified qualities are less fully represented, but we still have Bonus Eventus (No. 26), Concordia (No. 27), Libertas (No. 22), Pietas (No. 15).

(*d*) In spite of the changes introduced by the Empire, many of the famous Republican "gentes" continued to hold a prominent position in the State. Although the conception which has long haunted Roman numismatics, that the "family" coins were in some special sense the property of the various families, is entirely false, yet the right to inscribe name, badge, and even type on the national coinage was unquestionably a showy distinction, and the "restoration" of a coin of a Republican family must have been felt as a great compliment to its posterity. If we turn to the "Prosopographia Imperii Romani" for the history of the "gentes" represented in Trajan's restorations, we find that the "gentes" Aemilia, Caecilia, Cassia, Claudia, Cornelia, Marcia, Maria, Norbana, Servilia, Sulpicia, and Valeria still ranked high, that the "gentes" Clodia, Didia, Memmia, Norbana, Pompeia, Porcia, Quinctia, Rubria, Scribonia, Titia, and Tullia enjoyed a somewhat lesser consideration, whilst other "gentes"—Carisia, Cornificia, Decia, Eppia, Horatia, Lucretia, Mamilia, Minucia, Numonia, and Servia—had sunk into relative insignificance. In this last class of families we find some that had in old times been famous; others, however, had never, so far as we can tell, distinguished themselves, and, in these cases particularly, other reasons for restoration must be

sought. In a number of cases the family reference seems to be predominant, though in some it may rest on historical error; such cases are M. Tullius (No. 4), associated with Cicero, M. Cato (No. 9), associated with Cato Uticensis, C. Marius (No. 16), associated with the great Marius, Regulus (No. 39), conceivably associated with the Regulus of the First Punic War, P. Galba (No. 19) probably honoured as an ancestor of the Emperor Galba.

The application of the principles we have been discussing will at least make the series of restorations intelligible. But is there any other principle at work which will, if discovered, lead us with necessity to the particular choice made? Did Trajan's advisers possess a full knowledge of the dates and occasions of the Republican issues and did this knowledge influence their selection? In the series we can find records of the First and Second Punic Wars, of the Jugurthine War, the great Cimbrian invasion, the Social War, the Civil Wars of Marius and Sulla, the Sertorian War, the Eastern campaigns of Pompey, the great Civil War of Caesar and Pompey, and the wars of the second triumvirate. The question can only be answered after a very careful study of the circumstances of the various issues. It may, however, safely be said that, while for the last century of the Republic it is possible that this form of historical interest was considered, for the earlier period nothing at all was known. The period from the Second Punic War to Tiberius Gracchus is entirely neglected: the coinage is hard to assign to its several occasions to-day, and it was probably no easier then. When we get back to the third century we find positive evidence of historical

ignorance. Two denarii, which on no theory could have been earlier than c. 240 B.C., are definitely connected with the great men of much earlier date—Horatius Cocles and P. Decius Mus. We can only assume that Trajan's mint-master knew nothing of the true history of the early Roman mint, and simply accepted the popular tradition that coinage at Rome went back to the time of the kings.

To sum up: the main object of the restoration of Republican denarii seems to have been to revive the glorious memories of the old days and to link them up with the new glories of the Empire, while at the same time the claims of religion and the ancestral honours of the Roman aristocracy were not entirely forgotten. The choice seems to have been made in the spirit of Livy's Roman history—a spirit of the keenest interest and devotion, but only partly illuminated by knowledge. The pageant of Roman history, unrolled by Anchises before the eyes of Aeneas in the shades,²³ shows some remarkable points of contact; and further parallels may be found in the scenes of Roman history prophetically engraved by Vulcan on the shield of Aeneas.²⁴ Both passages are too long to quote in full, but should be read carefully in connexion with our series; some relationship between the poem and the coins there seems to be, but perhaps not a very close one.

With the Imperial series we find ourselves on somewhat different ground. Through it the continuity of Roman history from Romulus to Trajan is maintained,

²³ Vergil, *Aeneid* vi, ll. 756 ff.

²⁴ Vergil, *Aeneid* viii, ll. 625 ff.

but while the Republican period is treated as something fixed and changeless, the Imperial is regarded as still under the formative influence of the imperial line. The restorations of the Emperors by Trajan are in no sense slavish. The only element of pure restoration is the portrait: apart from this, the series is used to present the Empire in a particular light. It is significant that it is the aureus, the characteristic imperial coin, that is chosen. We start with Julius Caesar as Emperor and Consul—the allusion to his Dictatorship is left to the Republican series—and after death, as the god (“divus”). Venus Victrix is the divine ancestress of the “gens Iulia”, as giver of the victory that founded the Empire. The other type, Pax Nemesis, indicates that moderation in triumph which was the keynote of the better Imperial rule.²⁵ The conception is evidently an important one, and needs to be carefully studied. Augustus appears as “pater patriæ” and also as “divus”. The conquest of Egypt is selected for commemoration as his greatest exploit. The eagle between standards no doubt points to him as founder of the army system of the Empire. It can hardly be an accident that the famous type of Antony is chosen; it is well known how Augustus treated Antony’s children virtually as princes and princesses—a good example of that respect for Nemesis which we have just been considering. Tiberius, though not deified, is included²⁶ with his famous type, a representation of Livia, or “Pax Augusta”, specially suit-

²⁵ See note on the type of Claudius in B.M.C., *Empire* i, p. cliii.

²⁶ Cp. *Nam. Chron.*, 1920, p. 183, for his inclusion among Titus’s “restorations”. Tacitus had not yet “damned” his memory by his “Annals”.

able for his long pacific reign. Caligula is of course excluded. Claudius appears both with his lifetime title and as "divus". The selection of reverse types for him is curious. Spes, the type of his famous sestertius, is transferred to the aureus; but what has become of the reference to Britannicus, the heir-apparent?²⁷ We are driven, I think, to refer the type to the birth of Trajan in his reign, leaving the discrepancy in the exact year unexplained.²⁸ The types of Concordia and Vesta are not, indeed, unsuitable for Claudius, who was certainly devoted to the cause of religion, and aimed at harmonizing the conflicting elements in the state; but it is hard to see any special appropriateness. It is curious that his British victory is entirely overlooked: military glory was to be reserved, as far as possible, for Trajan himself. Galba is the next Emperor in the series; we are reminded by his reverse type that "Libertas" can coexist with the Empire.²⁹ Nero is missing, as are also Otho and Vitellius. The aureus (Jupiter-Vesta) of the Civil Wars was probably chosen for two reasons: (1) its reference to the two great Roman divinities, Jupiter and Vesta, and its Republican appearance; (2) its origin in the camp of the army of Upper Germany, an army which Trajan himself commanded at a later date. Vespasian and Titus are both honoured under their lifetime and their "consecration" titles. The trophy of Titus should be for the Jewish war, the trophy and captive of Vespasian for the British

²⁷ Cp. B.M.C., *Empire* i, p. clvi.

²⁸ The date of Trajan's birth is uncertain: A. D. 53 and A. D. 56 are both given.

²⁹ Cp. B.M.C., *Empire* i, pp. ccxii ff., for honours to Galba after death. Normally, if an Emperor did not suffer "damnatio memoriae", he was consecrated; but, in the early Empire, Tiberius and Galba are notable exceptions to the rule.

victories of Agricola.³⁰ The reverse of No. 15 shows us the consecration of Vespasian under the special care of Jupiter and Mercury; statues of these two gods flank the temple of Vesta on Roman aurei of the reign. The Mars and Minerva type of Titus seems suitable to the end of a campaign. Coins of Domitian are missing: the series ends with "Divus Nerva", with reverses showing his car in the "pompa circensis", and the clasped hands of fellowship. Nerva had been desperately unpopular with the praetorian guard, and had been compelled, with bitter reluctance, to sacrifice the murderers of Domitian to their vengeance. Trajan, on his adoption, brought the necessary strength to the government, and, after Nerva's death, duly celebrated his "consecration". No "consecration" coins of Nerva, however, appear to have been struck earlier than our series. It was probably considered inadvisable for a time to obtrude his memory on the general public; with the Senate, of course, his reputation was secure.

With Trajan the series of Roman restorations closes for more than a century. With the exception of the few noted above, the only commemorative coins now are the "consecration" issues of deified Emperors and Empresses. When Trajan Decius revived the practice of his namesake he still confined himself to "consecration" coins and omitted any restoration formula.³¹ There is good reason then for assuming that Trajan's restoration series was accepted as an historical monument to the Early Empire and Republic, which, once built, need not be built again.

H. MATTINGLY.

³⁰ Compare the dates at which originals of these "restored" types were struck.

³¹ Cp. *Num. Chron.*, 1924, pp. 235 ff.

XI.

NOTES ON A HOARD OF MEDIEVAL COINS FOUND AT STEIN, RINGERIKE, NORWAY.

In the month of May, 1924, a hoard of forty-six intact and twenty-six fragmentary silver coins was found in the mould beneath the floor of the ruined medieval church ("Olavskirken") at Stein (or Sten) near the Tyri-fjord, in the district called Ringerike, in Norway. No other archaeological objects were found together with the coins. These, being covered with oxide, have been carefully cleaned after their acquisition for the Numismatic Cabinet at the University of Oslo.

The find comprises silver coins of four groups :

- I. Norwegian coins, three of Olave the Holy (?);
- II. Anglo-Saxon coins, four of Æthelred II, fifteen of Cnut;
- III. German coins, twenty-four in all, chiefly of Otto III and Henry II;
- IV. Unidentified, illegible, and fragmentary coins, seventeen in all.

I. NORWEGIAN COINS.

OLAVE THE HOLY (?), 1016-1030.

1. *Obv.*—**✠ONLAFR✠ NORMANORV**

Bust to l., wearing pointed helmet; in front, cross potent on two steps. Outer, beaded circle.

Rev.—Unintelligible inscription. Short cross voided, with limbs ending in two pellets (or annulets), and a cross-staff (crosier) or sceptre in each angle. Square coin, 21 × 22 mm. Wt. 2.41 grm.

The bird bears a close resemblance to the bird, the Holy Dove, depicted on Æthelred's type X (Hild., type G). It also resembles the Dove on the reverse of No. 6, Tab. II, in Hauberg, *Myntforhold og Udmyntninger i Danmark indtil 1146*; cp. also Nos. 17 and 18 in Hauberg, *op. cit.*, Tab. VIII. There might further be a connexion between these bird-types and that seen on the Anlaf (Olave Quaran) coin, No. 2, Pl. XXIX in the B.M.C. of English Coins, Anglo-Saxon Series, vol. i. This bird is believed to represent the Viking Raven. Yet it may be of interest to recall to mind the opinion pronounced by the Rev. D. H. Haigh in his treatise on "The Coins of the Danish Kings of Northumberland":¹

"*The bird.* Its curved beak would seem to mark it as an eagle or hawk; but, this notwithstanding, I take it to be a dove, the symbol of the Holy Spirit, a type afterwards adopted as the reverse of the coins of Æthelred II, which have on their obverse the 'Agnus Dei'. It has been thought to be a raven, and connected with the famous standard of the sons of Ragnar, taken from them in the battle of Cynwith."

Schive (*op. cit.*) illustrates on Tab. I, No. 20, a coin with the Lamb on the obverse and the Holy Dove on the reverse. According to his opinion the coin is Norwegian and belongs to Olave the Holy; that it should be Danish and belonging to Cnut the Great he finds less probable, on account of the inscriptions making no references to the last-named king.

Hauberg (*Myntforhold, &c.*, Tab. II, No. 6) ascribes this type to Cnut and takes the bird to be the Dove. He mentions a variety without the halo. He compares

¹ *Archaeologia Eliana*, vol. vii, separate, p. 51.

the dove with that on the Æthelred type Hild. G. He also compares the bird with that on the Andernach Coin (Otto III), illustrated in Dannenberg, *Die Deutschen Münzen*, &c., Taf. 19, No. 434; Dannenberg himself calls the bird an eagle.

Which king named Olave do the inscriptions refer to: Olave Tryggvason (995-1000), Olave the Holy (1016-1030), or Olave the Tranquil (Olave Kyrre), (1066-1093)?

None of the determinable coins in the Stein Find can be dated later than the German sovereign, Henry II (1002-1024) and Cnut (1016-1035). The find contains no coins of Harold the Tyrant (Hardrada) (1047-1066). It therefore seems reasonable to exclude Olave the Tranquil in this connexion.

As for Olave Tryggvason one coin only has been ascribed to him (see Schive, *op. cit.*, Tab. I, No. 5). This coin, which was found in Sweden, was lost as early as the year 1767, and has been missing since then. No sure evidences can be afforded for ascribing it to Olave Tryggvason, as did the learned Swede Keder, and likewise Schive.

It therefore remains the most probable conclusion that Olave the Holy is the king referred to on the three coins of the Stein Find.

II. ANGLO-SAXON COINS.

ÆTHELRED II, 979-1016.

Hild. Type A.

Winchester.

4. *Obv.*—Hild. a. 5.

Rev.—+ ~~BY~~ VNSTAN ON PINTC

A variety not published by Hildebrand or Grueber. Mr. Galster, the Keeper of the Royal Collections of Coins and Medals in the National Museum in Copenhagen, kindly informs me that a specimen of the same variety occurs in the Royal Collections (Kjeldstrup Find, 207, No. 146).

Hild. Type E.

Theodford.

5. *Obv.*—h. $\overline{\text{ANGL}}$

Rev.—+ DIREFINE MO ðEOD

Winceaster.

6. *Obv.*—a. $\overline{\text{EL}}$

Rev.—+ FVLFN $\overline{\text{O}}$ ð MIO PINT

Uncertain.

7. (*Æthelred II?*)

Obv.—~~✠ E DERDEX~~ $\overline{\text{CLO}}$

Rev.—Illegible inscription.

CsUT, 1016-1035.

Hild. Type E.

Creekerne.

8. *Obv.*—a. 5.

Rev.—+ FINAS ON ERVE

Eoferwic.

9. *Obv.*—a. 6.

Rev.—+ SVNOLF MI.OEO

Leigeceaster.

(B.M.C. Type VIII.)

10. *Obv.*—a. $\overline{\text{ANGLOR}}$

Rev.—+ LEFNE ON LEI

Badly struck.

Lundene.

(B.M.C. Type VIII.)

11. *Obv.*—a. 5 (with ☉)
Rev.—+ ERDNOD ON LVND
12. *Obv.*—a. 5.
Rev.—+ LIPERD O~~SS~~ LVND~~SS~~
13. *Obv.*—a. ANGLOI
Rev.—+ LIFI~~SS~~ ON LVNDE
14. *Obv.*—a. 6 (with ☉)
Rev.—+ LIFINE ON LVNDE

In two fragments. A small fragment of the edge is missing.

Uncertain Mint.

(B.M.C. Type VIII.)

15. *Obv.*—a. 10.
Rev.—+ EARNOT ON DRAT (?)
- In three fragments.

Hild. Type E, Var. d.

Bricstow.

16. *Obv.*—a. A·NEL·OR:
Rev.—+ ECLPINE ON BRICZ

Hild. Type G.

Leigeceaster

17. *Obv.*—a. 2.
Rev.—+ EGNLEOF ON LEI:
18. Similar coin.

Lundene.

19. *Obv.*—b. 1.
Rev.—+ E~~L~~FRERD ON LVN:
20. Similar coin.

21. *Obv.*—b. 1.
Rev.—+ [LI] HINC ON LVNDEN:

22. *Obv.*—a. 3.
Rev.—+ PVL·RIC ON LVND:

In two fragments.

III. GERMAN COINS.

Upper Lorraine.

Verdun.

23. Dann. 99.—Bishop HALMO, 990–1024.

Netherlands.

Brussels.

24. Dann. 1441.—Duke LAMBERT, 994–1015.

In three fragments.

Rhine Country.

Cologne (or surrounding country).

25. Dann. 1176. Variety.—HENRY II, 1002–1024.

Friesian Country.

Deventer.

26. (?) Cp. Dann. 561, Tab. 24.—OTTO III, 983–1002.

27. Dann. 563.—HENRY II, 1002–1024.

Saxony.

28. Dann. 585.—Duke BERNARD I, 973–1011.

Dortmund.

29. Dann. 749.—HENRY II, 1002–1024.

Franconia.

Mayence.

30. Dann. 785.—HENRY II, 1002–1024.

Swabia.

Augsburg.

31. Dann. 1032.—HENRY II, 1002-1024.

Basel.

32. Dann. 972.—Bishop ADALBERO II, 999-1025 (?).

Unknown Mints.

OTTO III, 983-1002.

Adelheid Coins.

33-42. Cp. Dann. 1167. Nos. 41-42 are somewhat doubtful.
No. 42 worn, and in two halves.

Wenden Pennies.

43-46. No. 43 cp. Dann. 1331 ; variety.—No. 44 is likewise
a variety.—No. 45 cp. Dann. 1335 (?).

IV. *Unidentified and illegible Coins and Fragments.*

47-48. Unidentified coins.

49-53. Illegible coins.

54-55. Eight fragments.

A. FONAHN.

XII.

MEDALS OF TURKISH SULTANS.

[SEE PLATE XIV.]

UNTIL recently the medallic portraits of Mohammad II known to us were but four in number (not counting minor varieties), viz. those by Gentile Bellini, Bertoldo di Giovanni, and Costanzo da Ferrara, and what is known as the Tricaudet medal. The number has now increased to seven, although the new pieces cannot be said to have the same interest as the old, and none of them can be assigned to any known medallist.

It is not necessary here to describe in detail the medals by the three masters above mentioned. Bellini's medal is a work of surprising feebleness; evidently the painter had no capacity for modelling or medallic design. The obverse inscription on the earlier specimens is **MAGNI SÖLTANI MOHAMETI IMPERATORIS** (the monogram in the second word being the Greek monogram of **OY**). Some later castings read **F** after **SÖLTANI** and **II** after **MOHAMETI**, or have a crescent instead of vine-leaf at the beginning of the legend. On the reverse are three crowns in pale (of Constantinople, Iconium, and Trebizond, according to some, or of Asia, Greece, and Trebizond, according to others¹). The inscription is **GENTILIS BELLINVS VENETVS EQVES AVRATVS COMESQ. PALATINVS F.** The artist's name on some specimens has

¹ As Karabacek, *Abendländische Künstler in Konstantinopel* (Denkschr. K. Akad. Wien, 62, i, 1918), pp. 24 ff.

been read **BELENVS**, but this is probably a mere blunder, the **I** being small and placed above the foot of the second **L**.

There exists also, in the Naples and Bologna collections, a reduction of the obverse of this medal to less than half-scale (40 mm. as against 96 mm.).²

The date of the larger medal is fixed by the fact that Bellini went to Constantinople at the end of September 1479, and returned thence to Venice at the end of November 1480. The medal must have been made during this time or soon after. The obverse is closely related to the Layard portrait in the National Gallery.

The medal by Costanzo³—by far the finest of all the portraits of the Sultan—is dated 1481 on the obverse, with the inscription "Sultani Mohammeth Othomani Uguli Bizantii Inperatoris". On the reverse, which has a fine equestrian figure of the Sultan riding through a rocky landscape, is the inscription "Mohameth Asie et Gretie Inperatoris ymago equestris in exercitus" (to which we may supply "proficiscentis"), and the artist's signature "Opus Constantii". Some specimens read "Eretie" instead of "Gretie". There is also a later version with the inscription "Suitanus (*sic*) Mohameth Othomanus Turcorum Imperator" on the obverse, and on the reverse "Hic belli fulmen populos prostravit et urbes", with the signature "Constantius f.". This version appears to have been made by cast-

² Aldo de Rinaldis, *Medaglie dei Secoli XV e XVI nel Mus. Naz. di Napoli*, no. 660.

³ Illustrated best in Friedländer, *Ital. Schaumünzen*, Pl. XXXVIII, or (the rev. only) in B. M. *Select Ital. Medals*, Pl. 20, No. 2. It is discussed by Karabacek, *op. cit.*, pp. 21 ff.

ing from the original, with alteration of the legends and loss of certain details.⁴ "Uguli" is a latinization of "oghul", "son", in the sense of descendant (Mohammad's own father was Murad II).

Costanzo of Ferrara, who worked chiefly at Naples, was summoned thence at an unknown date to paint the portrait of Mohammad. The painting has unfortunately not survived. He stayed at Constantinople a long time, and returned to Italy only after the Sultan's death (3 May 1481).

On the ground that Mohammad on this medal looks of powerful physique, whereas early in 1481 he was already suffering from the disease which carried him off on 3 May (not 2 July, as some have stated), Karabacek maintains that the medal must have been designed at an earlier date than the year it bears. He takes the leafless trees on the reverse (which are, however, merely a feature borrowed from the Pisanellesque tradition) to indicate a winter scene, viz. that in the plain of Dâud Pasha, where early in 1478 the Sultan assembled his army before moving on to Sofia. This date he supports further by the fact that an embassy from Ferdinand reached Constantinople in the spring of that year, and Costanzo might have accompanied it. The Sultan, apart from occasional fits of gout, was then still in good health, but owing to corpulence rode with difficulty; hence the high stirrups, contrary to the usage of the time. Since we know that Costanzo stayed at Constantinople some years, an earlier date than 1481 for the first design of the medal is not

⁴ A specimen (Dreyfus Coll.) is figured by Heiss, *Niccolò Spinelli*, Pl. X, No. 1.

impossible, though the identification of landscape proposed by Karabacek has little to be said for it, in view of the conventions of medallic design at the time.

The medal by Bertoldo di Giovanni is not dated. There is no evidence that Bertoldo ever went to Constantinople, and it is generally agreed that the portrait is not from life. It is usually assumed that it is derived from Bellini's medal. I can see no reason for this assumption. The two renderings are not very similar. Bertoldo's is the better of the two, though that is not saying much for it. It also shows the Sultan wearing a crescent pendant, which Bellini's medal does not. But there is no reason to dispute Geh. von Bode's⁵ date of 1480-1 for the work, though his reasons may not be very convincing. Apart from the supposed derivation from Bellini's medal, one of these reasons is that, by the tenor of the inscription, the Sultan is supposed to be still alive. Now the legend on the obverse is "Maumhet Asie ac Trape-sunzis Magneque Gretie Imperat". If *imperare* could govern the genitive case, there would be some excuse for taking the last word as the present indicative of the verb; but it is, of course, an abbreviation for *imperator*. More to the point is the fact that about the date mentioned Lorenzo de' Medici was in close touch with the Sultan.

The Tricaudet medal is represented by a single silver specimen in the Paris cabinet.⁶ On this the Sultan appears younger, with slight beard and whiskers

⁵ *Bertoldo und Lorenzo dei Medici*, 1925, p. 18 f.

⁶ The best illustration is in Heiss, *Niccolò Spinelli*, Pl. VIII, No. 1; the most recent discussion by Karabacek, *op. cit.*, p. 8, with Pl. I.

and moustache (?). He wears a soft cap covered with loosely wound cloth, leaving the shaven back of his head bare, and adorned with two feathers. His caftan shows an incised pattern and is buttoned down the front. The inscription, on a stippled field, is "Magnus Princeps et Magnus Amiras Sultanus Dns. Mehomet". In the centre of the reverse, on a circular field, are three eagles' heads to l, two and one. On a broad sunk stippled margin is engraved the inscription "Jehan Trieaudet (*sic*) de Selongey a feyt faire ceste piece", in a gothicizing script.

The whole medal has been ruthlessly and unintelligently tooled by order of the person who had this, the only known specimen, altered from whatever it originally was. He was doubtless the Jean Tricaudet who is known to have been living at Selongey (Côte-d'Or) in 1460. The two feathers substituted for the usual point of the head-dress are presumably the restorer's work. The piece is now worthless iconographically, but there can be no doubt that Mohammad II, at a comparatively early age, is intended. "Magnus Amiras" is the translation of al-Amir al-'Azam. "Sultanus", according to Karabacek, is the equivalent of Sultan in the sense not of Emperor, but of Lord, Dominus; for Karabacek holds that Sultan was not used in the former sense by Mohammad until 1474. One would like more evidence of this than he gives, and, in any case, too much stress must not be laid on the early coins, which had no space for long titles. Karabacek, who would date the original medal about 1454-5 (Mohammad having been born on 31 March 1430), explains the three eagles' heads not as corresponding to the three crowns in Bellini's

painting and medal (which would not suit his date, since Trebizond was not taken until 1461), but as symbols of Brusa, Adrianople, and Constantinople. No serious deductions can be drawn from so severely restored a portrait as this, and there is really no reason against conjecturing a date between 1460 and 1470. The connexion with Matteo de' Pasti suggested by Armand, who has been followed by others, is ruled out by the fact that Matteo never went to Constantinople, though he started and got as far as Candia. Until an unaltered specimen is found it is idle to speculate on the authorship of the original.

We now come to the recently discovered medals.

Obv.—(Four-petalled rose on stalk with two leaves)
MAGNVS • 7 • ADMIRATVS • SO LDANVS •
MACOMET • BEI Bust l. of the young Sultan, with small moustache, wearing conical cap, with cloth wound round in threefold spiral; dolman buttoned down front, with standing collar; and figured caftan with falling collar lightly trimmed with fur.

Rev.—No inscr. Nude male bearded figure reclining r. on rocks, holding in outstretched r. a twisted flaming torch; in r. background a tower with large sphere surmounting top story; rocky ground rising on l. (with small ruin?) and r. (with leafless tree).

Oxford, Ashmolean. 61 mm.

Vienna. 61 mm. J. von Karabacek, *op. cit.*, p. 13 f.

The reverse, according to Karabacek, alludes to the destructive conquests of Mohammad; the tower is a minaret of the old square form. The figure is a clumsy copy of that on one of Pisanello's medals of Leonello d'Este. Karabacek connects the medal with the capture of Constantinople in 1453, when Mohammad was twenty-three years old. The portrait, he holds, is done from the life, the dress being correctly rendered,

whereas later artists frequently misunderstand the details of costume. The **Z** = *et* in the obverse inscription is, on the other hand, an error; the title should be as in the Tricaudet medal, *Magnus Admiratus* (for Amiras), i.e. al-Amîr al-'Azam. The title Bey is paralleled by documents of the earlier part of the reign, e.g. the capitulation of Zaganos Pasha for the Genoese of Galata of 1453 (*ἐγὼ ὁ μέγας Αὐθέντης καὶ μέγας Ἀμυρᾶς Σουλτάνος ὁ Μεχμέτ Μπεής κτλ.*), and the letter of Sigismondo Malatesta (before 1463), "ad illustrissimum et excellentissimum Dominum Mahomet Bei Magnum Admiratum et Sultanum Turohorum".

It does not seem possible to attribute the medal to any known artist, but it is probably Venetian or Ferrarese work of some year after 1453. Karabacek's attempt to fix the date by the sitter's apparent age errs by too great precision. Some of the letter forms, such as **B**, **G**, and **Z** for **ET**, are used by Baldassare d'Este, but he is not heard of before 1461.

The motive of the reverse suggests that this is the medal of Mohammad mentioned by Paolo Giovio as the work of Pisanello in a letter to Cosimo de' Medici, quoted by Vasari.

The following two medals have not been described before :

Obv.—**MAHEMET HOTVMANI FILIVS** Bust r., with short beard, wearing turban and caftan.

Rev.—**ET THEVCRORVM PRINCEPS** Pegasus springing r.

Oval, ↓ 49 × 41 mm. Pesaro, Museo Oliveriano.

[Pl. XIV. 2.]

"Filius" is here the translation of "oghul" in the sense of descendant. Thus we have **OCTHOMANI VGVLI** on the medal of Costanzo, above.

This medal represents Mohammad as older in years than the two last described, and may perhaps be dated in the seventies, or even be posthumous. I can make no suggestion as to the authorship, or as to the meaning of the Pegasus.

Obv.—Bust of Mohammad r., with beard and moustache, wearing turban and robe drawn across his breast. No inscription.

Rev.—Incised inscription in two lines **TEROR | CHRISTIANORVM**

74 mm. Vatican.⁷

[Pl. XIV. 1.]



FIG. 1.

The inscription on the reverse looks to me later than the medal itself, and hardly earlier than the sixteenth century. The portrait is powerful, though the work is rough. Here again I can suggest no author.

⁷ I have to thank Comm. Camillo Serafini for allowing this medal to be photographed for me.

These medals help us to realize the fascination which the "Terror of the Christians" exercised over the Italians. There must have been a number of other paintings of him besides the one by Bellini that has come down to us; Costanzo, for instance, was a painter, and it was to paint Mohammad's portrait that he went to Constantinople. One may mention here the interesting picture in Capt. E. G. Spencer-Churchill's gallery at Northwick Park, which bears the signature G. BELLINVS, and shows a man, with elegantly-pointed beard, got up in Turkish costume. It has long been recognized that the signature is false, and that the tradition (recorded by Ridolfi) identifying the picture with Gentile Bellini's portrait of Mohammad II is unfounded. It has been suggested that the man is Cesare Borgia.⁸

Another portrait which has wrongly been supposed to represent the Sultan is a drawing in the Louvre, which shows the Emperor John Palaeologus on horseback, and which has, I believe wrongly, been attributed to Pisanello.⁹

Mohammad was followed in 1481 by Bayazid II, of whom we have no medals. Of Selim I (1512-20)

⁸ The *Catalogue of the Collection of Pictures at Northwick Park* (1921, No. 6) proposes Bartolommeo Veneto as the painter.

⁹ Karabacek, who judges by a photograph, maintains the attribution to Pisanello. The drawing is well reproduced in *Les Dessins de Pisanello et de son École conservés au Louvre*, Paris, 1911, Pl. 72. Karabacek somewhat hastily infers, from the fact that I gave a reference to the reproduction in Heiss, *Vittore Pisano*, p. 44 (then the only one published), that when I doubted Pisanello's authorship (*Pisanello*, p. 111, note) I was unacquainted with the original drawing. I had, however, made a careful examination of it together with the hundreds of other drawings by Pisanello and his school.

I believe we have a medal in the following unique piece, permission to publish which I owe to the kindness of its possessor, M. Claudius Côte.

Obv.—**SOLTANSALI WA TEMAN** Bust l., with moustache, wearing turban, and gown with collar.
No reverse.
49 mm. M. Claudius Côte, Lyon. [Pl. XIV. 3.]

"Sali" is more probably meant for Salim or Selim than for Soliman. "Hateman", in spite of the gap between the **A** and the **T**, I take to be one word, and intended for "Othman"; possibly the gap was once filled by a **C** (as in "Oethomani" on Costanzo's medal above described) which was removed as incorrect.

Some of the engraved portraits of Selim I represent him with a beard, e. g. that in Knolles's *General History*, 1603, p. 498. In a genealogical tree¹⁰ with medallions of Sultans down to Selim II (1566-74) he is more or less as on this medal. But little reliance can be placed on these later portraits. At the same time it must be admitted that the present medal is not necessarily from the life, or based on an authentic portrait; it may quite well be due to the medallist's fancy.

The medals of Suleiman II are two in number. There is, first, the well-known large piece¹¹ without reverse (max. diam. 130 mm.), with his turbaned head to left, inscribed **SOLYMAN IMP. TVR.** (or **SOLIMANVS TVR. IMP.** or **SOLIM. TVRC. IMP.**). Secondly, there is the curious piece in which he is represented with Charles V.¹² The bust of the Western

¹⁰ B.M. Dept. of Prints and Drawings.

¹¹ Armand, ii, p. 181; best illustrated in the Lanna Catalogue, Pl. 20, No. 329 (now in Mr. Henry Oppenheimer's collection).

¹² M. Bernhart, *Bildnismedaillen Karls des Fünften*, Pl. XV, No. 189.

Emperor is placed in the middle, his head turned three-quarters r.; to the right, behind Charles, appears the profile of the Sultan; and on the left is the head of an angel, who appears to be whispering to Charles the



FIG. 2.

words of the elegiac couplet which is incised in two circles around the composition: "Te decet O felix ultra plus pergere Cesar; Cesareo presens decidet ense caput." "Presens caput" is evidently the head of the

Sultan, which is to be cut off by the Emperor's victorious sword. The medal must have been designed at some time when Charles was preparing, or when it was desired that he should prepare, to oppose his rival; for instance, in 1532 when, Suleiman having invaded Hungary, Charles (appearing for the first time at the head of his troops) took command of a great army at Vienna—though little was done on either side except marching and countermarching. The hortatory tone of the inscription would well express the impatience of the militant party on this occasion.

On both these medals Suleiman is represented beardless, as in the engraving in Knolles's *General History*, p. 566, and in the majority of other engravings. According to another tradition, represented by certain engravings, one of which at least, the genealogical tree above mentioned, goes back to the end of the sixteenth century, he wore a beard. The remark made above about the engraved portraits of Selim I applies here also.

For completeness' sake I reproduce in fig. 2, with the kind permission of M. Carle Dreyfus, and from a photograph supplied by him, the cut-out plaquette of a Mohammadan in the collection formed by M. Gustave Dreyfus. It may be of the sixteenth century, and represents some high military or naval officer rather than a Sultan. The present reproduction is on the scale of the original; an illustration formerly published, on a smaller scale, is labelled "Courtisan de Mahomet II".¹³

G. F. HILL.

¹³ *Les Arts*, No. 80, Août 1908: "La Collection de M. Gustave Dreyfus (Médailles et Plaquettes)", p. 8, fig. IX.

MISCELLANEA.

NOTE ON A MONOGRAM ON CERTAIN COINS OF HEROD THE GREAT.

THE monogram P appears on certain bronze coins of Herod the Great, B. M. Catalogue, *Palestine*, pp. 220-222, nos. 1-19. These coins are all dated in the third year, i. e. presumably the third year of Herod's reign. As it was towards the end of the year 40 n. c. that Herod was given the title of King by the Romans, his third year will probably be the year 38-37 n. c., the year in the summer of which he actually took possession of Jerusalem.¹ The siege lasted two months, and while it was in progress Herod retired to Samaria, and there celebrated his marriage with Mariamne.² The coins of the largest denomination (B. M. Catalogue, Pl. XXIII. 14-16³), with the tripod⁴ on the obverse and the peculiar "ceremonial head-dress",⁵ may perhaps recall this event; and the coins bearing a helmet⁶ on the obverse and a circular shield on the reverse (Pls. XXIV. 1, XLII. 6) the siege itself.

¹ E. Schürer, *Geschichte des jüdischen Volkes* (4. Aufl.), i, p. 359 n.

² Josephus, *Antiq.*, XIV. xv. 14; *Wars*, I. xvii. 8.

³ The Lewis Collection at Corpus Christi College, Cambridge, contains one specimen of this type.

⁴ With this tripod cf. the tripod on coins of Seleucus VI, Epiphanes (96-95 n. c.), e. g. Hunterian Collection Catalogue, iii, pl. LXX. 10; and on coins of Antioch in the first century n. c., e. g. Hunterian Collection Catalogue, iii, pl. LXXI. 29 (87 n. c.); 32 and 33 (22 n. c.). Cf. also E. T. Newell, *Num. Chron.*, 1919, pl. VI. 8 (Antioch, 39-37 n. c.).

⁵ So described by Mr. G. F. Hill, B. M. Catalogue, p. xcvi.

⁶ The helmet bears some resemblance to the Macedonian helmet on the reverse of coins of Antiochus VI (145-142 n. c.), e. g. Hunterian Collection Catalogue, iii, pl. LXVIII. 4; and on the reverse of coins of Tryphon (142-138 n. c.), e. g. Hunterian Collection Catalogue, iii, pl. LXVIII. 11, without the tall ibex horn.

The conjecture may be hazarded that the monogram⁷ upon these coins is the signature of an officer in charge of Herod's mint, otherwise unknown, of the name of Tigranes.⁸

The name occurs in Herod's own family. Alexander, Herod's eldest son by Mariamne, married a Cappadocian princess named Glaphyra, and by her had two sons, one of whom was called Tigranes⁹; and the other, whose name was Alexander, also had a son, Tigranes.¹⁰

J. W. HUNKIN.

⁷ An identical monogram occurs on certain coins of Tigranes I, of Armenia (B. M. Catal., *Seleucid Kings of Syria*, p. 103, nos. 3 and 4; Babelon, *Catalogue des Monnaies grecques de la Bibliothèque Nationale, les Rois de Syrie, d'Arménie et de Commagène*, pl. XXIX. 8; V. Langlois, *Numismatique de l'Arménie*, pl. II. 4). Tigranes I was in possession of Antioch in Syria from 83 to 66 B.C., and it was there that these coins were struck. They show on the reverse a figure representing the city of Antioch, seated upon a rock; and upon the rock the monogram P is stamped. Babelon (*op. cit.*, p. ccciii) suggests that it = TIGP , i.e. Tigranes; although this interpretation of the monogram does not necessarily follow from the fact that it occurs in a subordinate position on a coin of King Tigranes, since other monograms, e.g. A and S , occur in the same place on coins of the same type.

⁸ Tigranes is found as a slave name on terra sigillata, e.g. as the name of one of the slaves of M. Perennius at Rhetium (*temp. Augustus*). See F. Oswald and T. D. Pryce, *Terra Sigillata*, p. 131. Cf. B. M. Catal., *Rom. Pot.*, L. 109 (M. PERRENI TIGRANI), L. 111.

⁹ Josephus, *Antiq.*, XVIII. v. 4 (139); *Wars*, I. xxviii. 1 (552).

¹⁰ Josephus, *Antiq.*, XVIII. v. 4 (140). Josephus says that the former Tigranes was king of Armenia, and was accused at Rome, and died childless (cf. the Tigranes mentioned in the Ancyra inscription, *C.I.G.*, Boeckh 4040, col. iv, 11-13, who succeeded Erato about A.D. 15; see Langlois, *op. cit.*, p. 39). Josephus further states that the latter Tigranes, the son of Alexander, was sent to take possession of the kingdom of Armenia by Nero. See Rohden and Dessau, *Prosopographia Imp. Rom.*, iii, p. 318.

A NOTE ON THE FABRIC OF PTOLEMAIC BRONZE.

ALTHOUGH various explanations have from time to time been put forward to account for the presence of a small depression in the neighbourhood of the centre of most of the bronze coins of the Ptolemies, the precise function of this depression has always been more or less of a puzzle.

Careful examination of a considerable number of these coins indicates that the cast blanks, from which they were struck, have been subjected to a machining process, the tool marks of which, particularly in that portion of the coin adjoining the depression, have not been, in some cases, completely obliterated by the subsequent process of striking.

Such being the case, the function of the depression is easily explained. It is simply a central support in the blank for the central point of a suitable tool used to clear off the scoria, &c., left on the surface of the blanks by the rough process of casting by which they were produced.

Assuming this to be correct, the method of producing these coins would probably be as follows:

(1) Casting the blanks in rows of say from six to ten, as in the sketch.



(2) Making the depression above described on each side of the blanks by means of an ordinary centre punch.



(3) Facing up each side with a tool more or less similar to that indicated below; nothing, however, being done to the edges.



(4) Division of the bar into separate blanks.

(5) Striking the blanks between dies.

As regards the facing-up operation, it has been found by experiment that it can be done with a tool as above described when operated by an ordinary joiner's brace.

As large numbers would have to be dealt with it is not unlikely that the moneyers responsible for the issue of these coins availed themselves of some more powerful means of operating the facing tool, and that some primitive form of machine tool was made use of.

Evidence of the same process of cleaning up blanks is to be seen on many Imperial Greek bronze, particularly those struck in Moesia.

H. P. HALL.

REVIEWS.

Recueil général des Monnaies grecques d'Asie Mineure.
Commencé par feu W. H. WADDINGTON, continué et
complété par E. BABELON et TH. REINACH. Pp. iv +
276, with 43 plates. Paris, Leroux, 1925. Tome
premier (1^{er} Fascicule), 2^e édition.

THE extent to which new material has accumulated since the first edition of this fascicule was published in 1904 is surprising. Then Pontus and Paphlagonia occupied 210 pages with twenty-eight plates. In the new edition some eight complete sheets have been inserted in various places, distinguishing the new pages by asterisks—an arrangement which may, we fear, lead to some confusion in reference; though it is explained in the preface that any other arrangement might have caused still more confusion. The illustrations of the new coins are arranged on no less than fifteen plates, lettered A to P. The execution of the plates is hardly up to the mark of the first edition; but in this the book is not singular among post-war publications.

The lamented death of Ernest Babelon in 1924 has left M. Reinach solely responsible for this new edition. Without in any way disparaging the work of his dead colleague, we may say that the book has not suffered, though the labour of compiling it must have been greatly increased for the survivor.

The only satisfactory method of reviewing such a work as this is to collate the descriptions with a large collection, in the hope of adding to the author's information. That I do not propose to do, chiefly because the collections of the British Museum have been at the author's command, and he may be trusted to have incorporated all the material of importance for his subject. I may note, however, for completeness' sake, that there are specimens in the British Museum of the following:

Mithradates VI.

No. 14, ΕΣ and Η (1897).

No. 15, ΗΣ and Η (the Bunbury specimen).

ΗΣ and Θ (the Montagu specimen).

ΘΣ and no month (1905).

- No. 16, ΓΚΣ IB and two monograms as on Pl. III. 3 (the second monogram is not quite rightly given in the text).
- Aemilium or Haemilium, No. 1.
- Amasia, No. 5 (the Weber specimen).
- No. 31 (do.).
 Sept. Severus; rev. ΑΔΣΕΥ ΑΝΤΑΜΑCΙΑC - - -
 ΠΟΝ, and in field I. ΤΞ Nike advancing l., foot on
 CH globe, holding wreath and palm. Æ 30.
- Amisus, No. 73 (the Weber specimen).
- Comana, No. 9 (the Froehner specimen).
- Nicopolis ad Lycum, Nos. 4 and 7 (the Hamburger specimens).
- Abonotichus, No. 7. Apparently from the same obverse die; if so, the correct reading is ΑΥΚΑΙΑΝ
 ΤΩΝΕΙΝΟ.
- Germanicopolis.—Caracalla. ΑΝΤΩΝΙΝΟC CEB. Bust
 l., young, laur., with shield and spear. Rev. ΓΕΡ|
 ΜΑΝΙ|ΚΟΠΟ|ΛΕΩC in wreath. Æ 24 (Weber).
- The puzzling coin of Attalus Epiphanes recently acquired by the British Museum is placed under Paphlagonia, with the warning that the attribution is uncertain.

G. F. H.

The Work and Life of Solon. With a Translation of his Poems.
 By KATHLEEN FREEMAN. Pp. 236. Cardiff: University
 of Wales Press Board. London: Milford, 1926. 10s. net.

This book contains a chapter (pp. 90-111) entitled "Solon's Work on the Attic Coinage", which is a careful statement of the various theories evolved (down to 1924) by the best-known authorities in order to reconcile the conflicting literary statements (Androtion and Aristotle) with the archaeological evidence. The writer hardly attempts to do more than tell us what other people say, and shows no sign of knowing coins except from books. And unfortunately, though Mr. Seltman's book was published in 1924, it did not reach her hands in time to receive more than a brief notice in a foot-note. This is unfortunate, because, though the problem has not been solved by Mr. Seltman's publication, the perspective in which it must be viewed is considerably altered.

G. F. H.

XIII

NOTES ON SOME RARE AND UNPUBLISHED "PEGASI" OF MY COLLECTION.

[SEE PLATES XX, XXI.]

OF all Greek coins, the Pegasi, or staters of Corinthian type, are among those that are the least studied and known.

With the exception of the remarkable monograph of Imhoof-Blumer on the coins of Acarnania, Head, *B.M. Cat., Corinth*, and a few articles of our President, Professor Sir Charles Oman, very little has been written on the subject.

In "*Corolla Numismatica*,"¹ our President wonders why this branch of numismatics has hitherto been so neglected, and supposes the reason that has repelled students is the interminable iteration of the types of the Athena's head and the Pegasos.

Many other Greek series present the same monotonous repetition of types, and show even less variety than the Pegasi, the coins of Athens, for instance; still they are well studied, and considered as very attractive coins.

I venture to say, therefore, that the real reason is that, with a few exceptions, students and collectors simply disliked the Pegasi, and generally despised them as common, uninteresting coins not worth wasting time over, and this chiefly because they did not know them well enough.

¹ "The chronological sequence of the coins of Corinth."
NUMISM. CHRON., VOL. VI, SERIES V.

The *πῶλοι* were accepted almost everywhere as a kind of international currency; it was therefore necessary that types should not change. Still, if we consider that although the artists were fettered by the strictly limited choice of subjects, and they had no liberty at all to display their artistic talents, we must admit that some of the *Pegasi* are very remarkable in composition, design, and technique.

The obverse of all coins is generally considered the most important side, and the one that helps students most in the knowledge of the coins and in establishing the chronological sequences of the issues. There is no reason why it should not be the same with the *Pegasi*; still, strange to say, a close study of the obverses of these coins has been completely neglected, so much so that, for instance, even in the best catalogues very often only the reverses are illustrated. The explanation probably lies in the fact that owing to the high relief of the type of the reverse, the *παράσημον* of Corinth, viz. the *Pegasos*, remained, with very rare exceptions, on the obverse die.

This is certainly a mistake, and I venture to say that the knowledge of this series would be far more advanced if the obverses had been more closely scrutinized, and I am convinced that careful examination of a large number of obverses may lead to several important rectifications of attributions hitherto holding the field.

In fact, studying only the obverses of the few specimens of my collection, although they seem all alike, I was surprised to ascertain how far more interesting they are than the numerous reverses that look at first sight more attractive.

CORINTH.

1. *Obv.*—Pegasus bridled, with curled wing, flying l., beneath, Φ .

Rev.—Head of Athena r., hair in queue, wearing necklace and Corinthian helmet, within incuse square.

→ 18 mm. Wt. 8.42 grm. [Pl. XX. 1.]

The letter under the Pegasus is quite-peculiar; it is without any doubt an archaic form of the koppa. The tail of the letter, instead of beginning from the lower part of the O, begins from the upper part and crosses it. The letter therefore resembles a Φ .

This appearance, and the tail of the letter being off the flan, induced Babelon to attribute Jameson's No. 1138 to Phytia.²

2. *Obv.*—Pegasus with pointed wing, flying r., beneath, Φ .

Rev.—Head of Athena r., wearing over neck-guard Corinthian helmet; to r., $\text{A}\kappa$; to l., trident.

← 18 × 21 mm. Wt. 8.25 grm. [Pl. XX. 2.]

Similar to B.M., No. 241.³

The coin in the B.M. has the reverse from the same die, but the κ being off the flan the letters have been read $\text{A}\Lambda$. This coin should be placed near B.M. Cat., Nos. 360 and 365,⁴ the symbol, the magistrate's initials, and the style being the same.

3. *Obv.*—Pegasus with pointed wing, flying l., beneath, Φ .

Rev.—Head of Athena r., wearing Corinthian helmet over neck-guard and leather cap. To l. two

² *Traité*, tome iv, p. 37, No. 31, Pl. CCLXXII, f. 5.

³ Head, B. M. Cat., *Corinth*, p. 42, Pl. VIII. 2 and 5.

⁴ *Op. cit.*, p. 25, Pl. VI. 2.

birds standing opposed one to the other, beak against beak, like two pigeons billing.

→ 22 mm. Wt. 8.20 grm. [Pl. XX. 3.]

This coin is a variety of B.M., No. 346,⁵ the $\Theta\Upsilon\Xi$ being off the flan.

The symbol of this coin has always been described as a double-bodied owl. On my specimen, which is in brilliant condition, we can see that there is no double-bodied owl, but two distinct birds, one facing the other. The heads are in profile, and their beaks meet. The length of the beaks does not justify the supposition that they are owls.

Another striking peculiarity of this coin is that under the helmet there is the usual so-called leather-cap, and under that another one, but larger.

The fact of wearing two leather caps, one over the other, is certainly quite out of the question; the one resting on the neck may possibly be a leather cap, but the other is more likely to be a kind of jointed metallic guard.

4. *Obv.*—Pegasos with pointed wing, flying l., beneath, Φ .

Rev.—Head of Athena l., wearing Corinthian helmet over a neck-guard marked with scales; beneath, $\Lambda\Lambda$; to r., wheel.

20 mm. Wt. 8.50 grm. [Pl. XX. 4.]

From the Bement Collection.⁶ No. 242 of the B.M.⁷ has the usual plain neck-guard.

A similar coin has been described by Graf Miklos Dessewffy;⁸ he points out the peculiarity of the so-called leather cap on a Pegasos of his collection. This

⁵ *Op. cit.*, p. 39, Pl. VII. 8.

⁶ Naville, vii, lot 1191.

⁷ *Op. cit.*, p. 25, Pl. IX. 17.

⁸ *Journ. Int. d'Arch. Num.*, vol. 11, p. 24.

is not smooth, as generally is the case, but presents a scale-like surface, and he conjectures it may be a coat-of-mail, intended to protect the neck of the Goddess.

Svoronos⁹ publishes another Pegasos in the Museum of Athens, a variety of B.M. Cat., 243,¹⁰ that presents the same peculiarity.

These two coins confirm my previous statement; we are justified in concluding that the flap we generally see under the Athena's helmet on the Pegasi is not the visible part of a leather cap, but a piece of armour intended to protect the neck of the Goddess.

5. *Obv.*—Pegasos with pointed wing, flying l., beneath, ♀.

Rev.—Head of Athena l., wearing Corinthian helmet over neck-guard; to r., open hand.

← 18 × 22 mm. Wt. 8.48 grm. [Pl. XX. 5.]

From the Bement Collection (Naville, vii, lot 1173).

I do not know any other specimen of this coin with this remarkable symbol, no doubt a religious *apotropaion*.

6. *Obv.*—Pegasos with pointed wing, flying l., beneath, ♀.

Rev.—Head of Athena l.; to r., flying dove.

↘ 21 mm. Wt. 8.35 grm. [Pl. XX. 6.]

Found near Syracuse in 1924.

ERYX.

7. *Obv.*—Pegasos with pointed wing, flying l., beneath, 49~~4~~ (ARK) in Phoenician letters.

Rev.—Head of Athena r., wearing Corinthian helmet over neck-guard.

↑ 18 mm. Wt. 7.95 grm. [Pl. XX. 7.]

Found near Trapani (Drepanon).

⁹ *Op. cit.*, p. 24.

¹⁰ *Op. cit.*, p. 25, Pl. IX. 18.

This extraordinarily rare Pegasos, first published by J. Millingen¹¹ as *incertus*, is now for the first time photographed on Pl. XX. 7. He erroneously indicates that the coin was in Lord Northwick's cabinet, while it really was in the Hamilton Collection, and thence passed to the Six Collection.¹²

My coin is somewhat worn, but the inscription on the obverse is very distinct, and confirms the reading of Prof. Salinas.¹³

The style of the coin is rather poor and greatly differs from the other Sicilian Pegasi. It is of late date and shows distinctly a Carthaginian influence. The only other coin of Eryx with Punic inscription is the litra published by Salinas,¹⁴ and illustrated by Imhoof-Blumer.¹⁵ This coin is also of a very poor style.

We may conjecture that these two coins were issued under the Carthaginian domination, about 269 B. C., when Hamilcar removed the inhabitants of Eryx to Drepanon.¹⁶ This may explain why all earlier coins of Eryx have Greek inscriptions, while only these two late coins have it in Phoenician letters.

AMBRACIA.

8. *Obv.*—Pegasos with pointed wing, flying l., beneath, A.

Rev.—Head of Athena l., wearing Corinthian helmet adorned with olive-wreath; behind to r., caduceus; all in linear incuse square.

↑ 20 mm. Wt. 8.32 grm. [Pl. XX. 8.]

¹¹ *Ancient Coins of Gr. C. and K.*, Pl. II, No. 16.

¹² Imhoof-Blumer, *Monnaies grecques*, p. 18.

¹³ *Le Mon. delle Ant. Cit. di Sic.*, I. viii, p. 62.

¹⁴ *Arch. Stor. Sic.*, *Scoperta N. Fen. di Erice*, p. 498.

¹⁵ *Mon. Gr.*, p. 18.

¹⁶ Holm, *Gesch Sic.*, vol. iii, p. 17.

The incuse square and the style indicate that the coin belongs to a rather early date. B.M. 45 and 48¹⁷ are probably later revivals of this type.

9. *Obv.*—Pegasus with pointed wing, flying r., on hind-quarter, **A**; beneath, **A**.

Rev.—**AMBP**[**AKIΩTAN**], head of Athena l., wearing Corinthian helmet over neck-guard. The eye of the Goddess almost full face. Behind to r. girl standing to l. near a kottabos pole, which she holds with l. hand, and with r. hand about to seize the *πλάστιγξ* at the end of the pole (*ράβδος κοτταβική*).

↑ 20 mm. Wt. 8.27 grm. [Pl. XX. 9.]

From the Bement Collection (Naville, vi, lot 963; previously Hirsch, xxxi, lot 380).

The style and the beautiful composition of this coin makes it one of the most interesting Pegasi. I know eighteen specimens of it, all with the *rev.* from the same die, while the *obv.* are from three different dies, with the Pegasus flying r. or l., but all have an **A** on the hind-quarter of the Pegasus and only my specimen has another **A** beneath it.

The three following coins have all the same **A** on the Pegasus.

10. *Obv.*—Pegasus with pointed wing, flying l., on hind-quarter **A**.

Rev.—Head of Athena r., wearing Corinthian helmet over neck-guard, **A** on helmet, to r., [**AP**]**AΘ****ΘΟΞ**, to l., youthful river-god Aratthos seated on bull's head, facing and clasping his knee.

↓ 21 mm. Wt. 8.37 grm. [Pl. XX. 10.]

In my collection there is another similar coin, but with the name **ΑΡΑΘ**[**ΘΟΞ**] to l. over the river-god.

¹⁷ *Op. cit.*, p. 109, Pl. XXIX. 4.

Cf. B.M., No. 28,¹⁸ Millingen,¹⁹ and Imhoof-Blumer, *Fluss- und Meergötter*.²⁰

11. *Obv.*—Pegasus with pointed wing, flying l. on hind-quarter, **A**. From the same die as No. 10.

Rev.—Head of Athena r., wearing Corinthian helmet over neck-guard, to r., flying Eros binding olive-wreath round helmet, on which **A**.

↓ 20 mm. 8.38 grm. [Pl. XX. 11.]

Cf. B.M., No. 26.²¹

12. *Obv.*—Pegasus with pointed wing, flying l., on hind-quarter, **A**. From the same die as No. 10.

Rev.—Head of Athena r., wearing Corinthian helmet over neck-guard; **A** to left, to r., naked bearded hero, wearing pilos, with sword and shield in his hands.

↓ 18 mm. Wt. 8.36 grm. [Pl. XX. 12.]

The only other specimen of this coin that I have met with is in Paris,²² but is very poor, with the symbol incomplete.

13. *Obv.*—Pegasus with pointed wing, flying l., beneath, **A**.

Rev.—**A**, head of Athena l., wearing Corinthian helmet over neck-guard, on which **A**. The eye of the Goddess is almost full face; to l., Δ , π , and spear-head to r.

→ 19 mm. Wt. 8.70 grm. [Pl. XX. 13.]

The smallness of the **A** on the neck-guard, its hidden place, the presence on the coin of the large civic **A** and the magistrates' initials ΔE , leave no doubt that we have here the initial of an engraver's signature.

¹⁸ *Op. cit.*, p. 107, Pl. XXVIII. 9.

¹⁹ *Sylloge of Anc., &c.*, Pl. III. 29.

²⁰ *Fl. und Meerg. auf Griech. und Röm. Münz.*, p. 219, 5, Taf. iv. 14.

²¹ *Op. cit.*, p. 107, Pl. XXVIII. 7.

²² Babelon, *op. cit.*, p. 138, No. 297, Pl. CCLXXXI. 19.

This is therefore the first ascertained case of a signed $\pi\omega\lambda\omicron\varsigma$, and the artist who signs this die is certainly an outstanding one, if we consider the sober simplicity of the design and the serene expression of the Goddess.

The abnormal position of the **A** on the Pegasos of the above-mentioned coins 9, 10, 11, and 12, may suggest the hypothesis that the same artist engraved these obverses.

14. *Obv.*—Pegasos with pointed wing, flying r.

Rev.—Head of Athena r., wearing Corinthian helmet over neck-guard; to l., **A**, to r., crane l.

↑ 19 mm. Wt. 8.17 grm. [Pl. XX. 14.]

This coin corresponds to B.M. Cat., *Uncertain Mints*, No. 5,²³ on which a flaw obliterates the civic initial. Another coin of my collection similar to B.M. Cat., *Ambracia*, No. 41,²⁴ has the obverse from the same die. There is no doubt that it is a coin of Ambracia.

15. *Obv.*—Pegasus with pointed wing, flying l., beneath, **A**.

Rev.—Head of Athena l., wearing Corinthian helmet over neck-guard; to r., eagle with spread wings standing to r. with serpent in his beak.

← 19 mm. Wt. 8.40. [Pl. XX. 15.]

From the Brandis sale, Naples, 1922.

16. *Obv.*—Pegasos with pointed wing, flying l., beneath, **A'**.

Rev.—Head of Athena r., wearing Corinthian helmet over neck-guard; on helmet **A**, to l., grasshopper.

↑ 20 mm. Wt. 8.28 grm. [Pl. XXI. 1.]

From the same dies: Weber Collection 3830,²⁵ Barron Collection (Hirsch, xxx, lot 536, Anactorium), Museum of Athens, and Mr. Empedocles' Collection.

²³ *Op. cit.*, p. 141, Pl. XXXIX. 4.

²⁴ *Op. cit.*, p. 108, Pl. XXIX. 2.

²⁵ *Forrer, Descr. Cat. Coll. Weber*, p. 409, Pl. 141.

The obverse of the coin presents several flaws, a large one behind the Pegasus and several small ones beneath it and near the letter **A**. Two little linear flaws begin from the letter **A** and go in a slanting line towards the Pegasus. The letter looks therefore just like the well-known monogram of Anactorium **A'**. This is why this coin has been hitherto attributed to Anactorium.

17. *Obv.*—Pegasus with pointed wing, flying l., beneath, **A'**.
From the same die as above.

Rev.—Head of Athena r., wearing Corinthian helmet over neck-guard; to l., **Σ** and branch of a thorny plant, probably a kind of thistle; beneath, **AH**, to r., **A**.

→ 21 mm. Wt. 8.20 grm. [Pl. XXI. 2.]

Similar to B.M., No. 3, Anactorium.²⁶

18. *Obv.*—Pegasus with pointed wing, flying l., beneath, **A**.

Rev.—Head of Athena r., wearing Corinthian helmet over neck-guard; to l., **Σ** and Pan with goat's head and legs r., carrying a branch over his shoulder; before him, under his elbow, a very small **A**; beneath, **HA**, to r., large **A**.

↓ 18 mm. Wt. 8.42 grm. [Pl. XXI. 3.]

Similar to B.M., Nos. 1 and 2, Anactorium.²⁷

The obverses of Nos. 16, 17, as well as the B.M., Anactorium 1, 2, and 3, are all from the same die. The same flaws can be seen. From the appearance of the **A'** initial on these coins, Head was justified in attributing them to Anactorium, but there is no doubt that the coins are really from the Ambracian mint. Besides the fact that under the Pegasus there is only an **A**, and not the Anactorium monogram, there

²⁶ *Op. cit.*, p. 115, Pl. XXXI. 3. ²⁷ *Op. cit.*, Pl. XXXI. 1 and 2.

is the large civic letter on the reverses, and the general appearance of the coins that confirms this attribution.

The very small **A**, hidden in a corner under the elbow of the little figure of Pan on No. 18, may suggest that this is the signature of the engraver, probably the same that signs **A** on the neck-guard on No. 13.

CORCYRA.

19. *Obv.*—Pegasus with pointed wing, flying r., no letter.

Rev.—Head of Athena r., wearing Corinthian helmet over neck-guard; to l., Δ , to r., K[OP].

↑ 20 mm. Wt. 8.62 grm. [Pl. XXI. 4.]

In Paris²⁸ there is a coin with the obverse from the same die, the reverse has an amphora in the place of the Δ . This coin is of a very coarse style, the Goddess's head is flat, and the Pegasus unusually ugly.

STRATOS.

20. *Obv.*—Pegasus with pointed wing, flying l., beneath, Σ .

Rev.—Head of Athena r., wearing necklace and Corinthian helmet over neck-guard; to l., Acheloos' head in profile to l., to r., Σ ΤΡΑΤΙΩΝ. On the ear of the Goddess a big flaw.

→ 19 mm. Wt. 8.52 grm. [Pl. XXI. 5.]

Recently found in Sicily; from the same dies as the two other hitherto known specimens, in the Museum of Berlin.²⁹ All the three examples are from the same reverse die, with the flaw over the ear of Athena.

Imhoof-Blumer³⁰ did not know any specimen of this rare coin, and expressed his doubts about the existence

²⁸ Babelon, *op. cit.*, tome iv, p. 167, Pl. CCLXXXIV. f. 9.

²⁹ *Op. cit.*, p. 27, Pl. CCLXXI, f. 22, 23.

³⁰ *Die Münzen Akarn.*, p. 157.

of the stater described by Mionnet,²¹ after Sestini, with the bad reading **ΞΤΡΑΤΑΙΩΝ**. The specimen described by Löbbecke²² is now in Berlin.

ANACTORIUM.

21. *Obv.*—Pegasus with pointed wing, slightly curled upwards, flying l.; no letter.

Rev.—Head of Athena r., wearing Corinthian helmet over neck-guard; to l., ivy leaf, to r., **ΑΝΑΚΤΟΡΙΩΝ**.

↓ 20 mm. Wt. 8.40 grm. [Pl. XXI. 6.]

22. *Obv.*—Pegasus with pointed wing, slightly curled upwards, flying l.; no letter. From the same die as the preceding.

Rev.—Head of Athena r., wearing Corinthian helmet over neck-guard; to l., astragalos.

→ 18 mm. Wt. 8.55 grm. [Pl. XXI. 7.]

The head of Athena is of a very high relief and of a broad technique. The style induced me to place the coin among the uncertain mints of Sicily, until I found out that its obverse was from the same die as the above coin of Anactorium, that bears the full ethnic **ΑΝΑΚΤΟΡΙΩΝ**. But examining the obverse of B.M. Cat., *Argos Amphiloichicum*, No. 6 (Pl. XXI. 8), we can ascertain that the obverses of Nos. 21, 22, and No. 8 on Pl. XXI, are all from the same die. Therefore we cannot decide if No. 22 is from the mint of Anactorium or of Argos.

This surprising fact that two coins with the ethnic inscribed at full length **ΑΝΑΚΤΟΡΙΩΝ** and **ΑΡΓΕΙΩΝ**

²¹ Mionnet, *Suppl.*, iii. 472, 128.

²² *Zeit. f. Num.*, xv, p. 40.

have the obverses from the same die, logically would lead us to conclude that they come from the same mint. But as the coins have the names of the two towns in full, we cannot doubt that they are really of Anactorium and Argos. The only hypothesis that we may find to explain the fact is that both towns used the same mint for a certain time.

This may have happened about the year 432 B.C., when the Amphilocheians, with the help of the Athenians and the Akarnanians, took back their town of Argos from the Ambrakiotes.³³

Before having her mint restored, Argos may have asked the allied town of Anactorium to coin money for her. This must have been for a very short time, as we know of no other coins of the two towns coming from the same dies.

Imhoof-Blumer³⁴ observed a similar fact on several Campanian coins with the facing Hera's head type, of Hyria, Nola, Frentanum, Freternum, Censennia, Sennernia, Serennia, Veseris, &c. The coins have different reverses and legends like ANIDY , ANIDV , ΞΕΞΞΕΡ , $\text{VNDNIE} \text{ ⚡}$, and have the obverses from the same die. He went so far as to state that all these coins may be of one and the same locality.

It is more likely that the towns of Hyria, Nola, Frentanum, &c., had their currency coined in the same mint for a certain time, perhaps in Nola, because they could not dispose of the necessary technical and artistic craftsmanship.³⁵

³³ Thucyd., iii. 68 (Imhoof-Blumer, *op. cit.*, p. 82).

³⁴ *Op. cit.*, p. 3.

³⁵ Cf. A. Sambon, *Les Monn. Ant. de l'Italie*, p. 307.

LEUCAS.

23. *Obv.*—Pegasus with pointed wing, flying l. ; no letter visible.

Rev.—Head of Athena l., wearing Corinthian helmet over neck-guard ; to l., olive-spray downwards ; to r., olive-spray upwards ; incuse square.

↓ 16 × 22 mm. Wt. 7.90 grm. [Pl. XXI. 9.]

I do not know any other specimen of this coin ; the general aspect, and a certain likeness to other coins of Leucas, prompt me to attribute it conjecturally to this mint.²⁶

24. *Obv.*—Pegasus with pointed wing, flying l. ; beneath, Λ.

Rev.—ΛΕΥΚΑΔΙΩΝ, head of Athena l., wearing Corinthian helmet over neck-guard ; to r., Π.

↓ 18 × 21 mm. Wt. 8.52 grm. [Pl. XXI. 10.]

This coin seems to be similar to B.M. Cat., No. 28,²⁷ not illustrated. From the style this coin should be placed to the end of the fifth century. It is a revival of B.M. Cat., Nos. 25 and 26,²⁷ showing the eye of the Goddess almost full face. These coins certainly belong to the transitional period.

25. *Obv.*—Pegasus with pointed wing, flying l. ; beneath, Λ.

Rev.—ΛΕΥ, head of Athena l., wearing Corinthian helmet over neck-guard ; olive-spray with three leaves and one olive to r.

↑ 22 mm. Wt. 8.52 grm. [Pl. XXI. 11.]

This is a remarkable coin of very good style ; two other specimens are known of this type. One in

²⁶ Babelon, *op. cit.*, Pl. CCLXXIII. t. 17.

²⁷ *Op. cit.*, p. 127, Pl. XXXIV. 16.

Berlin from Imhoof-Blumer,³⁸ and one in Paris.³⁹ Both are badly centred.

26. *Obv.*—Pegasus with pointed wing, flying l.; beneath, Λ. From the same die as 25.

Rev. ΛΕΥ, head of Athena l., wearing Corinthian helmet over neck-guard; ivy branch with three berries to r.

↓ 22 mm. Wt. 8.51 grm. [Pl. XXI. 12.]

The only other specimen of this coin, as far as I know, is the one in the Naples cabinet, published by Imhoof-Blumer.⁴⁰

27. *Obv.*—Pegasus with pointed wing, flying l.; beneath, Λ; in the field under the Pegasus an incuse profile of the Athena's head and her neck-guard.

Rev.—ΛΕΥ, head of Athena l., wearing Corinthian helmet over neck-guard; to r., lizard, upwards.

↑ 22 mm. Wt. 8.45 grm. [Pl. XXI. 13.]

Similar to B.M., No. 34,⁴¹ but the symbol on the B.M. specimen, being probably blurred, has been taken for a dolphin.

The obverse of this coin looks at first sight as if it were a brockage. One can distinctly see the profile of the Goddess's head, but incuse beneath the Pegasus.

All the coins I could trace with the obverse from the same die show the same incuse profile of Athena under the Pegasus, and exactly in the same place.

No. 1935, de Luynes Collection,⁴² one specimen in the Hoyt Miller Collection, and two more in mine, all show the same peculiarity.

³⁸ Imhoof-Blumer, *op. cit.*, p. 121, No. 17.

³⁹ Babelon, *op. cit.*, p. 67, No. 122, Pl. CCLXXV, f. 3.

⁴⁰ *Op. cit.*, p. 132, No. 17 a.

⁴¹ *Op. cit.*, p. 128, Pl. XXXV. 2.

⁴² J. Babelon, *Cat. C. de Luynes*, ii, p. 74, Pl. LXXIII, N. 1935.

The only explanation is that they have used an old hub of the Pallas type and made an ordinary Pegasos die of it. This must have been done by hubbing the Pegasos type on the old Pallas hub, because if they had engraved directly they would have certainly cleared away the remains of the Pallas in relief.

The above explanation tallies with the one given by G. C. Brooke, of a Tarentine nomos in the Vlasto Collection (cf. Lucerne sale V, 1923, Pl. VII, 261-262), presenting part of the reverse type incuse, under the horseman of the obverse.

My No. 27 proves that the Pegasi dies were hubbed, and it is interesting to note that the hubs were not of a rough sketchy design, and that the mint officials at Leucas do not seem to have cared much what they used as raw material for a die.

28. *Obv.*—Pegasos with pointed wing, flying r.; beneath, ΛΕΥ.

Rev.—Head of Athena r., wearing over neck-guard Corinthian helmet; to l., A, vine branch with grapes over amphora.

↑ 20 mm. Wt. 8.58 grm. [Pl. XXI. 14.]

Similar to B.M., No. 90,⁴³ and Babelon, No. 136.⁴⁴

Imhoof-Blumer⁴⁵ published a similar coin from the Museum of Vienna, but with MYT under the Pegasos, and conjectures that these letters may be the beginning of a magistrate's name. This would be a very exceptional place for magistrates' initials, and I suspect that the reading was not correct.

My coin has the obverse from the same die as the

⁴³ Babelon, *op. cit.*, p. 71, Pl. CCLXXV, f. 15.

⁴⁴ *Op. cit.*, p. 132.

⁴⁵ *Op. cit.*, p. 124, n. 29, Pl. III. 14.

specimen of Vienna, but although the **Λ** and the **E** are blurred by a flaw, one can still distinctly read **ΛEY**. The explanation of Imhoof-Blumer's reading is that the **Λ** and **E**, being linked together by the flaw, have the appearance of an **M**, and a flaw under the fore-leg of the Pegasos, resembling a **T**, made him read **MYT**.

Although my coin shows flaws that are not on the example of Vienna, the **T**-like flaw is not visible, but in its place there is an unevenness in the field that suggests the hypothesis that the die has been repaired and the misleading **T**-like flaw erased.

29. *Obv.*—Pegasos with pointed wing, flying l. ; no letter.

Rev.—Head of Athena r., wearing Corinthian helmet over neck-guard ; to l., **E**, fish-hook, and **Λ**.

19 mm. Wt. 8.42 grm. [Pl. XXI, 15.]

This coin is similar to the coin of Echinus (?) of the B.M. The only difference is that there is **Λ** between the fish-hook and the neck of the Goddess.

Another specimen of my collection, corresponding to Leucas, No. 42, of Imhoof-Blumer,⁴⁶ has the obverse from the same die. The coin is therefore certainly of Leucas, and the letter **E**, taken for the civic initial of Echinus, has to be considered as a magistrate's initial.

Imhoof-Blumer⁴⁷ was the first to attribute the coin to Echinus, but he expressed the doubt that it may only be of Leucas.

O. RAVEL.

⁴⁶ *Op. cit.*, p. 128.

⁴⁷ *Op. cit.*, p. 100.

XIV.

A NOTE ON SOME UNPUBLISHED ROMAN BRONZE COINS.

[SEE PLATE XXII.]

IN bringing to the notice of the Society some unpublished Roman brass and copper coins in my collection, I must first express my regret that the list contains very few specimens of new types, but in the interest of numismatics I feel that a record of even minor varieties ought not to be omitted, and I trust that this brief paper may prove of some interest, if not value, to students of the Roman series.

I use the term "unpublished" to denote coins not in Cohen, but at the same time I have excepted any specimens which have now been described in the comprehensive work on Roman coins by my friend Mr. Mattingly, in course of publication by the British Museum, of which the first volume (Augustus to Vitellius) has already been published.

A description of the coins, with such notes as may be necessary, follows.

AUGUSTUS.

Dupondius restored by Titus.

1. *Obv.*—Radiated head of Augustus to l., DIVVS·AVGVSTVS·PATER.

Rev.—IMP·T·VESP·AVG·REST, in field S·C. Victory advancing to l. carrying in r. hand shield inscribed S·P·Q·R and resting left hand against side.

This specimen corresponds with its prototype in having the letters **S·P·Q·R** in one line across the shield; all the specimens hitherto recorded read **S·P·Q·R** in two lines.

TIBERIUS.

Asses restored by Titus.

2. *Obv.*—**TI·CAESAR·DIVI·AVG·F·AVGVST·IMP·VIII.** Bare head of Tiberius to l.

Rev.—**IMP·T·CAES·DIVI·VESP·F·AVG·RESTI
TVIT.** Large **S·C** in field.

3. *Obv.*—As No. 1.

Rev.—**IMP·T·CAES·DIVI·VESP·F·AVG P·M** round edge; **TR·P·P·P·COS·VIII·RESTITV** in an inner circle; **S·C** in field.

Varieties of Mattingly,¹ A a and A b.

In passing I might offer one suggestion on the still undecided question as to the issue of these pieces. I think it is quite probable that these "restitutions" were coined from the actual metal of the coins of Augustus, Tiberius, &c, withdrawn from circulation by the Roman mint, in which case such pieces were in a very real sense "restitutions". If such were the case it might be a reason why there are comparatively few types, as it would be more appropriate to reissue coins bearing the old types if struck from the original metal.

4. *Obv.*—**TI·CAESA· (sic) DIVI·AVGVSTI·F·AVGVSTVS.** Laureate head to r.

Rev.—**PONT·MAXIM·COS III·IMP·VII·TR·POT·XXI.** Winged caduceus between two cornucopiae.

The example given by Cohen and Mattingly reads **TR·POT·XXII.**

¹ H. Mattingly, "The Restored Coins of Titus, Domitian and Nerva". *Numismatic Chronicle*, 1920.

5. *Obv.*—**TI·CAESAR·DIVI·AVG·F·AVGVSTVS·IMP·VII.** Bare head to left.
Rev.—**PONTIF·MAXIM·TRIBVN·POTEST·XVII·S·C.** Livia, veiled, seated to right, holding a patera and a sceptre.
6. *Obv.*—**TI·CAESAR·DIVI·AVG·F·AVGVSTVS·IMP·VIII.** Bare head to left.
Rev.—**PONTIF·MAXIM·TRIBVN·POTEST·XXIII,**
 in centre large **S·C.**
 Varieties reading **AVGVSTVS** instead of **AVGVST.**

NERO.

In view of the exhaustive researches into the coinage of Nero which have been made by the Rev. E. A. Sydenham, it is interesting to find new varieties. The *as* in orichalcum, No. 7, I acquired comparatively recently; it came from a collection at Naples.

7. *Obv.*—**NERO·CLAVDIVS·CAESAR·AVG·GERMA·NI.** Laureate head to r.
Rev.—**PONTIF·MAX·TR·POT·IMP·P·P·S·C.** Nero in citharoedic attire standing to r. playing upon a lyre; in exergue \bar{I} .

As.

8. *Obv.*—**NERO·CLAVD·CAESAR·AVG·GER·P·M·TR·P·IMP·P.** Bare head to r.; below, a globe.
Rev.—**GENIO·AVGVSTI·S·C.** Genius standing to l. sacrificing at an altar.
 Variety of Cohen, 100.

GALBA.

Sestertius.

9. *Obv.*—**SER·GALBA·IMP·CAES·AVG.** Laureate head to left.

Rev.—**ROMA** (in ex.) **S·C.** Roma seated to left upon a cuirass, holding in her right hand a spear, her left arm resting on a shield, which stands on a helmet.

This coin is struck on a flat and somewhat thin flan, and its style and fabric rather suggests the work of a provincial mint. The obverse appears to be identical with the specimen illustrated on Plate LVI, No. 9, in vol. i of the British Museum Catalogue.

VITELLIUS.

As.

10. *Obv.*—**A·VITELLIVS·GERM·IMP·AVG·P·M·TR·P**
Laureate head to r.

Rev.—**PROVIDENT·S·C.** An altar.
Variety of Cohen 74.

VESPASIAN.

Sestertius.

11. *Obv.*—**IMP·CAES·VESPAS·AVG·P·M·TR·P·P·P**
COS·III. Laureate head to r.

Rev.—**AEQVITAS·AVGVSTI·S·C.** Equity standing to l. holding a pair of scales in her r. hand and a cornucopiae in her l.

The reverse type of Equity is common on second brass, but has not previously been known on a sestertius. It differs from the usual type of this reverse in the fact that Equity holds a cornucopiae instead of a sceptre in her left hand.

Sestertius [Pl. XXII. 1.].

12. *Obv.*—**DIVVS·AVGVSTVS·VESPASIANVS.**
Laureate head to r.

Rev.—**S·C.** Mars, carrying spear and trophy, marching to r.

Dupondius [Pl. XXII. 2.]

13. *Obv.*—**DIVVS • AVGVSTVS • VESPASIANVS.**
Radiate head to r.

Rev.—**PAX • AVGVST S • C.** Peace standing to l. leaning against a column, holding a caduceus in her r. hand and an olive branch in her l.

The bronze coins of Vespasian, struck after his death and bearing his portrait, are in my experience decidedly rare. During the last twenty-five years I have not seen or heard of half a dozen specimens, and, so far as my recollection serves me, there have been no specimens in some of the most important collections of Roman coins which have been offered for sale both in England and on the Continent. It is somewhat remarkable that none of the coins of this particular series bear any special reverse, such as would have been appropriate to the obverse. All the known varieties simply repeat some of the commonest and ordinary reverse types of Vespasian.

As.

14. *Obv.*—**IMP • CAESAR • VESPASIAN • AVGVSTVS • COS • III.**
Laureate head to left.

Rev.—**VICTORIA • NAVALIS • S • C.** Victory holding a wreath and a palm branch standing to r. upon a prow of a vessel.

Variety of Cohen 634.

Titus.

Dupondius.

15. *Obv.*—**T • CAESAR • VESPASIANVS • TR • P • COS • VII,** reading from r. to l. Radiate head to l.

Rev.—**CERES • AVGVST S • C.** Ceres standing to l., holding two ears of wheat in her right hand and a long torch in her left.

As.

16. *Obv.*—**T·CAESAR·VESPASIANVS·TR·P·COS·VI.**
Laureate head to l.

Rev.—**VICTORIA·AVGVST·S·C.** Victory standing to r. on prow, holding a palm branch and a garland.

Variety of Cohen 364, head to r.

DOMITIAN.

Sestertius.

17. *Obv.*—**IMP·CAES·DOMIT·AVG·GERM·COS·XII·CENS·PER·P·P.** Laureate bust with aegis to r.

Rev.—**GERMANIA·CAPTA·S·C.** A trophy of German arms, to r. a German standing with hands bound behind him, at his feet a shield, and on the left a woman seated in an attitude of distress.

Cohen gives two varieties of this coin, **COS·XI** and **COS·XIII** respectively. My specimen supplies the intermediate consulate.

As.

18. *Obv.*—**IMP·CAES·DOMIT·AVG·GERM·COS·X.**
Laureate bust with aegis to r.

Rev.—**MONETA·AVGVST·S·C.** Moneta standing to l., holding scales and a cornucopiae.

Variety of Cohen 324, &c.

Sestertius [Pl. XXII. 3].

19. *Obv.*—**IMP·CAES·DOMIT·AVG·GERM·COS·XIII·CENS·PER·P·P.** Laureate bust to r.

Rev.—**IOVIS·VIRTVTI·S·C.** Jupiter seated to l., holding in his r. hand a Victory and a sceptre in his l.

Although this coin is given by Cohen (No. 317) it is only by reference to Baron Marchant's letters, and it does not appear that he ever saw a specimen. In

view of its rarity I thought it would be of sufficient interest to include here a description of my coin.

The reverse type is identical with the well-known and very common sestertius of Domitian bearing the legend **IOVI·VICTORI**. The legend **IOVIS·VIRTVTI** is remarkable, and, so far as I am aware, does not appear on any other Roman coin, but it is really exactly parallel to the common "Virtuti Augusti"; "Virtus" is here made a special attribute of Jupiter.

As.

20. *Obv.*—**IMP·CAES·DIVI·VESP·F·DOMITIAN·AVG·GER·COS·X**. Laureate bust with aegis to r.

Rev.—An altar, **SALVTI·** to l. (up) and **AVGVST** to right (down) of altar. **S·C** in ex.

20^a. Another variety with laureate bust, without aegis, to l.

Varieties of Cohen 414.

As.

21. *Obv.*—**CAESAR·AVG·F·DOMITIAN·COS·II**. Laureate head to r.

Rev.—**S·C**. Domitian in a quadriga to r., holding a sceptre.

This coin, which is a variety of Cohen 476, commemorates the triumph after the conquest of Judea.

Sestertius.

22. *Obv.*—**IMP·CAES·DOMIT·AVG·GERM·COS·XI CENS·PER·PP**. Laureate bust with aegis to r.

Rev.—**S·C**. Domitian standing to r., clasping hands with an officer accompanied by two soldiers standing to l., who hold a standard and a spear respectively; between them, a flaming altar.

Variety of Cohen 497.

TRAJAN.

Sestertius.

23. *Obv.*—IMP·CAES·NERVAE·TRAIANO·AVG·GER·P·M·TR·P·COS·V·P·P. Laureate bust to l.
Rev.—S·P·Q·R·OPTIMO·PRINCIPI·S·C. The River god Tiber to l., grasping by the throat a figure, personifying Dacia, seated on the ground.

This coin bears a fine and somewhat unusual portrait of Trajan; the features are rather older and the expression sterner than is usual on coins of the Fifth Consulate.

Variety of Cohen 525.

As [Pl. XXII. 4].

24. *Obv.*—IMP·CAES·NER·TRAIANO·OPTIMO·AVG·GER·DAC·PARTH·P·M·TR·P·COS·VI·P·P. Laureate and draped bust to r.
Rev.—SENATVS·POPVLVS·QVE·ROMANVS·S·C. Two trophies. A new type, which evidently refers to the Eastern campaigns.

As.

25. *Obv.*—IMP·CAES·NERVAE·TRAIANO·AVG·GER·P·M·TR·P·COS·V·P·P. Laureate, draped, and cuirassed bust to l.
Rev.—S·P·Q·R·OPTIMO·PRINCIPI·S·C. Victory standing to l., holding a wreath and a palm branch.

Variety of Cohen 438.

HADRIAN.

Sestertius.

26. *Obv.*—HADRIANVS·AVGVSTVS. Laureate head to l.

Rev.—**COS·III·S·C.** Roma seated to l. upon a cuirass, and holding a small figure of Victory and a cornucopiae.

Variety of Cohen 344.

As.

27. *Obv.*—**HADRIANVS·AVG·COS·III·P·P.** Bare head with draped bust to r.

Rev.—**ADVENTVS·AVG·S·C.** Hadrian standing to r., holding a roll in his l. hand and giving his r. to Roma, who stands holding a spear.

Variety of Cohen 83.

As.

28. *Obv.*—Similar to No. 31.

Rev.—**AEGYPTOS·S·C.** Egypt reclining to l., holding the sistrum, her l. arm resting upon the canistrum; at her feet an ibis upon a cippus.

Similar to the Sestertius, Cohen 110.

As.

29. *Obv.*—Similar to No. 30.

Rev.—**COS·III·P·P·IVSTITIA·AVG·S·C.** Justice seated to l., holding a patera and a sceptre.

Variety of Cohen 521.

As.

30. *Obv.*—**IMP·CAESAR·TRAIAN·HADRIANVS·AVG.** Laureate and draped bust to r.

Rev.—The same as the obverse.

Variety of Cohen, 844.

Dupondius.

31. *Obv.*—**IMP·CAESAR·TRAIAN·HADRIANVS·AVG·P·M·TR·P·COS·III.** Radiate and draped bust to r.

Rev.—**MONETA·AVGVSTI·S·C.** Moneta standing to l., holding scales and cornucopiae.

Variety of Cohen 977.

ANTONINUS PIUS.

As.

32. *Obv.*—ANTONINVS • AVG • PIVS • P • P • TR • P • COS • III. Bare head to r.

Rev.—ANNONA • AVG S • C. Annona standing to r., holding two ears of wheat and a cornucopiae; behind her, modius; in front, prow of galley.

Variety of Cohen 34.

As.

33. *Obv.*—IMP • CAES • T • AEL • HADR • ANTONINVS • AVG • PIVS • P • P. Laureate and cuirassed bust to r.

Rev.—ANNONA • AVG (in ex.) TR • POT • XIII • COS • III • S • C. Annona seated to l., holding two ears of wheat and a cornucopiae; before her, modius.

A fine coin, the obverse being in medallion style. Variety of Cohen 47.

As.

34. *Obv.*—ANTONINVS • AVG • PIVS • P • P • TR • P • XVIII. Laureate head to r.

Rev.—FELICITAS • COS • III • S • C. Felicity standing to l., holding in her r. hand a long caduceus and in her l. two ears of wheat.

Dupondius.

35. *Obv.*—ANTONINVS • AVG • PIVS • P • P • TR • P • COS III. Radiate head to r.

Rev.—FELICITAS • AVG • S • C. Felicity standing to l., holding in her r. hand ears of wheat and in her l. a long caduceus. The object held in the r. hand is not very clear, but most probably is ears of wheat.

Variety of Cohen 367.

As.

36. *Obv.*—ANTONINVS • AVG • PIVS • P • P • TR • P • COS • III. Laureate head to r.

Rev.—SALVS • AVG • S • C. Salus standing to l., holding a sceptre and feeding a serpent rising from an altar.

Cp. Cohen 715 for a variant *rev.* of the same period.

FAUSTINA SENIOR.

Dupondius.

37. *Obv.*—FAVSTINA • AVG • ANTONINI • AVG • P • II • P • P. Draped bust to r.

Rev.—VESTA • S • C. Vesta standing to l., holding the Palladium and a sceptre.

Cohen gives this reverse type in silver only, No. 291.

MARCUS AURELIUS.

Sestertius.

38. *Obv.*—M • AVREL • ANTONINVS • AVG • ARMENIA CVS • P • M. Laureate head and cuirassed bust to r.

Rev.—TR • POT • XIX • IMP • II • COS • III S • C. Mars standing to r., holding a spear, and his l. hand resting on a shield.

Variety of Cohen 796.

Sestertius.

39. *Obv.*—M • AVREL • ANTONINVS • AVG • ARMENIA CVS • P • M. Laureate bust to r.

Rev.—TR • POT • XIX • IMP • III • COS • III • S • C. Providence standing to l., holding a wand and a sceptre; at her feet, a globe.

Variety of Cohen 801.

Dupondius.

40.—*Obv.*—**M·ANTONINVS·AVG·GERM·SARM·TR·P·XXI.** Radiate head to r.

Rev.—**IMP·VII·COS·III·P·P·S·C.** In exer. **DE·GERM.** A trophy with two captives, male and female, seated on either side at foot, the male captive to r. being bound.

The number of the tribunitian power on this coin is evidently an error on the part of the engraver. **TR·P·XXI** = A.D. 167 whereas the seventh Imperatorship was not assumed before A.D. 174. In the year 167 the Emperor departed from Rome for the seat of war in Germany, but no victories are recorded in that year. A coin of this type, but reading **TR·P·XXX** and **IMP·VIII**, is referred to by the Rev. C. H. Dodd in his article entitled "Chronology of the Danubian Wars of the Emperor Marcus Antoninus" (*Num. Chron.*, vol. xiii, 1913).

Dupondius.

41. *Obv.*—**M·ANTONINVS·AVG·TR·P·XXVII.** Radiate head to r.

Rev.—**RELIG·AVG·IMP·VI·COS·III·S·C.** Mercury standing to l., holding in his r. hand a patera and carrying a caduceus on his left arm.

Cohen gives this *rev.* type in silver, No. 530.

FAUSTINA JNR.

As.

42. *Obv.*—**FAVSTINA·AVGVSTA.** Draped bust to r.

Rev.—**VESTA·S·C.** Vesta standing to l., holding in her r. hand the simpulum and carrying a trophy in her left.

This is unusual in the fact that the goddess is carrying a trophy instead of the Palladium or a sceptre.

I suggest that this variation has reference to the Roman victories in Germany or Sarmatia. Cp. Cohen 285.

LUCIUS VERUS.

Dupondius [Pl. XXII. 5.].

43. *Obv.*—**L • VERVS • ARM • PARTH • MAX.** Radiate head to r.
Rev.—**TR • POT • VII • IMP • III • COS • II • S • C.** Parthia seated to r. in front of trophy, her hands bound behind her.

This is a variety which was apparently unknown to the Rev. C. H. Dodd at the time he wrote his article on the Chronology of the Eastern Campaigns of Lucius Verus (*Num. Chron.*, 1911). The **IMP • III** is curious, the date of the coin **TR • P • VII** being equivalent to A. D. 167, in which year the emperor had assumed the fourth Imperatorship. Cp. Cohen 199 ff.

COMMODUS.

As.

44. *Obv.*—**M • ANTONINVS • COMMODVS • AVG.** Laureate head to r.
Rev.—The same as obverse.

Cohen gives seven varieties of these coins but with different legends from above (see Nos. 41, 223, 345, 276, 277, 361, and 362).

JULIA MAMAEA.

As.

45. *Obv.*—**IVLIA • MAMAEA • AVGVSTA.** Diademed bust to l.
Rev.—**IVNO • CONSERVATRIX • S • C.** Juno standing to l., holding in her r. hand a patera and in her l. a long sceptre; at her feet a peacock.
 Variety of Cohen 42.

PERTINAX.

As.

46. *Obv.*—IMP·CAES·P·HEL·V·PERT·AVG. Laureate head to r.
Rev.—OPI·DIVIN·TR·P·COS·II·S·C. Ops seated to l., holding two ears of wheat.
 Variety of Cohen 35.

NERVA.

Sestertius.

47. *Obv.*—IMP·NERVA·CAES·AVG·P·M·TR·P·COS·II·DESIGN·III·P·P. Laureate head to r.
Rev.—ROMA·RENASCENS·S·C. Roma seated to l., holding in her right hand a Victory and supporting a spear in her left.
 Variety of Cohen 130.

I wish to tender my best thanks to Mr. Mattingly for having kindly read through the foregoing and for the suggestions he has made in reference thereto.

LEOPOLD G. P. MESSENGER.

XV.

SOME RARE OR UNPUBLISHED ROMAN AND
BYZANTINE COINS.

[SEE PLATE XXII.]

THE nine coins described in this paper are in my collection, with the exception of the 20-nummia piece of Anastasius I, which is now at the British Museum. The remainder are not represented there.

POSTUMUS, EMPEROR IN GAUL, A.D. 258-67.

1. *Obv.*—IMP C POSTVMVS PIVS F AVG. Bust, bearded, laureate and draped to r.

Rev.—VICTORIA AVG. Victory advancing to l., holding wreath and palm branch; before her a captive seated on the ground, his arms tied behind his back. In exergue S C.

Æ. Size, 29.5 mm. Wt. 355 gr. 23.00 gm.
[PL. XXII. 6.]

A similar coin, but without S C, is described by Cohen (No. 387), and is there valued at only six francs. There is a specimen in the British Museum. However, it appears that all sestertii of this Emperor with the inscription reading PIVS F AVG are rare. The weight is very good and bears witness to this Emperor's early efforts to maintain the standard of his coinage.

DELMATIUS. CAESAR A.D. 335-37.

2. *Obv.*—DELMATIVS NOB CAES. Bust, beardless, laureate and draped to r.

Rev.—**GLORIA EXERCITVS.** Two soldiers standing, each with spear and leaning on his shield; between them two standards. Between standards (?) a spear-head, underneath this •. In exergue, **P CONSG.**

Æ. Size, 18.5 mm. Wt. 33 gr. 2.14 gm.
[Pl. XXII. 7.]

This coin is of an unusually large diameter and the obverse inscription appears to be unpublished. The object between the standards has been described as a spear-head; but, on this coin at any rate, it certainly does not look like one. It is far too broad, has a rounded top and two very marked projections on the right hand side, and one, not so clearly shown, on the left.

ANASTASIUS I. EMPEROR A. D. 491-518.

3. *Obv.*—**D N ANASTASIVS P P AVG.** Bust, beardless, to r. He wears diadem, cuirass, and paludamentum.

Rev.—**K** (on l.); long cross.

Æ. Size, 19 mm. Wt. 53 gr. 3.43 gm.

The small module 20-nummia pieces of this Emperor are uncommon, especially those with no letters (besides the **K**), or stars on the reverse. The only other coin of this type in the British Museum Collection (No. 49), reads **AV** for **AVG.**

JUSTINIANUS I. EMPEROR A. D. 527-65.

4. *Obv.*—**D N IVSTINIANVS P AVG.** Bust, beardless, facing. He wears helmet with plume and armour; in his r. hand he holds a globus cruciger, his l. (not shown) supports a shield with a horseman device.

Rev.—* I *

Æ. Size, 18 mm. Wt. 73 gr. 4.72 grm.
[Pl. XXII. 8.]

Sabatier, in his *Description Générale des Monnaies Byzantines* (No. 109), gives an example of this type with the obverse inscription ending **PPA**. The illustration given by Count Jean Tolstói in his *Byzantine Coinage* (No. 449), shows a coin of this series, but it is of quite a different style and fabric. The coin I have was probably struck at Constantinople.

5. *Obv.*—**DN IVSTINIANI P P C**. Bust, beardless, to r. He wears diadem, cuirass, and paludamentum.

Rev.—**€** † within reel border.

Æ. Size, 14.5 mm. Wt. 32 gr. 2.07 grm.
[Pl. XXII. 9.]

The usual obverse inscription of this type is **DN IVSTINIANVS P P AVG** (compare Tolstói Nos. 471 and 472).

PHOCAS. EMPEROR A. D. 602-10.

6. *Obv.*—**DMFO[CAS PERP AVG (?)** Bust, bearded, facing. He wears crown with cross and consular robes. In his r. hand he holds a mappa, in his l. a cross.

[A. D. 603-04].

Rev.—**ANNO
XXXXII
CONB**

Æ. Size, 28 mm. Wt. 170 gr. 11.02 grm.

Similar coins are given by Tolstói with mint-marks **CONA** (No. 49), and **CONΔ** (No. 50). The above variety appears to be unpublished.

7. *Obv.*—**ΘΜFOCA** Bust, &c., as on No. 6.

Rev.—**XXII** [A. D. 603-04.]
ΝΙΚΟΑ.

Æ. Size, 24 mm. Wt. 89 gr. 5.77 grm.

The above also appears to be unpublished. Tolstoi (No. 98) has mint-mark **NIKO**.

CONSTANS II. EMPEROR A. D. 641-68.

8. *Obv.*—**NCOTVINIP**. Busts of Constans II (on l.) and of his son Constantine (on r.) facing; both wearing crown with cross. The bust of Constans is much larger than that of his son. The former wears long beard and moustache and holds a globus cruciger in his r. hand. Between the busts, a cross.

Rev.—**VICTO AVG** [? C]. Heraclius, junior (on l.), Tiberius (on r.), both standing, facing. Each wears long robes and crown with cross and holds in his r. hand a globus cruciger. Between them
 †. In exergue **CONOB**

Α. Size, 16.5 mm. Wt. 67.2 gr. 4.3539 grm.
 [Pl. XXII. 10.]

This coin was exhibited at the meeting of the Royal Numismatic Society, held on 18 Jan. 1923, and was, by an error, then incorrectly described as a semissis. It had been also so described (No. 83) in the sale catalogue of the Byzantine coins, "The property of a Foreign Prince", sold in London on 8 Dec., 1922. It has, it is true, the module of a semissis, but its weight proves that it is a solidus. Although not a semissis, it still appears to be unpublished elsewhere.

?ALEXIOUS I. EMPEROR A. D. 1081-1118.

9. *Obv.*—Traces of inscription. The Emperor, bearded, standing, facing. He holds in his r. hand a labarum, in his l. a globus cruciger. He wears crown, long robe, and mantle. Border of dots.

Rev.—Christ, bearded, seated on throne with back. He holds book of Gospels and wears nimbus, tunic, and mantle. Double border of dots.

Æ. Size, 18 mm. Wt. 85 gr. 5.50 gm.

[Pl. XXII. 11.]

The attribution to Alexius I is doubtful. The coin is very heavy and is about two millimetres thick. It is different from anything in the British Museum Collection.

G. C. HAINES.

XVI.

FORGERY OF ENGLISH COPPER MONEY IN
THE EIGHTEENTH CENTURY.

THE forged halfpence and farthings fabricated during the eighteenth century fall into two distinct divisions. There are those which closely imitated the types and legends of the regal money, and those which carefully evaded an exact imitation. The object of the latter was obviously the avoidance of prosecution, in which probably they were not ultimately successful, and a passage in the *Gentleman's Magazine* for 1752¹ appears to give the date when these pieces began to appear.² It is there stated that, as a result of action on the part of the Solicitor to the Mint in 1744, the forged halfpennies and farthings in the form of direct copies of the genuine copper money ceased, but that in the beginning of the spring of 1751 "these authors"³ published their works in a new edition, that is no longer cast in sand,⁴ but stamped in a press with a variety of impressions, all distinguishable from one another and from the genuine halfpence". It is clear, therefore, that the coppers

¹ xxii, p. 500. See also here below.

² I find that Colquhoun, in his *Treatise on the Police of the Metropolis*, 1800, p. 197, has anticipated me in naming them 'evasive' halfpence.

³ i. e. the forgers.

⁴ Some, however, certainly were struck: witness, e.g., a halfpenny and three farthings in the possession of Mr. L. A. Lawrence.

described by Atkins⁵ under the title of "Imitation of the Regal Coinage", which are not facsimiles, but travesties, of the legal money,⁶ fall into the second of the above divisions and would be more accurately termed "Evasions of the types of the Regal Coinage". These dishonest pieces, miserable productions though nearly all of them are from the point of view of both the artist and the craftsman, nevertheless possess, like the facsimile forgeries, an historical interest of their own, if only because their mere existence reveals that inadequate provision of small change by the Government which had been a matter of public complaint throughout practically the whole of our history.

The counterfeiting of the gold and silver coin of the realm was considered by the Common Law to be treason, and continued throughout the eighteenth century to be punishable by death,⁷ but the counterfeiting of the copper coin, a form of money which only came into being in the reign of Charles II, had been regarded merely as a misdemeanour, involving slight penalties. Owing, however, to the growth of this offence, it was enacted by the Statute of 15 George II (1742), chap. 28,⁸ that "if any person counterfeit brass or copper money, commonly called a Halfpenny or a Farthing, such person, and his or her aiders, abettors, and procurers, shall suffer two years' imprisonment and find sureties for good behaviour for

⁵ *Tokens of the Eighteenth Century*, 1892, pp. 385-95.

⁶ A few, indicated below, are light forgeries of the token-money. Nos. 225-7, however, appear to be direct imitations of the regal money.

⁷ The death penalty for this offence was not abolished till 1832 (2 & 3 Will. IV, chap. 34).

⁸ *Statutes at Large*, vol. vi, p. 464.

two years more". Informers were to be paid £10 for each conviction, and accomplices who turned king's evidence and thus secured two or more convictions were to receive pardon. According to Colquhoun⁹ the law was not held to apply to the issuing of pieces the stamp of which varied in any respect from that of the current coin of the realm, "so as not to be of its exact similitude". This is not stated in the above Statute, but may have been the accepted practice, in order to protect from prosecution card-counters and the like, which often were of monetary design. Doubtless on this were based the hopes of the "evaders". The practice of imitating the copper money nevertheless continued, and on July 12, 1751, a proclamation was issued to enforce the Statute of 1742.¹⁰ In 1755, however, it became a subject of debate whether the regal copper coins could strictly be regarded as current money at all and consequently entitled to protection against forgery.¹¹ Joseph Harris, in his *Essay on Money and Coins*,¹² wrote, "Copper coins with us are properly not money, but a kind of tokens passing by way of exchange instead of parts of the smallest pieces of silver coin, and, as such, very useful in small home traffic". Again, later,¹³ he says: "A silver penny is too small for common use, and yet pence,¹⁴ and their halves, and quarters, enter daily into accounts. To

⁹ *Op. cit.*, 1796, p. 136; 1800, p. 203.

¹⁰ Snelling, *View of the Copper Coinage of England*, 1766, p. 44.

¹¹ *Ibid.*, p. 45.

¹² 1757, p. 396, note. Reprinted by the Political Economy Club in 1856. ¹³ p. 389.

¹⁴ These as money of account only, for no copper penny was struck till forty years later. The Maundy pennies were too few to be considered.

supply the want of very small silver coins, a kind of tokens or substitutes have been instituted; these are now with us all made of copper, and of two species only, called *halfpence* and *farthings*; and these are a legal tender in all sums below sixpence, which is now our smallest current silver coin. The use of copper coins should be strictly confined within the above limit; and therein they are very convenient. But these base coins should never be thrust upon the public in too great abundance; or be made to pass for more than the value of the copper and the necessary expense of workmanship; otherwise they will be counterfeited, notwithstanding any laws to the contrary. And to lessen the call for copper coins, it were to be wished that we had in common currency either silver threepence or silver groats, and twopence".

One reason for the inadequate protection accorded to the genuine copper money perhaps was that the governing classes and the well-to-do generally would be much less affected than the poor by the currency of bad coppers, whereas base gold and silver coins would touch them nearly. Payment of wages was frequently made in the false copper coin, which was liable to be refused or discounted by shop-keepers. This, of course, as Colquhoun points out,¹⁵ was equivalent to raising prices; nor could the vendor be blamed, for he had to protect himself. Thus persons, otherwise honest, were reduced to the necessity of uttering bad money by passing on such of it as they received. Boulton,¹⁶ in

¹⁵ *Op. cit.*, edition of 1800, p. 186.

¹⁶ Smiles, *Lives of Boulton and Watts*, 1865, pp. 388, 391, note. See, too, *Gentleman's Magazine*, 1752, p. 500.

a letter of April 14, 1789, to Lord Hawkesbury,¹⁷ writes: "The evil is daily increasing, as the spurious money is carried into circulation by the lowest class of manufacturers, who pay with it the principal part of the wages of the poor people they employ. They purchase from the subterraneous coiners 36 shillings' worth of coppers (in nominal value) for 20 shillings, and pay it in wages as full value. The trade is carried on to so great an extent that at a public meeting at Stockport in Cheshire, in January last, the magistrates and inhabitants came to a resolution to take no other halfpence in future than those of the Anglesey Company,¹⁸ and this resolution they have published in the newspapers."

To return, in 1771, according to the Statute of 11 George III, chap. 40,¹⁹ it appears that the coining of false copper money was, despite that of 1742 quoted above, still punished only as a misdemeanour, and, as the practice had greatly increased, it was declared that the counterfeiting of halfpence and farthings should be adjudged a felony. This applied also to buyers or sellers, utterers or receivers, of such pieces. Still there seems to have been much laxity in the application of the penalties, there being a tendency to regard the coining of false copper money as a necessary evil, and Colquhoun²⁰ states that this Statute of 1771 "has not been at all effectual". Under cover of such indifference the "Tower Halfpence and

¹⁷ Then President of the Board of Trade; afterwards Earl of Liverpool, cited below.

¹⁸ That is, their well-known tokens, also an illegal issue, but of full weight and value.

¹⁹ *Statutes at Large*, vol. 11, p. 231.

²⁰ *Op. cit.*, edition of 1800, p. 193.

Farthings", as the legal copper coins were termed,²¹ being of full weight, were steadily melted down by the counterfeiters to provide metal for their lighter issues,²² and in proportion as the former went to the crucible the more their competition was reduced. The diminution in the mint coinage in circulation was evident, says Colquhoun,²³ "to every common observer". In the *Monthly Review* for Sept. 1771,²⁴ we read, "The copper coin is in as bad a state as that of the silver, though there has been a new coinage,²⁵ and twenty tons is already delivered to the public, and yet we see but few of them, owing to their being destroyed by the makers of counterfeit halfpence, who have but little prospect of putting off theirs while there is plenty of good coin."

Complaints and reports were published in the *Gentleman's Magazine* concerning "counterfeit halfpence", a term including the much less numerous farthings, and we may in all probability conclude that, in the general exasperation, the precautions of the "evaders" failed to protect them, and that in practice no distinction was made in the Courts of Justice between the facsimiles and the evasions, both being lumped together for equal punishment. The following extracts, dating subsequently to the above-mentioned activities of the Solicitor to the Mint, and beginning about the time of the first appearance of the evasions, may serve as examples:

*April 20, 1751.*²⁶ Three men and three women were

²¹ Lord Liverpool, *Treatise on the Coins of the Realm*, 1805, p. 192.

²² Cp. Ruding, *Annals of the Coinage*, 1840, iii, p. 83.

²³ *Op. cit.*, edition of 1800, p. 16.

²⁴ Vol. xlv.

²⁵ The "Armoured Bust" issue of 1770.

²⁶ *Gentleman's Magazine*, xxi, p. 186.

convicted at Newgate of coining halfpence, and received two years' imprisonment.

*July 12, 1751.*²⁷ Proclamation was made that the laws²⁸ would be enforced against counterfeiters of halfpence or farthings, or utterers of the same, knowing them to be counterfeits: the penalty being two years' imprisonment.

*Aug. 31, 1751.*²⁹ A man and his servant were convicted at Durham on the third of that month of uttering counterfeit halfpence to the amount of £9 18s. They were fined 20s. each and received six months' imprisonment.

*Oct. 31, 1751.*³⁰ One Wood, a hawker, for publishing advertisements at Birmingham³¹ for the sale of goods to be paid for in counterfeit halfpence, was apprehended, but released on consenting to the cutting of what halfpence he had taken, which amounted to £7. The halfpence were cut by a brazier and sold as metal.

*1752 (no month or day given).*³² This passage refers to the visit to Birmingham of the Solicitor of the Mint in the matter of the coining of counterfeit halfpence, and states that although offenders received two years' imprisonment, as under the Statute of 15 George II, this had proved an insufficient deterrent, and "the fraud continued, the counterfeits became more abundant than ever, and few payments were made without a large proportion of them, and there

²⁷ *ibid.*, p. 329.

²⁸ *Stat. 15 Geo. II*, cited above.

²⁹ *Gentleman's Magazine*, xxi, p. 378.

³⁰ *Ibid.*, p. 520.

³¹ A head-quarters of the counterfeiting industry. See below, *ibid.*, May 29, 1789.

³² *Gentleman's Magazine*, xxii, p. 500.

followed a general refusal to accept such". The same communication, for instance, tells us that "last week was a general meeting of the tradesmen at Abingdon, who came to a resolution to take no more Birmingham halfpence, and hope the tradesmen of other towns will follow their example".

"*Borough of King's Lynn, July 15, 1752.* Sessions of Peace before the Mayor and Recorder. Eugene Brady corkcutter for unlawfully unjustly and deceitfully uttering and paying to one John Lawrence 2000*d.*³³ pieces of false and counterfeit money for and as 2000*d.* pieces of good and lawful copper money coined by royal authority within this realm called half pence. True Bill." Two similar charges follow this, one concerning 3,000, the other 240, halfpennies.³⁴

*Feb. 19, 1753.*³⁵ "The trouble caused by counterfeit halfpence to shopkeepers and others, and the complaints of the poor, are so general that they have been refused in payment for some weeks past."

*March 14, 1753.*³⁶ Two persons, a man and a woman, were sentenced to two years' imprisonment for coining counterfeit halfpence.

*Jan. 25, 1754.*³⁷ This records the petition of a large number of traders to the Lords of the Treasury, setting forth the inconveniences caused by the bad copper coin, the existence of which they said was due to restrictions placed on the coinage of copper at the Mint, and begging for more effective laws against

³³ That is 4,000 halfpennies. There was then, of course, no penny-piece in copper.

³⁴ Communicated by Mr. E. M. Beloe, F.S.A., of King's Lynn.

³⁵ *Gentleman's Magazine*, xxiii, p. 98.

³⁶ *Ibid.*, p. 146.

³⁷ *Ibid.*, xxiv, p. 45.

counterfeiters, whose punishment was only two years' imprisonment.

*March 31, 1774.*³⁸ Information having been given to Sir John Fielding³⁹ that a company of coiners made a business of coining halfpence in a house on Fish Street Hill, he sent five armed men to take them by surprise. Eight were found at work. "The night before they had sent a child for some beer with new halfpence to pay for it; and the landlord observing to the child that they were warm, she innocently replied that her daddy had just made them."⁴⁰

*June 1, 1775.*⁴¹ At a meeting of tradesmen at the King's Arms Tavern, Cornhill, it was unanimously agreed to stop the circulation of bad halfpence.

*Jan. 10, 1776.*⁴² An instance is mentioned of a coiner at Bristol who "kept his carriage the better to carry on the business of coining without suspicion".

*May 29, 1789.*⁴³ "We have frequently seen advertisements in the papers of goods to be sold for counterfeit halfpence."⁴⁴ These halfpence, it seems, were circulated in Scotland, where "the common people would not receive the halfpence of George III". Nearly seven of them were worth one sterling penny; yet they passed current North of the Border at twenty-four to a shilling. The Scots were accustomed to old and bad money. This perhaps means that Jacobite feeling still existed there to such an extent that they would not accept coppers, genuine or forged, which

³⁸ *Ibid.*, xlv, p. 185.

³⁹ The blind half-brother of the novelist, whom he had succeeded in the magistracy.

⁴⁰ See below, p. 352. These were doubtless of the facsimile class.

⁴¹ *Gentleman's Magazine*, xlv, p. 300. ⁴² *Ibid.*, xlvi, p. 92.

⁴³ *Ibid.*, lix, p. 464. ⁴⁴ See above, *ibid.*, Oct. 31, 1751.

bore the head and name of George III, but that they would accept the evasions.

The false copper money for the most part left the original factories either as merely blank flans of the required module, to be stamped by the coiners, or as completely stamped already. Immense quantities of each kind were made in Birmingham, whence came most of the plain flans, London, Wedgbury (Wednesbury), Bilston, and Wolverhampton. After being stamped, the coiners sold them to the wholesale dealers at about one farthing per "halfpenny". These large dealers, however, were not themselves the utterers, but disposed of them in turn by retail in what were called "Pieces",⁴⁵ or five shilling papers, at the rate of from 28s. to 31s., nominal worth, for a guinea, not only to "smashers",⁴⁶ but to persons engaged in legitimate trades in the cities and large towns, who passed them on in the course of business at their full face-value.⁴⁷ The manufacturers of the blank flans could not be reached by the law, for such objects could easily be explained away by professing that they were intended for buttons, harness-ornaments, &c.⁴⁸ The spurious farthings, or "half-halfpennies", comparatively few of which were fabricated, were made chiefly in London, and were so light that the profit on them was proportionately much greater than that on the halfpennies, the gain in the case of the former being reckoned at not less than 200 per cent. In the latter part of the

⁴⁵ Packets.

⁴⁶ Utterers.

⁴⁷ Colquhoun, *op. cit.*, edition of 1800, pp. 180-1.

⁴⁸ See *ibid.*, edition of 1796, p. 139; Smiles, *Lives of Boulton and Watts*, p. 386.

century they were, however, usually of pure copper.⁴⁹ Indeed that was so with the halfpence generally.⁵⁰ Thus the defect was one of quantity rather than one of quality, and perhaps we should not speak of them as base coin.

It was calculated that two or three persons could make from £200 to £300 current worth of pseudo-halfpence weekly, and one expert enjoyed the reputation of being able to produce from £60 to £80 worth of farthings in the same time.⁵¹

The false coppers, whether facsimiles or evasions, seem to have been known as "Brummagem". Thus Southey, in *The Doctor*⁵²: "He picked it up and it proved to be a Brummejam⁵³ of the coarsest and clumsiest kind, with a head on each side".⁵⁴ These "Birmingham Halfpence" are spoken of by Raspe⁵⁵ as being fabricated by "shabby, dishonest button-makers in the dark lanes of Birmingham and London". Similarly "R. Y.", in the *Gentleman's Magazine*,⁵⁶ writes of "the clumsy and paltry productions which are hourly issuing from every dirty alley in London or Birmingham". It is probable that the following remark by Burke, made in the House of Commons

⁴⁹ Colquhoun, *ibid.*, edition of 1800, p. 181.

⁵⁰ *Ibid.*, p. 211.

⁵¹ *Ibid.*, edition of 1796, pp. 20-3, 121; edition of 1800, p. 181. See also *Gentleman's Magazine*, 1752, p. 500.

⁵² Chap. CXL.

⁵³ See Ruding, *op. cit.*, ii, p. 80.

⁵⁴ If not simply due to accident (cp. Montagu, *Copper, Tin, and Bronze Coinage of England*, 1893, pp. 86-7) this may have been what is known as a 'gambler's halfpenny'. One in my possession has two tails, formed by splitting a couple of halfpennies and welding their reverses together.

⁵⁵ *Catalogue of Gems*, 1791, *Introd.*, p. xlii.

⁵⁶ Sept., 1796.

during a debate on the Falkland Islands, Jan. 25, 1771, refers to these halfpence: "It puts me in mind of a Birmingham button which has passed through a hundred hands, and after all is not worth three-halfpence a dozen".⁵⁷

The dies from which these mock monies were stamped were treated in such a way as to produce coins that appeared worn. It is said, too, that "it was the common practice of the dealers in this article to fry a pan-full every night after supper for the next day's delivery, thus darkening them, to make them look as if they had been in circulation".⁵⁸ Presumably it was believed that this, and the preceding device, would inspire confidence in them: what apparently had been accepted before might as well be accepted again. With these tricks we may compare the custom followed by fabricators of false paper-money, who soil their forgeries so as to give them the appearance of much-used notes.⁵⁹ That these coins are now rarely found in sharp condition may be further due to the fact that they have not offered much attraction to collectors, and have been "knocking about" and roughly treated as beneath consideration.

⁵⁷ *Parl. Hist. Eng.*, xvi, 1345.

⁵⁸ *Letters from England by Don Manuel Alvarez Espriella, translated from the Spanish*, 2nd edition, London, 1808, ii, p. 62. The actual author was Southey. Cp. the extract from *The Adventurer* quoted below, p. 354.

⁵⁹ In an account of the recent trial of William Stephens, "The Coiner King" (*Empire News*, Oct. 28, 1923), it is stated that "some of his fabrications were filed, or sand-papered, till they resembled coins that had done long service, and then treated with some acid which dimmed their lustre and gave an appearance of age. Others were treated with a preparation, said to have been of his own invention, which dimmed or darkened them". These, however, were forgeries of the silver currency.

Pence were not forged: indeed, till the appearance of the fine "cart-wheel" penny, with its double, in 1797, there were none in copper to copy. Imitation of these would have been a formidable undertaking, and one not likely to meet with success, the less so as their respective weights of one ounce and two ounces were well known. This is the only instance in our country of the combination of coins and weights. Moreover, they were specially protected by the Statute of 37 George III, chap. 126.⁶⁰ According to Colquhoun,⁶¹ "some feeble attempts were made".⁶²

The original coiners and the much more numerous initial utterers of light coppers represent the first two stages of the nuisance; thereafter we have to consider how the supply spread throughout the country. Colquhoun writes:⁶³ "Scarcely a wagon or a coach departs from the metropolis which does not carry bags and parcels of base coin to the camps, sea-ports, and manufacturing towns". In London regular markets were held in public and private houses "by the principal dealers, where hawkers, pedlars, fraudulent horse-dealers, unlicensed lottery-office keepers, gamblers at fairs, itinerant Jews, Irish labourers, servants of toll-gatherers, Hackney-coach owners, fraudu-

⁶⁰ *Statutes at Large*, xvii, p. 125.

⁶¹ *Op. cit.*, edition of 1800, pp. 188, 194.

⁶² It is interesting to note that Rowland Rouse, eight years before the issue of these combined coins and weights, suggested that there should be an issue of a 1 oz. penny, $\frac{1}{2}$ oz. halfpenny, and $\frac{1}{4}$ oz. farthing, so that the poor would be provided not only with honest copper money, but also with juster weights than those used by small tradesmen, which must have been diminishing through constant use during a number of years (*Gentleman's Magazine*, lix, p. 608: May 18, 1789).

⁶³ *Op. cit.*, edition of 1800, p. 16.

lent publicans, market-women, rabbit-sellers, fish-eryers, barrow-women, and many who would not be so suspected, are regularly supplied with counterfeit copper and silver with the advantage of nearly £100 per cent. in their favour". Thus through these various channels, he adds, "the country is deluged with immense quantities of counterfeit money". In London the lower order of German Jews was particularly helpful to the dealers in the matter of passing on the bad halfpence. The latter commonly held a market every morning where "Jewish lads"⁶⁴ are regularly supplied at a discount with false halfpence which they dispose of for their full nominal value in the course of the day. They usually clear from 5s. to 7s. daily by this fraud, which they almost uniformly spend during the evening in riotous debauchery, returning penniless in the morning to their old trade."⁶⁵ *The Adventurer*,⁶⁶ in an article on the adulteration of the copper coin, also comes to our aid here: "Sir!" says the spurious halfpenny, "I shall not pretend to conceal from you the illegitimacy of my birth, or the baseness of my extraction; and though I seem to bear the venerable marks of old age,⁶⁷ I received my being at Birmingham not six months ago. From thence I was transported,

⁶⁴ In the recent case of Stephens, referred to above, it appeared in the evidence that one method was to "sell bad half-crowns to prepossessing young Jewesses living in the East End, who bought them at sixteen to the £1. They disposed of them to amorous young men, who paid them court, by artlessly complaining of the weight of silver in their bags or purses, and requesting that their admirers should change it into gold or notes".

⁶⁵ Colquhoun, *op. cit.*, edition of 1796, pp. 122-3; edition of 1800, pp. 182-3.

⁶⁶ Edition of 1778, ii, p. 65.

⁶⁷ Cp. the passage from "Espriella" cited above.

with many of my brethren of different dates, characters, and configurations,⁶⁸ to a Jew-pedlar in Duke's-place, who paid for us in specie scarce a fifth part of our nominal and extrinsic value. We were soon after separately disposed of, at a more moderate profit, to coffee-houses, chop-houses, chandler-shops, and gin-shops." Later in the same article⁶⁹ one of these halfpence meets with a suggestive adventure: "This morning a parish girl picked me up, and carried me with raptures to the next baker's shop to purchase a roll. The master, who was church-warden, examined me with great attention, and then gruffly threatening her with Bridewell for putting off bad money, knocked a nail through my middle, and fastened me to the counter: but the moment the poor hungry child was gone, he whipt me up again, and sent me away with others in change to the next customer." The toll-men at the turnpikes, to whom persons from all parts tossed these coppers as they passed, were an active medium of their circulation, for they would promptly get rid of them in change.⁷⁰ Colquhoun⁷¹ says the same: "Turnpike-men wilfully pass bad halfpence at one gate, which are refused at another." Boulton, in the letter cited above, wrote: "In the course of my journeys I receive upon an average two-thirds counterfeit halfpence for change at the toll-gates."⁷² The trade

⁶⁸ These were obviously of the evasive class. The first number of *The Adventurer* appeared on Nov. 7, 1752, a date which suits their first appearance.

⁶⁹ p. 69. Doubtless more references to the spurious coppers could be found in the periodical literature of the day.

⁷⁰ See "R. Y." in *Gentleman's Magazine*, April, 1797.

⁷¹ *Op. cit.*, edition of 1800, p. 198.

⁷² Smiles, *Lives of Boulton and Watts*, p. 391.

of dealing in base copper-money was "especially rampant towards the end of March, for, the lotteries being over, swindlers of all sorts, gamblers, hawkers, pedlars, travellers with E.O. tables,⁷³ go down into the shires with large accumulations of such pieces and spread their circulation among the ignorant country folk".⁷⁴

The eighteenth-century year-dates placed on most of the evasive coppers need not be taken seriously: indeed a considerable proportion of them are manifestly impossible. In fact, judging from the statement cited from the *Gentleman's Magazine* in the beginning of this paper, all prior to 1751 must be fictitious. These year-dates as a whole range from 1721 to 1798, but there are a few seventeenth-century dates⁷⁵ which are even more obviously false.

Seven only of the evasive halfpennies in Atkins's list bear the word "token",⁷⁶ though it might have been supposed to furnish an *altera securitas* against prosecution, for the late eighteenth-century copper tokens were winked at by the authorities. "The law was silent in the matter of this series."⁷⁷

We have seen that some of the halfpence in Atkins's list took the form of light counterfeits of the genuine tokens of the late eighteenth century, the imitating of which involved no legal risk. For example, Nos. 418-

⁷³ For a humorous account of this game of chance see *The World* (Chalmers' edition of *British Essayists*), No. 180.

⁷⁴ Colquhoun, edition of 1796, p. 128; edition of 1800, p. 188.

⁷⁵ Atkins, Nos. 14, 65, 71, 86, 136, 308, 323, 325, 398.

⁷⁶ Nos. 33, 104, 109, 114, 128, 144, 201.

⁷⁷ Colquhoun, edition of 1796, p. 137. All tokens, including the early nineteenth-century issues, were, however, condemned by the Statute of 57 Geo. III, chap. 46: June 27, 1817.

25 appear to be light forgeries of the tokens issued by Williams, the button-maker, whose genuine pieces are given by the former on his p. 139 (Nos. 729, &c.). So the Bevis halfpennies, Nos. 435-8, seem to copy the Gosport tokens in Atkins, p. 37 (Nos. 21, &c.). There exist also light Wilkinsons, which are doubtless counterfeits. It was the disgraceful state of the copper coinage that suggested and practically justified the appearance of the more honest token-money of the latter years of the century.

Four of the evasive halfpence bear the word "Half-penny",⁷⁸ and six of the half-halfpennies are stamped "Farthing".⁷⁹ These definitions of value the issuers might have in the first instance have considered safe, since they did not appear on the regal money of the period, the farthing of 1799 being a solitary exception.

A small proportion of the evasive halfpennies show initials, usually on the obverse below the bust. The following are found: **A**; **C**; **G**; **GD**; **GT**; **IC**; **IG**; **IF**; **IR**; **IM**;⁸⁰ **N**; **T**; **TD**; **TF**; **TR**; **WB**. The names of three Birmingham die-sinkers fit the seventh of the above signatures: John Gregory, jun.; John Gimblett; and James Good.⁸¹ These initials, however, may have been all fictitious, and merely added to inspire confidence. If genuine, they were probably set on the coins for the same reason, also in expectation of the evasive character of the pieces rendering them immune from prosecution, and discontinued on finding that their types gave no such security. If that be so,

⁷⁸ Atkins, Nos. 96, 134, 289, 431.

⁷⁹ *Ibid.*, Nos. 451, 459, 465, 469, 471, 477.

⁸⁰ The I no doubt often for J.

⁸¹ Forrer, *Dict. of Medallists*, vi, p. 398.

these signed examples would be among the earliest of the evasions. No initials have been noticed on the kindred farthings.

Colquhoun⁸² speaks of some of the evasive halfpence as "Irish Harps", meaning presumably those having on the reverse a harp with the legend Hibernia, or some, doubtless intentional, and more or less grotesque, misspelling of that word.⁸³ These harp pieces bearing as legend variations on Hibernia are clearly evasions of the copper halfpennies of Ireland. Altogether the Irish Harp type occurs twenty-eight times in Atkins's list of 450 halfpence, but there are fifty-seven "Welsh Harps", distinguished by the legend "North Wales" or "South Wales". There is only one harp reverse among his forty farthings, and that reads "Britannia".

In 1753 it was reckoned that one-half or two-fifths of the current copper money was counterfeit.⁸⁴ By the latter years of the eighteenth century there was a glut of halfpence in the country, so over-industrious had the coiners been in providing for the needs of the people; and Pinkerton, writing in 1789,⁸⁵ estimated that not the fiftieth part of the copper currency was legitimate. As already said, a large proportion of the heavier regal money had been melted to provide metal for the lighter forgeries. Doubtless he included the Token series, but even so this may have been an exaggeration, for Colquhoun's calculation in 1791 and

⁸² Edition of 1800, p. 103, and elsewhere.

⁸³ Such are Hiberia, Hibernta, Hibeknia, Hirarmia, Hereknia, Hiderala, Shebernia, and probably Yelarebih (retrograde).

⁸⁴ Snelling, *op. cit.*, p. 44; Smiles, *op. cit.*, p. 387.

⁸⁵ *Essay on Medals*, 1789, ii, p. 85.

1800⁸⁶ was three-quarters of the whole. Not only, therefore, was there no alternative to the acceptance of false money but, as pointed out above, the price of necessaries was enhanced, whereby the poor were especial sufferers.⁸⁷ The strength of the position occupied by the irregular money may be learnt from the reason given why in 1797 only twopenny and penny pieces were struck by the Mint. It was not considered desirable to drive the halfpenny and farthing tokens, and the forgeries of both kinds, instantly out of circulation, because that would result in a sudden deficiency of small copper, which would be a great inconvenience to the humbler classes, "whose monetary dealings were for the most part in small sums; and Boulton, with all his art and machinery, could not supply such with sufficient expedition".⁸⁸ For another reason, too, the lower classes were especially victimized by the light forgeries. Being illiterate, they were unable to distinguish between them and the State moneys. A glance at the travestied legends on the evasions will illustrate this: for example, such distortions as **GEORGIAS, GLORIOUS, GLACIOUS, BATTERSEA, BRITONS RULE, BONNY GIRLS**, or even far more remote forms, according to the measure of individual ignorance, would serve them well enough for **GEORGIVS** and **BRITANNIA**.

The issue of the heavier, and so more honest, tokens of 1787-97 was really a public convenience. Moreover, the publishers of the tokens struck for currency⁸⁹ were

⁸⁶ pp. 125 and 185 respectively.

⁸⁷ *Ibid.*, edition of 1800, p. 186.

⁸⁸ Lord Liverpool, *op. cit.*, pp. 195-6. See also "Civis" in *Gentleman's Magazine*, January, 1797.

⁸⁹ Many of the tokens, of course, were medallie only, and many

usually known, and their coins commonly bore a pledge that they would be honoured; whereas the facsimile forgeries of the Tower money and the evasions were not "promissory notes" like the bulk of the genuine tokens.

The regal halfpence and farthings of 1799⁹⁰ were not struck in sufficiently large numbers to drive the irregular coinages out of circulation, and under Gresham's Law "the lean coins eat up the fat ones".⁹¹ It was the very large issue by the Government of all three denominations, penny, halfpenny, and farthing, of comparatively⁹² honest intrinsic value in 1806-7 that killed the eighteenth-century facsimile forgeries, the evasions, and the tokens.⁹³

FRANCIS PIERREPONT BARNARD.

were merely made for collectors and multiplied by muling; while others were political manifestoes, and therefore again of a medallie character. But the worn condition in which a large proportion of such pieces have come down to us testifies to their having been handled as money.

⁹⁰ These were somewhat under weight owing to a rise in the value of copper ore (Ruding, ii, p. 101), but still superior in that respect to the forgeries.

⁹¹ It is interesting to find the practice of melting fine coin for re-striking in larger numbers but inferior quality apparently referred to by Aristophanes (*Ranae*, ll. 717-37): the passage suggests that the good money was either hoarded or treated as described.

⁹² They were again below full weight, and for the same reason (Ruding, ii, p. 105).

⁹³ Montagu, *op. cit.*, pp. 97-8.

XVII.

SOME NOTABLE COINS OF THE MUGHAL
EMPERORS OF INDIA.

PART II.

[PLATES XXIII-XXV.]

THE first portion of this paper appeared in the *Numismatic Chronicle and Journal of the Royal Numismatic Society* for 1923; I invite a reference to the foreword. This second and concluding part is concerned with the coins of the emperors who followed Jahāngir.

DĀWAR BAKHSH.

The *khutbah* was read in the name of Dāwar Bakhsh by the orders of Āṣaf Khān, father of Nūr Jahān, in the environs of Bhimbar, while Shāh Jahān was being detained at Bijāpūr in the Deccan.

About a dozen coins of this pretender are known, all rupees of the same type from Lāhor mint: they exist from more than one die. These pieces display only

	<i>Obv.</i>	<i>Rev.</i>
1. The Kalimah ; ۱۰۳۷		بادشاه
Below		بخش
	نرب	داور
	لاهور	المظفر
		ابو احد

At .85. Wt. 176.5. [Pl. XXIII. 1.] B.M.

the birth name of the ill-fated son of *Khusrū*, and it is safe to say that the official style of the *khutbah* and *sikkah* was never formulated—*Mem.*¹, p. 298. I illustrate a fine specimen which was in my own cabinet.

SHĀH JAHĀN.

Extraordinary Issues.

The Lāhor rupee in the British Museum (Cat., 578), which exhibits Shāh Jahān's birth name *Khurram*, gives the *laqab* of the emperor as ناصر الدين. It must have been struck before the formal adoption of the official style and titles of the new emperor at his coronation. The Sūrat rupee—P.M.Cat., 1831—with the abnormal legend شاه جهان رائج باد appears also to be a pre-accession issue—*Mem.*, p. 299. Mr. Hodivala has dug out a reference in a contemporary European record to this unauthorized product of the Sūrat mint. I know of half a dozen specimens, one of which bears a unique arrangement of the superscription.

<i>Obv.</i>	<i>Rev.</i>
2. The Kalimah, and	شاه جهان
۱	سکه
سنة	رائج باد
۱۰۳۷	ضرب
	سورت
	B.M.

¹ I have made many references to the valuable historical researches of Professor S. H. Hodivala, Principal of the Baha ud Din College, Junagadh, Kathiawar. *The Second Memoir of the Numismatic Society of India, Historical Studies in Mughal Numismatics*, Baptist Mission Press, Calcutta, 1923, is the culmination of this work, and I wish to record my obligations to these admirable essays.

3. I illustrate the Khurram rupee at New York; this and the British Museum coin are the only known specimens. These Lāhor and Sūrāt issues have a rare feature in common; the regnal year is expressed by the unit figure instead of the usual word احد.

<i>Obv.</i>	<i>Rev.</i>
The Kalimah, and ضرب لاہور سنة جلوس ۱۰۳۷	بادشاہ غاز محمد شاہ خرم الدين جهان سر ابو المظفر نا
	[Pl. XXIII. 3.] A.N.S.

Normal Currency.

Gold.

<i>Obv.</i>	<i>Rev.</i>
4. The Kalimah, and ضرب سنہ دارالخلافۃ اکبر آباد الہ خورداد ماہ	بادشاہ غاز شاہ جهان محمد شہاب الدين نوح صاحب قران نا
	[Pl. XXIII. 2.] Berlin.

This is a mohur of *Dāru-l-kh̄ilāfat* Akbarābād of date A. H. 1037, regnal year 2, *ilāhī* month Khūrdād. The name of Āgrah was altered to Akbarābād in Shāh Jahān's second regnal year. The emperors Jahāngīr and Shāh Jahān continued the use of the word *ilāhī*, though Akbar's *Ilāhī* Era died with him, and it makes its last appearance on some coins of the claimant Murād Bak̄hsh. Mr. Hodivala has shown that the epithet *ilāhī* qualifies the name of the month only,

and that the *julūs* years of Shāh Jahān are lunar and not solar—*Mem.*, Paper XVI, The *Julūs* Years of Shāh Jahān.

5.	<i>Obv.</i>	<i>Rev.</i>
In square area, the Kalimah.	In square area	
In margins:		شاه جهان بادشاه غازی
Right	بصدق ابی بکر	In margins:
Bottom	و عدل عمر	Top
Left	بازرم عثمان	شهاب الدین محمد
Top	و علم علی ۱۰۳۸	Bottom
		صاحب قران ثانی سنه
		Right
		خلد الله ملکه
		Left
		ضرب اکبرآباد

N 1-1. Wt. 164. [Pl. XXIII. 4.] B.M.

This is a broad, ornate piece of Akbarābād mint; date 1038, 2. The early occurrence of the "square areas" type is noteworthy.

6. A mohur of the "square areas" type; the bottom margin of the reverse side contains the legend ۱۰۵۷ ضرب بلخ. This unique piece testifies to the Mughal occupation of Balkh in the year A.H. 1057. There is a reference to this event in Manucci's *Storia do Mogor*, i, p. 185. We are told that silver *shāhis* were struck at Balkh mint in the name of Shāh Jahān—*Mem.*, p. 361.

N 75. Wt. 168. [Pl. XXIII. 5.] B.M.

7. There is a nice ornate piece in the British Museum of Burhānpūr mint, date 1041. The reverse marginal legends are similar to those of 5.

N 1. Wt. 168. B.M.

8. A "square areas" type mohur of Pattan Deo mint, year 1047: mint name in left reverse margin.

B.M.

9. A half mohur of Tattah mint: year 1039, 2; month illegible.

N .7. Wt. 83.

B.M.

10. The British Museum now possesses two gold coins of Dehli mint: both pieces are recent acquisitions, and are the first gold Dehli pieces to be found of this reign. They are of silver type, L.M.Cat., 2145; dates 1047 (in top left obverse margin), and 1054, 17. The former coin belonged to Mr. Denzil Ibbetson, I.C.S., afterwards Sir Denzil Ibbetson, K.C.S.I., Lieutenant-Governor of the Punjab; and the latter to Sir Thomas Dennehy, K.C.I.E.

In the year A. H. 1048 Shāh Jahān "built a city near Dehli, which he named Shāhjahānābād"—Sir Henry Elliot, *History of India*, vol. viii, p. 12; this new name appears on the coins struck at the capital throughout the remainder of the dynasty. The change of name occurs on the silver coins in the year 1058. There is a rupee of Dehli mint in the British Museum of this year; and one of Shāhjahānābād mint dated 1058, 22, at Lahore—P.M.Cat., 1353.

11. The *ilāhī* months are seldom found on the abundant issues of the Sūrat mint. Five examples in gold are:

2, Isfandārmuz; 4, Khūrdād; 5, Mihr. A.N.S.

4, Farwardīn; 5, Isfandārmuz. B.M.

The Hijrī year is absent from these *ilāhī* month coins, whether of gold or silver.

12. There are two gold coins of *Ḳandahār* mint in the British Museum, both of the "square areas" type. One has the mint in the bottom margin, date missing; the mint of the other is in the left margin, and the regnal year is 18.

13. A mohur of *Kashmīr* mint, "square areas" type; the name of the mint and the year 1065 are in the bottom margin.

B.M.

14. Pieces in both gold and silver are known of *Gulkandah* (*Golconda*) mint, of local style and without date, e.g. I.M.Cat., 948. The *Golconda* rupees of *Shāh Jahān* have been discussed at some length by Mr. Hodivala in *N.S.* xxvii, *J.A.S.B.*, 1916. "When the *Gulkandah* ruler was brought to his knees in A. H. 1045, he agreed not only to pay tribute and permit the *khutbah* to be read in the emperor's name, but to strike coins also with the imperial titles." Mr. Hodivala showed from contemporary evidence that "the dies of the first issues were not permitted to be made in the local mints, and that they were sent to *Gulkandah* from the imperial head-quarters with the imperial style and titles inscribed, just as in the *Akbarābād* or *Dehli* mintages". This has been confirmed by the happy discovery of a gold *Gulkandah* piece of *Shāh Jahān*, which, when I saw it in 1920, was in the possession of *Khwajah Shams Din*, Honorary Magistrate, *Ludhiana*, *Punjab*. It is a broad piece in good imperial style, of the dotted line "square areas" type; date 1045, 9. The figure 9 is in the reverse area, the date 1045 in the obverse area, and *خرب کلکندہ* in the bottom reverse margin.

Silver.

15. In A. H. 1068, near the end of the reign, a distinctive and handsome "eight-foil area" type was established at the mints of Aḥmadābād, Akbarābād, and Daulatābād. I illustrate the Aḥmadābād rupee at New York, a duplicate of which is in the British Museum; the date is 1068, 31.

[Pl. XXIII. 7.]

A.N.S.

16. On the Akbarābād issue the epithet *Dāru-l-khilāfat* is revived. The dates are 1068, 31; 1069, 32.

B.M.

17. The Daulatābād coins are dated 1068, 31; 1068, 32. There is also a half-rupee of the former date.

B.M.

18. *Obv.*
The Kalimah, and

ضرب
دار للخلافة أكبر اباد الہیج سنہ
اردبہشت ماہ

Rev.

بادشاہ غاز
۱۰۳۷
شاہ جهان سنہ
شہا الدین محمد نے
صاحب قران نا

Square. AR .8. Wt. 171. [Pl. XXIII. 8.] B.M.

This unique and beautiful square rupee is of mint *Dāru-l-khilāfat* Akbarābād, and date 1037, 2, *Ardibihisht*.

19. There are three rupees of Akbarābād mint in the British Museum of the "square areas" type, year 1047, 10, which also show the *ilāhī* month. Two are of

month Tir, and the third of Amardād. The introduction of the *ilāhī* month into the "square areas" type is most unusual. As a general rule the month disappears from Shāh Jahān's coinage after the sixth year, and its use to the end of the reign persists at Tattah only.

20. In the same year, 1047, a "round areas" type of Akbarābād mint was sandwiched between the "square areas" issues. The legends are as usual, the words شهر اکبر آباد are in the left top quarter of the reverse margin—cp. L.M.Cat., 1884.

B.M.

21.	<i>Obr.</i>	<i>Rev.</i>
The Kalimah, and	<u>ماه الهی</u>	جهان شاه
	احد بهمن سنه	<u>بادشاه غازی نع</u>
		صاحبقران کا
		—
		سر برهانپور

B.M.

22. As 21, but month Isfandārmuz.

B.M.

Coins 21 and 22 are rupees of Burhānpūr mint, first year, months Bahman and Isfandārmuz. The type is unusual.

23. A rupee of Sūrāt mint similar to the gold coins 11; fourth year, month Tir.

B.M.

24.	<i>Obv.</i>	<i>Rev.</i>
On flowered field in square area, the Kalimah, and ۱۸; in mihrabi marginal areas:		In square: بادشاه غاز شاه جهان
Below	بصدق ابی بکر	
Left	و عدل عمر	In margins:
Top	بازم عثمان	شهاب الدین | محمد صاحب
Right	و علم علی ۱۰۸۴	قران ثانی | ضرب اکبرآباد
	At 1-35. Wt. 172.	[Pl. XXIII, 8.] Berlin.

This is a broad rupee of Akbarābād mint of the "square areas" type; date 1054, 18. It is a splendid example of the moneyer's art at this period. Another specimen from different dies is P.M.Cat., 1249.

25. According to the *Bādīshāhnāmah*, the *khutbah* was recited and coins struck in Shāh Jahān's name in Ḳandahār (Afghānistān) in 1047, eleventh regnal year—*Mem.*, pp. 332, 360. I do not know of the existence of any coin of year 1047, but those of 1048 and succeeding years are fairly abundant; they are distinctly local in style. In the British Museum there is a "square areas" piece, date 1044, 8, of true imperial style: Lucknow Museum possesses a coin of even earlier date, 1042, 5. It is clear that terms were imposed upon the Persian governor of Ḳandahār prior to the year 1047.

NĪSĀRS.

For the purposes of this note I reserve the term *nīsār* for those pieces which actually bear the word. It signifies "strewing, scattering", and is found on the special pieces of the Mughal emperors which were coined for the purposes of largesse scattered amongst the crowd. They were first struck by Jahāngīr: his

niṣārs are very scarce, four are known in gold, less than a score in silver. These dainty and rare pieces are of beautiful workmanship. Mr. Hodivala has said the last word about them—*Mem.*, Paper XIV—and the essay is marked by his usual erudition and wealth of illustrative detail. He shows that the word نثار is used for the act of scattering or showering, or for the things scattered or showered such as coins, gems, imitation fruits and flowers in the precious metals. Mr. Hodivala holds that "the size, thickness, and weight were dependent, not on any determinate subordinate relation to the gold or silver currency unit, but on the amount of money which the imperial or other donor was willing to give away as largesse in connexion with the particular function or ceremony, and the fractional subdivision was regulated accordingly". But actual *niṣār* weights do tend to uniformity. In *N.S.* xxxii, *J.A.S.B.* 1918, Mr. H. R. Nevill described a find containing thirteen silver *niṣārs* of Shāh Jahān and Aurangzeb. The scale of weights runs almost exactly as 11, 22, 44, and 88 grains. These must be equivalent to the sixteenth, eighth, quarter, and half-parts of a rupee respectively. I have confirmed this in other cases. The usual *niṣār* weight is that of the quarter mohur and the quarter rupee.

The *Niṣār* ceremony was an event of frequent occurrence, but probably the pieces with the word نثار actually stamped on them were, like our Maundy money, seldom struck, the greater proportion of largesse consisting of ordinary coin of the realm, or of gold and silver tokens in other forms. At all events *niṣārs* are rare nowadays, and I do not suppose the total number of gold pieces exceeds ten. The silver

niṣārs of Shāh Jahān and Aurangzeb are comparatively abundant. No *niṣārs* are known of Shāh 'Ālam Bahādur. There is a unique piece in silver of Jahāndār (British Museum), and some half-dozen silver *niṣārs* exist of Farrukhsiyar. The usual mints are Akbarābād, Shāhjahanābād, and Lāhor. The silver *niṣār* is a thin piece equivalent in weight to the fourth part of the rupee, the full rupee weight being c. 178 grains. It is frequently smaller; half a dozen large silver *niṣārs* of the half-rupee weight are known of Shāh Jahān and Aurangzeb. The weight of the gold *niṣār* of Shāh Jahān and Aurangzeb is about 43 grains.

As regards legends, the *niṣārs* of Shāh Jahān fall into two main classes, the normal obverse inscriptions being as follows:

A	B
بادشاه غاز <hr style="width: 50%; margin: 0 auto;"/> شاه جهان نثار	ثنائع <hr style="width: 50%; margin: 0 auto;"/> صاحب قران نثار

The reasons for Shāh Jahān's assumption of the *laqab* "Ṣāhibqirān i Ṣānī" are given by Mr. Hodivala in *N.S.* xxxv.

Gold.

26.	<i>Obv.</i>	<i>Rev.</i>
	غازی شاه	اکبر بادا دار الخلافة
	جهان باد شاه	صرب ۱۰۳۶
	نثار	سنه
	A 65. Wt. 39. [Pl. XXIII. 9.]	B.M.

A gold *niṣār* of Akbarābād mint, date 1042, 5; formerly in the Bleazby Collection. The British Museum already possessed a gold *niṣār* of type B (Šāhibkīrān legend), date 1069, and mint Shāhjahānābād—B.M.Cat., 689), weighing 43 grains.

27. Mr. H. Nelson Wright has two gold *niṣārs* of Shāh Jahān, both of *Dāru-l-khilāfat* Akbarābād mint.

Type A; date 1048, 11. Wt. 42·6.

Type B; date 1068, 31. Wt. 42·4.

Silver.

28.	<i>Obv.</i>	<i>Rev.</i>
	۱۰۲۹	احمدآباد
	جهان	صرب
	شاه	۳۳
	نثار	سنه
	AR 65. Wt. 43. [Pl. XXIII. 10.] B.M.	

This is one of two known *niṣārs* of Aḥmadābād mint, both silver, of Shāh Jahān. The other is in the cabinet of Mr. H. Nelson Wright; date 1054.

29.	<i>Obv.</i>	<i>Rev.</i>
	نثار صاحب قران ثا ن	دار الخلافة
	شاه جهان	صرب
	بادشاه غاز	۱۰۵۴
		سنه
		اکبرآباد هجر
		۱۸
		سنه جلوس

AR 1·05. Wt. 82. [Pl. XXIII. 11.] B.M.

A large silver *niṣār* of Akbarābād mint, date 1054, 18, from the Bleazby Collection. With it may be compared the piece in the Bibliothèque Nationale, Paris, of date 1046, 9; a fine specimen of the latter is at Berlin.

<i>Obv.</i>	<i>Rev.</i>
قران ثا نع	اباد
صاحب	اکبر
نشار	دار الخلافة
سنه ۹ جلوس	ضرب
	سنه ۱۰۴۶
	هجر

Ar 0.9. [Pl. XXIII. 12.] Paris.

30. A large *nisār* of Shāhjahānābād mint, date 1060, 24, is described and illustrated at B.M.Cat., 669; it weighs 88 grains. A similar piece in the Delhi Museum, India, has the following legends:

<i>Obv.</i>	<i>Rev.</i>
بادشاه غاز	جهان اباد
شاه جهان	شاه
ثا نع	دار الخلافة
نثار صاحب قران	ضرب
	سنه هجر ۱۰۶۳
	سنه ۲۶ جلوس

Ar 1.25. Delhi.

It is of mint *Dāru-l-Khilāfat Shāhjahānābād*; Hijrī year 1063, regnal year 26.

31. <i>Obv.</i>	<i>Rev.</i>
بادشاه غاز	آگره
شاه جهان	الخلافة
نثار	دار
سنه احد	ضرب
	۱۰۳۷
	سنه

Ar 65. Wt. 44. [Pl. XXIII. 13.] B.M.

A *niṣār* of the first year from Āgrah mint. Coin L.M.Cat., 2423, differs in the arrangement of the obverse legend. The British Museum possesses a specimen of the issue L.M.Cat., 2424.

32.	<i>Obv.</i>	<i>Rev.</i>
	١٧ ثا ن	اکبر آباد
	صا حبقران	دار الخلافة
	نشار	ب
		١٠٥٣

R -5. Wt. 43. [Pl. XXIII. 14.] Berlin.

This is a beautiful piece of Akbarābād mint; type B, date 1053, 17. The Kaiser Friedrich Museum possesses three other normal size *niṣārs* of Akbarābād mint, type A; dates 1043, 6; 1044, 8; 1060, 24.

33. Other Akbarābād *niṣārs* in the British Museum are:

Type A. Dates 1042, 6; 1048, 11; 1056, 20.

Type B. Dates 1054, 17; 1069, 33 [Pl. XXIV. 1.]

Mr. Nelson Wright has one of type A, date 1039, 2.

34. Other Shāhjahānābād *niṣārs* in the British Museum are:

Type B. Dates 1063, 26; 1066, 29; 1067, 31.

35.	<i>Obv.</i>	<i>Rev.</i>
	٣٢ ثا ن	نکر ٣٢
	قران	اکبر
	حب	ضرب
	١٠٦٨ صا	

R -55. Wt. 43.

B.M.

A *niṣār* of Akbarnagar mint, type B, date 1068, 32; from the Bleazby Collection. Cp. L.M.Cat., 2422 a, of

date 1065, 29. There are two silver *niṣārs* of Akbar-nagar mint in the Cabinet de France, of dates 1066, 29; 1068, 32.

36. There are eight *niṣārs* of Lāhor mint in the British Museum, all of the normal quarter-rupee size:

Type A. "Lāhor". Date 1044, 7—B.M.Cat., 632.

Type A. "*Dāru-s-salṭanat* Lāhor". Dates 1049, 13; 1050, 14; 1051, 15 (two specimens).

Type B. "*Dāru-s-salṭanat* Lāhor". Dates 1058, 20; 1061, 24; 1062, 26. At Berlin one dated 1063, 26.

Gold and large silver *niṣārs* of Lāhor mint are still wanting.

37.	<i>Obv.</i>	<i>Rev.</i>
	قران ثا نع	کشمیر
	۱۳	ضرب
	صا حب	۱۰۰
	نثار	سنة

R .65. Wt. 42. [Pl. XXIII. 15.] B.M.

This is a *niṣār* of Kashmīr mint, type B, date 1050, 13, from my own cabinet. With it may be compared coin B.M.Cat., 671; also the following specimen of year 25 in the Kaiser Friedrich Museum.

<i>Obv.</i>	<i>Rev.</i>
...	کشمیر
قران	ضرب
حب	۲۰
نثار صا	سنة

R .45. Wt. 17. Berlin.

38. Mr. H. Nelson Wright has *niṣārs* of Urdū Zāfir Kārīn (type A); Patnah, 1040, 3; *Baldat* Burhānpūr,

1041, 5; Daulatābād (type A). The first-named piece is the only coin known to me outside Akbar's reign struck in the Camp associated with Victory.

By kind permission of the College I include descriptions of the following coin, and of nos. 80 a and 95 a which are in the Library of Christ Church, Oxford.

The *niṣār* is of the usual quarter-rupee size; date 1037, 1; mint Lāhor.

38 a.	<i>Obv.</i>	<i>Rev.</i>
	شاه جهان نشار	. . . شهر زر
	شاه خرم غاز	مهر
	۱	۱۰۳۷
	سنة	از سر افراز
		لاهور
		ضرب

R. Christ Church Library, Oxford.

This remarkable and unique coin is a silver *niṣār* of Shāh Jahān on which he is called both Shāh Jahān and Shāh Khurram, Khurram being that emperor's birth-name. It must be the largesse piece struck in Lāhor to celebrate Shāh Jahān's accession. The inscription appears to form a rhyming couplet, but I have not yet elucidated the reverse legend.

نشار شاه جهان شاه خرم غازي
مهر . . . شهر زر از سرافرازي

SMALL PIECES.

Except the half, fractions of the rupee are rarely found of any reign. Sometimes fractional pieces do not follow the prevailing rupee type and style, but are of a superior and exceptional model resembling the

niṣārs. Possibly such coins were struck as largesse money. I describe one or two specimens of these outstanding issues.

39.	<i>Obv.</i>	<i>Rev.</i>
	In triple circle	اکبرآباد
	غاز	دار الخلافة
	شاه جهان بادشاه	سرب
	صاحب قران نا	۱۰۴۷
		سنه
	R .75. Wt. 85. [Pl. XXIV. 2.] B.M.	

A half-rupee of Akbarābād mint; date 1047, regnal year wanting.

40.	<i>Obv.</i>	<i>Rev.</i>
	نا	اکبرآباد
	قران	سرب
	حب	۱۰۴۹
	صا ۱۳	
	R .5. Wt. 20. B.M.	

A one-eighth of a rupee; mint Akbarābād; date 1049, 13.

41.	<i>Obv.</i>	<i>Rev.</i>
	بادشاه غاز	آباد
	۲۳	جهان
	شاه جهان	شاه
		۱۰۵۹
		سرب
	Square R .4. Wt. 21. [Pl. XXIV. 3.] B.M.	

A square one-eighth of a rupee; mint Shāhjahān-ābād; date 1059, 23.

42.	<i>Obv.</i>	<i>Rev.</i>
	قران تانہ	لاهور
	18	سرب
	صاحب	دار السلطنة
		۱۰ | ۱۰ | ۱۰
		منہ

R. S. Wt. 85.

B.M.

A half-rupee of *Dāru-s-saltanat* Lāhor mint, date 1051, 15, of the *niṣār* type.

Copper.

There are now in the British Museum sixty copper coins of *Shāh Jahān* of thirteen mints. The types and dimensions of *Mughal* copper coins are different from those of the gold and silver currencies. The *Akbarī dām*, equivalent to the half *tankah*, weighs *c.* 320 grains, and remains the copper unit throughout the reigns of *Jahāngīr* and *Shāh Jahān*. The only specimen of a double *dām*, or full *tankah* of *Shāh Jahān* known to me is the coin of Lucknow mint, weighing 610 grains (worn), in the Indian Museum, Calcutta—*I.M.Cat.*, 1110. The weight-standard was lowered to *c.* 214 grains in the reign of *Aurangzeb*—*Hodivala, N.S.*, xxviii (*J.A.S.B.*, 1917). A few pieces are known which I regard as "copper rupees", that is to say, in type, shape, and dimensions, they approximate to the silver currency. Perhaps they were emergency pieces; some may be contemporary forgeries of silver coins which were intended to be plated, or from which the plating has disappeared. In any case they are pieces of quite exceptional character.

43. This is a copper coin of Akbarābād mint, date 1040, 3, of silver type—P.M.Cat., 1240—and is a fine specimen. Though too thick and broad to be a "copper rupee", it is not a *dām*, nor does its weight conform with the reduced standard of Aurangzeb. A silver coin of the same dimensions would weigh 337 grains, so this piece corresponds in size with a possible double rupee, though a double rupee of Shāh Jahān has never been found. This piece came from my cabinet, and is the only coin of its kind I know.

Æ .95. Wt. 287. [Pl. XXIV. 4.] B.M.

44.	<i>Obv.</i>	<i>Rev.</i>
	قرا نم	۱۰۴۳
	صاحب	سنه
	فلوس	کشمیر
		عرب

Æ .8. Wt. 318. B.M.

This is the first copper coin to be discovered of Shāh Jahān of Kashmīr mint. It came from my collection.

45. The British Museum has a copper coin of Shāh Jahān of Lāhor mint, of the silver type—P.M.Cat., 1385; no dates are visible. It is too thick to be a "copper rupee", and may be intended to be a half *dām*. Apart from this exceptional piece, copper coins of the emperors Jahāngīr and Shāh Jahān of Lāhor mint are unknown.

Æ .65. Wt. 152. B.M.

SHĀH SHUJĀ'.

François Bernier recorded a vivid description of the struggle for empire between the four sons of Shāh Jahān—*Travels in the Mogul Empire*, Oxford University Press, pp. 1 f.—from which Aurangzeb emerged victorious. Both Murād Bakhsh and Shāh Shujā' had the *khutbah* recited and coins struck in their own names in Gujarat and Bengal respectively.

According to a work called the *Mirātu-l-khiyāl*, the full name of Shujā' is Abū'n-Naṣr Naṣīru-d-dīn Muḥammad Sulṭān Shujā': he is frequently styled Pādīshāhzādah Muḥammad Shāh Shujā' Bahādur in the *Bādīshāhnāmah*—*Mem.*, pp. 300, 301. The issues of this claimant are exceedingly scarce, and in the year 1912 I knew of only five specimens, all rupees; two in the British Museum of a "square areas" type, a similar coin in my own cabinet, and two rupees of a second type, one in the Lucknow Museum, and the other in the Mughal collection of Dr. G. P. Taylor, of Ahmadābād, which was subsequently acquired by myself. The tentative mint readings given in the B.M. Cat. are not correct. In *N.S.* xx (*J.A.S.B.*, 1912) I described all five coins, and ascribed the second type of rupee to Akbarnagar mint. Half a dozen more rupees of Shāh Shujā' have come to light in recent years. The *Annual Report of the Archaeological Survey of India*, Eastern Circle, 1917-18, contains a reference to a find in the Bihar and Orissa Province of 134 silver coins, four being of Shujā' and the rest of Shāh Jahān. I obtained casts of all four specimens; two are of the "square areas" type, and two of the second type. One of the former is a fine specimen, and is now in the Madras Museum. The legend in the top reverse

margin is نصير الدين محمد. The inscription in the left margin begins with the name of the mint پتنه (Patnah), which is followed by the patronymic. This is certainly not Abū'n-Naṣr, and Mr. Hodivala is almost sure that the correct reading is ابو الفوز, Abū'l Fauz, father of authority or power—*op. cit.* But even yet some features of the legends are uncertain. I give the readings of the various types as far as they can be elucidated from existing material.

46. Type A. Square Areas. Variety I. B.M.C., 690.

Obv.

In square area the Kalimah and ۱۰۶۸; in the margins names of the four Imāms and their attributes.

Rev.

In square area

بادشاه غاز
 احد شجاع محمدی
 شاه

Marginal inscriptions:

Top نصير الدين محمد

Right صاحب قران ثانی

Bottom

[سکندر ثانی ضرب]

Left پتنه ابو الفوز

[Pl. XXIV. 5.]

The positions of the dates differ. Both dates are missing from a specimen of mine of somewhat inferior style, now in the British Museum. The word احد is omitted and the figures ۱۰۶۸ are replaced by a small arabesque. This type was struck at Patnah mint, and some half-dozen specimens are known. The *'alam* or Muhammadan name of *Shujā'* was محمد. But these pieces also bear the word محمدی, which is found on no other Mughal coin. It is given in dictionaries as an

adjective meaning Muhammadan, but possibly has a special significance here.

Type A. Square Areas. Variety II. B.M. Cat., 691.

47. *Obv.*

Rev.

Like variety I.

In square area

محمد شاه شجاع احد

—

بادشاه غاز

Marginal legends :

Top نصير الدين . . .

Right صاحب قران ثاني

Bottom

[سكندر ثاني . . .]

Left

This coin is still unique. It is probable that the top reverse marginal legend begins with the patronymic which is presumably ابو الفوز. The 'alam محمد is now in the square area; on the other hand the word محمدى is omitted. The words سكندر ثاني are much mutilated in all existing specimens of both varieties, but are fairly certain, especially as they are found on type B. The mint is probably in the left margin, but is quite illegible.

48. Type B.

Obv.

Rev.

The Kalimah in square area, and the usual marginal legends; date 1078 in bottom left-hand corner of area.

محمد ح

بهادر غازي

—

محمد شاه شجاع احد
نح

سكندر تا ضرب ابرنگار

The first discovered specimen of this type (now L.M.Cat., 2457 a) was described by Sir Richard Burn in *N.S.* vi: three others are known. I am not satisfied with my reading on p. 535, *J.A.S.B.* 1912, though I cannot suggest anything better, and now merely give the words which seem to be certain. The unique epithet محمدی again appears. This type was struck at Akbar-nagar (Rājmaḥal), which was the principal residence of Shāh Shujā'—Manucci's *Storia do Mogor*, vol. i, pp. 228, 334.

MURĀD BAKHSH.

The claimant Murād Bakhsh is the last of the Mughals to employ the word *ilāhī* on the currency. The top reverse margin of the Sūrāt rupees contains the legend ماہ الہی احد; as is so often the case, the die was much too large for the flan, and the name of the month is usually missing. Coin I.M. Cat., 1118 has Farwardīn. The legend on the Aḥmadābād rupees is merely سنہ احد, but the additional word الہی appears clearly on an Aḥmadābād gold coin in the British Museum. The remaining known mint of Murād Bakhsh is Khambāyat. The normal coins of Khambāyat, both in gold and silver, have the mint in the left reverse margin, and سنہ احد or احد in the top margin on the same side. But the Taylor collection had a fine and unusual rupee of Khambāyat mint, *ilāhī* month Āzar, which has gone to the British Museum viā my own collection. Another specimen is I.M.Cat., 1117.

49.
In square area

Rev.

غازی
شاه

مراد بخش باد

Left margin

احد اذر ماه

Top margin

الہی ضرب کهنیایت

R .8. Wt. 177.5. [Pl. XXIV. 6.] B.M.

Gold coins of Murād Bakhsh are very rare, but exist of all three known mints. The British Museum has mohurs of Aḥmadābād and Khambāyat; there is a gold Aḥmadābād at Berlin. Only two copper coins are known, full *dāms* of Sūrat mint—*N.S.*, i, *J.A.S.B.* 1904. One of these is now in the Indian Museum, Calcutta.

AURANGZEB.

The mohurs and rupees of the emperor Aurangzeb 'Ālamgīr bear a rhyming Persian couplet on the obverse side; on the other the formula جلوس میمنت مانوس . . . ضرب, "struck at [] in the [] regnal year associated with prosperity". This reverse formula is used throughout the remainder of the dynasty. As a rule each succeeding emperor adopted his own coin couplet. The references in the 'Ālamgīrnāmah and *Maāsīr-i-'Ālamgīrī* to Aurangzeb's style and titles, and other interesting items concerned with the inauguration of his coinage, are given in *Mem.*, pp. 326, 363. The Kalimah disappears from the currency, and its use was only revived by the pious 'Ālamgīr II. The vast mass of Aurangzeb's coinage, extending over a long reign of fifty-one years, is redeemed from monotony by its many mints, which reflect the varying

fortunes of 'Ālamgīr in his interminable wars in the Deccan. Several obscure questions of historical geography have been discussed by Mr. Hodivala in recent *Numismatic Supplements to the Journal of the Asiatic Society of Bengal*.

Gold.

50.	<i>Obv.</i>	<i>Rev.</i>
	غازی شاہ	.....
	عالم گیر باد	میمنت
	.....	... دار الظفر
		۹
		... ضرب
	

N 5. Wt. 41. [Pl. XXIV. 11.]

Fitzwilliam Museum, Cambridge.

This is a quarter-mohur of *Dāru-ṣ-ṣafr* Bijāpūr mint; date cut.

The British Museum has eighty-four gold coins of Aurangzeb, of twenty-seven mints.

Silver.

The silver issues of Aurangzeb would be very monotonous but for the large number of mints, which now exceeds eighty. The British Museum Collection is quite representative, and contains specimens from many uncommon mints. Some outstanding rarities are Jinjī (Pl. XXIV. 9), Islām Bandar, Maḥmūd Bandar, Sāmbhar (Pl. XXIV. 12), and Ranthor.

51. Mr. H. Nelson Wright had a rupee of Ujjain mint, on the reverse of which is the unique formula چلوس مقدّس, "of the sacred regnal year".

GIGANTIC COINS.

"The massive medals in gold and silver which it was the pride of the Mughal emperors to stamp with their titles and store in their treasure houses, have been for centuries the theme of envy and admiration. The earliest mention of these phenomenal pieces in European literature occurs in the Voyages of Captain William Hawkins, who was profoundly impressed by the wealth and magnificence of the court of Jahāngīr." So begins Mr. Hodivala's instructive and fully-informed account of "Gigantic Coins"—*Mem.*, Paper IV. Abū Fazl's lengthy inventory of Akbar's coinage (*Āīn-i-Akbarī*) contains an elaborate description of a number of heavy pieces in gold rising in weight from about two tolas (two mohurs) to more than a hundred-and-one. A two-hundred mohur piece of Shāh Jahān is illustrated in *B.M.Cat.*, Pl. xxxiii. J. Gibbs published a hundred-mohur piece of Aurangzeb in *J.A.S.B.*, 1885. It is of a "square areas" type; mint *Dāru-l-khilāfat Shāhjahānābād*; date 1083, 15. A two-hundred rupee piece of Aurangzeb was described and illustrated by G. J. Kehr, Leipzig, 1725. Like the preceding coin it is of a "square areas" type; mint *Dāru-l-khilāfat Shāhjahānābād*; date 1084, 15. This ponderous piece weighs five Saxon pounds; it is in the Coin Cabinet, Gotha.

Both Edward Thomas and Sir Alexander Cunningham had theories about the object of striking gigantic coins. Mr. Hodivala shows that these conjectures receive no support from the indigenous chronicles. He has explored the Mughal chronicles of the post-Akbar period, and set out at length all the passages

which have any bearing on the subject; this is his conclusion: "These phenomenal issues were neither metallic substitutes or counterparts of our bank or currency notes of high denominations, nor *naẓrānah* medals. They were merely massive ingots of artistically stamped bullion which were hoarded as stores of value, and were occasionally given away to ambassadors, diplomatic agents, and other distinguished persons as complimentary gifts or souvenirs of the imperial favour and munificence."

*Nisārs.**Gold.*

52. Two gold *nisārs* of Chīnāpattan mint are described in the existing British Museum Catalogue—B.M.Cat., 715 and 721; they are of characteristic South Indian style and fabric. No other specimens are known.

53. Mr. H. Nelson Wright has a gold *niṣar* of Shāh-jahānābād mint; date 1072, 5.

<i>Obv.</i>	<i>Rev.</i>
غازی شاہ	جهان آباد
عالم کبر باد	دار الخلافه
نِسَار	ضرب
8	۱۰۷۲

A 65. Wt. 42.

H.N.W.

D d 2

Silver.

54.	<i>Obv.</i> غازى شاه عالم گير باد نثار 1118	<i>Rev.</i> مانوس ميمنت 8- سنه جلوس ضرب احمدنگر
	R .6. Wt. 43.5.	B.M.

A unique *niṣār* of Aḥmadnagar mint; date 1118, 5 x.

55.	<i>Obv.</i> بادشاه غازى عالم گير نثار سنه 4	<i>Rev.</i> اکبر آباد ضرب 1071 سنه
-----	---	--

An Akbarābād *niṣār* of date 1071, 4. The British Museum also has *niṣārs* of this type of dates 1076, 9; 1077, —.

56.	<i>Obv.</i> عالم گير شاه نثار باد 1098	<i>Rev.</i> اکبر آباد ضرب مستقر الخلافة 31
	R .65. Wt. 40.5. [Pl. XXIV. 10.]	B.M.

This is a later *niṣār* of Akbarābād with its epithet *Mustakīru-l-khīlāfat*, "the resting-place of the Khali-fate"; date 1098, 31.

57.	<i>Obv.</i>	<i>Rev.</i>
	عالم گیر ۱۴ نثار سنہ	اکیر اباد ضرب ۱۰۸۱ سنہ
	R 45. Wt. 20.	B.M.

This *niṣār* is B.M.Cat., 1077; its correct description is as above. The date is 1081, 14.

58.	<i>Obv.</i>	<i>Rev.</i>
	عالم گیر ۱۰۸۹ نثار سنہ	اکیر اباد ضرب ۲۲
	R 35. Wt. 10.5.	B.M.

A tiny *niṣār* equivalent to one-sixteenth of a rupee. In N.S., xxxii, *J.A.S.B.* 1918, Mr. H. R. Nevill described a *niṣār* of this weight of Jahāngīrnagar mint.

59.	<i>Obv.</i>	<i>Rev.</i>
	غازی شاه عالم گیر اباد نثار ۱۰	جهان اباد شاه دار الخلافه ضرب ۱۰۷۸
	R 55. Wt. 42.	B.M.

This is a *niṣār* of Shāhjahānābād mint; date 1078, 10. The British Museum has another specimen of date 11. Mr. Nelson Wright has dates 1074, 7; 1076, 8; 1077, 10; 1080, 12.

60.	<i>Obv.</i>	<i>Rev.</i>
	عالم گیر شاه ۱۱۱۳ نثار اباد	لاهور ب ضرب ۴۸
	R 55. Wt. 21. [Pl. XXIV. 14.]	B.M.

<i>Obv.</i>	<i>Rev.</i>
As above.	As above; date ٢١
R 4. Wt. 10.5.	B.M.

Two *niṣārs* of Lāhor mint; dates 45 and 26.

61. Mr. H. Nelson Wright has *niṣārs* of Akbarābād, 1080, 12 (wt. 87.5): Ilahābād: Itāwah, 1097, 29; Itāwā, 1112, 47.

LEGAL DRACHMS.

The "legal drachms" of Aurangzeb are rare, curious, and interesting. With the exception of one or two round pieces of Akbarābād mint, they are square in shape, bear on one side the words *درهم شرعى*, and on the other the name of the mint. These strange coins come from Akbarābād, Ilahābād, Patnah, *Shāhjahān-ābād*, Katak, Lāhor, Multān. All are very scarce. In my Panjab Museum Catalogue I surmised that they had some bearing on the technical aspects of dowry, and the assessment to *zakāt* (alms). Mr. Hodivala has recorded an admirable note on the subject—*N.S.*, xxviii, *J.A.S.B.*, 1917—and has shown conclusively that "these legal dirhams had their origin in, and were the direct result of, Aurangzeb's re-imposition of the *jizyā* Secondly, they appear to have been also connected with Aurangzeb's projected reform in regard to the reduction of the extravagant amounts which had then come to be demanded as *mahr*". Farrukhsiyar was the only emperor who revived the issue of these pieces.

Mr. Hodivala has a quotation from the *Mirāt-i-Aḥmadī* to the effect that twelve dirhams are equivalent to three tolāhs, one māshā, and three-fourths and one-twentieth of a māshā of silver; this makes the

gross weight of the dirham 47·25 grains. A perfect specimen in the British Museum, which is illustrated in Marsden's *Numismata Orientalia*, weighs about 49 grains.

62.	<i>Obv.</i>	<i>Rev.</i>
	ش ر ع	کتک
	درهم	ب
		۲۹

Square. R .7. Wt. 49·3. [Pl. XXIV. 7.] B.M.

This fine coin came from the Marsden collection. It is a legal drachm of the twenty-ninth year from Katak mint.

The British Museum now possesses ten legal drachms :

Akbarābād; 1093, 26 (round).

Akbarābād; date doubtful (round). Wt. 47. [Pl. XXIV. 8.]

Patnah; 24 (two specimens).

Katak; 29.

Katak; 30.

Lahor; 1092, 24.

Multān; 1091.

Multān; 1093.

Multān; 1094.

Mr. H. Nelson Wright has square legal drachms of Akbarābād, 1091, 24; Ilahābād, 1105, 37; *Shāhjahān-ābād*.

Copper.

From about Aurangzeb's seventh regnal year the weight standard of the *dām* is reduced by one-third—*The Weights of Aurangzeb's Dāms*, Hodivala, N.S., xxviii (*J.A.S.B.*, 1917). The full weight of the Akbari *dām* was c. 320 grains, so the new weight standard

is c. 214 grains. Twenty-five specimens in the Punjab Museum range from 190 to 217 grains. The successors of Aurangzeb continued the reduced standard, but pieces of the full *dām* size and weight sometimes appeared.

The British Museum now possesses 130 copper coins of Aurangzeb from twenty mints. I describe one or two interesting specimens.

63.	<i>Obv.</i>	<i>Rev.</i>	
	سنہ	بندر	
	مبارک	۳۸	
	۱۱۱۵	ضرب بتن	
	جلوس	مچھلی	
	Æ .85. Wt. 210.		B.M.

This is a copper coin of Machhlipattan Bandar mint struck in the auspicious regnal year 48, Hijrī year 1115. The word بندر "port" is clear, and I have no doubt that all copper coins struck at this mint (Masulipatam) should be attributed to Machhlipattan with its epithet Bandar.

64.	<i>Obv.</i>	<i>Rev.</i>	
	عالم گیر	مرشداناد	
	شہنشاہ	ضرب	
	فلوس باد	۴۹	
		سنہ	
	Æ .9. Wt. 212 (rubbed).		B.M.

A *fulūs* of Murshidābād mint; date 49.

65.	<i>Obv.</i>	<i>Rev.</i>	
	.....	۱۳	
	سنہ	سنہ	
	مبارک	[م.] عظم آباد	
	جلوس	ضرب	
	Æ .8. Wt. 214.		B.M.

A copper coin of Mu'azzamābād mint; date 12. The arrangement of the mint name differs from that of 'Azimābād; also the name 'Azimābād (Patnah) does not appear on the coinage till Aurangzeb's fiftieth year.

A'ZAM SHĀH.

Prince A'zam Shāh was the eldest surviving son of Aurangzeb, and disputed the succession with his brothers, prince Mu'azzam (Shāh 'Ālam Bahādur) and prince Kām Bakhsh. Both A'zam Shāh and Kām Bakhsh assumed imperial honours, and struck coin. A'zam was defeated and slain in the battle of Jājau Serai, near Āgrah, in June, A. D. 1707, after a reign of three months—*Mem.*, p. 277. The coins are of first regnal year; dates A. H. 1118 and 1119. I give a list of all known mints and metals. This claimant is well represented in the British Museum.

Ahmadābād. *R* 1119.

Ahmadnagar. *A* 1118. *R* 1118.

Ujain. *R*

Burhānpūr. *A* 1119. *R* 1118 and 1119.

Haidarābād *A* 1119. *R* 1119.

Khujistah Bunyād (Aurangābād) *A* 1118. *R* 1119.

Sūrat. *A* 1119. *R* 1119.

'Ālamgīrpūr (Bhilsah). *R*

All coins of A'zam are scarce; gold is even rarer than silver. His mint towns are in Gujarat and Central India; one (Haidarābād) in the Deccan. It is surprising to find that A'zam struck coin at Haidarābād, as that city was the stronghold of his brother and rival Kām Bakhsh, who issued coin there in 1119 and 1120. Money was also minted there in 1119 in the name of Shāh 'Ālam Bahādur. The three parties must have been fairly evenly balanced in that locality: the de-

feat and death of Kām Bak^hsh in 1120 gave complete sovereignty to Shāh 'Ālam Bahādur.

66.	<i>Obv.</i>	<i>Rev.</i>
	ممالك اعظم شاه شاه	جلوس اشرف ف
	1119 بدولت وجاه باد سکه	احد دار الجهاد سنه ضرب حیدرآباد
	زد در جهان	

N. [Pl. XXIV. 13.]

A.N.S.

The couplet is:

سکه زد در جهان بدولت وجاه
بادشاه ممالك اعظم شاه

Struck coin in the world with might and majesty,
Suzerain of the realms, A'zam Shāh.

This is a gold coin of *Dāru-l-jihād* Haidarābād—date 1119, 1, in the cabinet of the American Numismatic Society. The reverse formula is peculiar to A'zam Shāh, جلوس اشرف, "in the most noble regnal year". There is also at New York a mohur of Sūrat mint of the normal type.

67.	<i>Obv.</i>	<i>Rev.</i>
	ممالك اعظم شاه شاه	جلوس افشان شاه
	1119 بدولت وجاه باد سکه	حیدرآباد ضرب [دار الجهاد]
	زد در جهان	

R. [Pl. XXIV. 15.]

Berlin.

This Haidarābād rupee at Berlin presents quite

a novel reverse formula. In place of *چلوس اشرف* I read *چلوس روشن افشان*, "in the resplendent (light-scattering) regnal year".

SHĀH 'ĀLAM BAHĀDUR.

We are told by Khāfī Khān that by the express command of Shāh 'Ālam Bahādur the legends on the coins were to be in prose, not verse—*Mem.*, p. 369. The coinage shows that these orders were carried out, but a few rare pieces of the first year exhibit rhyming couplets.

Mint.	Metal.	Reference.
'Azīmābād and Murshidābād	₹	P.M.Cat., pp. lxii, and 284.
Akbarābād	₹ and ₹	P.M.Cat., p. 276.
Tattah	₹	P.M.Cat., p. 279.
Multān	₹	P.M.Cat., p. cix.

There are four different couplets, two of which contain the emperor's birth name Mu'azzam Shāh. He is termed the second 'Ālamgīr, the second Shāh Jahān, and is likened to the Ṣāhib Qirānī (his ancestor Tamerlane).

An item in the White King Sale Catalogue, Part III, Amsterdam, 1905, No. 3960, is a rupee of Itāwah (*sic*) mint with a ṣāhib qirān-i-ṣānī couplet. I have no further particulars of this interesting piece.

68.	<i>Obv.</i>	<i>Rev.</i>
	محمد	مانوس
	عالم بادشاه	میمنت
	ش ۱۱۱۹ هـ	احد
	برمهہر و ماہ حامی دین کہ	سنہ چلوس
	... زد در هفت کشور	سرب
		ملتان
	₹ 9. Wt. 176.5. [Pl. XXIV. 16.]	B.M.

I illustrate the unique couplet rupee of Multān mint.
The words as they stand above make the distich:

سکه زد در حقش کشور بر مهر و ماه
حامی دین محمد شاه عالم بادشاه

Struck coin in the Seven Climes on the sun and moon (gold
and silver),
The Defender of the Faith of Muhammad, the emperor
Shāh 'Ālam.

It anticipates in a striking way the well-known
coin couplet of Shāh 'Ālam II—P.M.Cat., p. 379—in
fact, the second line is common to both. But on this
coin there is an additional word at the beginning of
the bottom line, and one at the end of the middle line
which I cannot read. The first may be ظل, and the
second ۱, ۲.

There can be no doubt that these couplet coins are
money of an unauthorized and exceptional character
issued by local adherents as soon as Mu'azzam was
proclaimed. The new emperor was by no means secure
till he had defeated his rival A'zzam, and it was
probably after that event that he felt strong enough
to issue definite orders about the currency—*Mem.*,
pp. 322, 323.

69. The normal non-couplet rupees of Tattah mint
have both dates on the reverse side thus:

۱۱۱۹
مانوس
میمنت
احد
سده جلوس
ضرب
تته

Other examples in the British Museum are of dates 1120, 2; 1121, 3.

70.	<i>Obv.</i>	<i>Rev.</i>
	شاه عالم	۲
	ش ۱۱۲۰	سنه
	باد سکه	نرب
		مجهلی پتن
	R 45 [Pl. XXIV. 18.]	A.N.S.

This is a quarter-rupee of mint Machhlipattan (Masulipatam), date 1120, 2, at New York.

71. Copper coins of Shāh 'Ālam Bahādur are rare. The British Museum has seven of six mints. Two pieces of Aḥmadābād and Sūrāt mints are of the full *dām* weight.

'AZĪMU-SH-SHĀN.

The death of Shāh 'Ālam Bahādur was the signal for a mortal conflict between his four sons; his successor was the sole survivor Jahāndār, who held the throne less than a twelvemonth. The elder son 'Azīmu-sh-shān had been governor of Bengal during the last decade of the reign of his grandfather Aurangzeb, and was succeeded there by his second son Farrukhsiyar. This young prince passed some years at Dacca (Jahāngīrnagar), the capital of the Bengal province, but in the reign of 'Ālam Bahādur he moved to Murshidābād, and subsequently to Rājmaḥal (Akbar-nagar), each time decreasing the distance between himself and the capital. 'Azīm, anticipating a struggle for the throne, summoned Farrukhsiyar to return to

court, and the latter was on the march and not far from Patnah (which had been named 'Azīmābād after his father) when he heard of the death of Shāh 'Ālam Bahādur. Thereupon we are told that without waiting for further information Farrukhsiyar proclaimed his father's accession, and caused coin to be struck in 'Azīm's name. Only a fortnight later the news came of 'Azīm's defeat and death. The prince at first contemplated suicide, but was incited to contest the issue: while still at Patnah he proclaimed his accession and issued coin. In the upshot Jahāndār was defeated, and put out of the way shortly afterwards. [W. Irvine, "The Later Mughals", *J.A.S.B.* 1896.]

In the *British Museum Catalogue* (p. xxxv) it is stated that "no coins have hitherto been published with the name of 'Azīmu-sh-shān", yet a rupee bearing the name Shāh 'Azīm was included without comment amongst the issues of Farrukhsiyar—*B.M.Cat.*, 903. I republished this piece in a paper entitled "A Coin of 'Azīmu-sh-shān"—*N.S.*, xvii, *J.A.S.B.*, 1912. The last line of the couplet is missing, but I surmised that the legend was something like this:

در جهان زد سکه بفتح و ظفر
بادشاه عظیم دین پرور

Struck coin in the world with victory and triumph,
The emperor 'Azīm, cherisher of the Faith.

72. There is another specimen in the Kaiser Friedrich Museum, Berlin; the bottom line is visible, and confirms this anticipation [Pl. XXIV. 17]. The mint is Jahāngīrnagar, and the date 1124, 1. I have no doubt that a piece of 'Azīmābād itself will be found.

JAHĀNDĀR.

73. The silver *niṣār* of Jahāndār Shāh in the British Museum—B.M.Cat., 889—still remains unique.

<i>Obv.</i>	<i>Rev.</i>
۱۱۲۴	[احد]
بادشاه غاز	سنه
جهاندار شاه	جهان آباد
نِسَار	دار الخلافة
	ضرب

R .6. Wt. 45. [Pl. XXIV. 21.] B.M.

The mint is *Dāru-l-khilāfat* Shāhjahānābād; date 1124, 1.

FARRUKHSIYAR.

The gold and silver issues of Farrukhsiyar exhibit his usual coin couplet. I give two exceptions.

74. <i>Obv.</i>	<i>Rev.</i>
قران فرخ سیر	مانوس
حب	میمنت
بر سیم و زر ثالث صا	احد
س	جاوس سنه
زد از فضل حق	ضرب
۱۱۲۵	تسه

R .8. Wt. 173. [Pl. XXIV. 19.] B.M.

This is a rupee of Tattah mint, date 1125, 1. The obverse legend is the normal coin couplet, but the words بادشاه بحر و بر are replaced by the unique title ثالث صاحب قران, "third Lord of the Conjunctions". Three specimens are known.

75.	<i>Obv.</i> بادشاه غاز 1125 C سکه فرخ سير	<i>Rev.</i> مانوس ميمنت احد سنه جلوس ضرب ملتان
R .8. Wt. 174.		B.M.

A rupee of Multān mint, date 1125, 1, of a non-couplet type. Two specimens known, both in the British Museum.

Niṣārs.

Niṣārs of Farrukhshiyar are very scarce. I am able to describe two types in silver.

76.	<i>Obv.</i> غازي شاه فرخ سير باد نشار	<i>Rev.</i> جهان اباد شاه دار الخلافة 5 ضرب
R .65. Wt. 44. [Pl. XXIV. 20.]		B.M.

A quarter-rupee size *niṣār* of Shāhjahānābād mint, date 5.

77.	<i>Obv.</i> محمد غازي شاه فرخ سير باد نشار ٦	<i>Rev.</i> جهان اباد شاه دار الخلافة ضرب 1129
R .5. Wt. 42.5.		H.N.W.

This *niṣār* differs slightly from the foregoing.

Mr. H. Nelson Wright has this type in all three sizes—11, 22, and 42·5 grains—corresponding with the sixteenth, eighth, and quarter rupee.

Two silver pieces with fragmentary inscriptions were described and illustrated by Mr. L. (later Sir Lucas) White King as a one-eighth rupee (*Shāhjahān-ābād* mint), and a one-sixteenth rupee (*Akbarābād*, really *Ilahābād* mint) respectively—"Novelties in *Mughal Coins*," *Num. Chron.*, 1896—but may well be *nīsārs*.

Copper coins of *Farrukhsiyar*, especially those with legible mints, are rare; the British Museum possesses twenty-one of eleven different mints. One of these pieces, mint illegible, is of the full *dām* weight.

Legal drachms.

There is a legal drachm of *Farrukhsiyar* in the Lahore Museum—P.M.Cat., 2271—of mint *Lāhor* and date 1129, 6. "We have the testimony of *Khāfi Khān* to the effect that in that very year an order was passed for levying the *Jizyā* strictly from the Hindus, and that this was done at the instance of '*Ināyatullāh Khān*, who had been *Aurangzeb's* own *Munshi*, and now became *Financial Minister*" (*Hodivala, N.S. xxviii, J.A.S.B., 1917*).

I illustrate another specimen at New York.

78.	<i>Obv.</i>	<i>Rev.</i>
	ش ع ۱۱۲۹	لاهور
	درهم	ب
		صر ۲

Square *R* .55. Wt. 45. [Pl. XXIV. 22.] A.N.S.

RAFĪ' U-D-DARAJĀT.

79. <i>Obv.</i>	<i>Rev.</i>
رفيع الدرجات شاه	مانوس
بركات هنشه دادگر	ميمنت
س ۱۱۳۱ كء	احد
زد بهند با هزاران	سنه جاوس
	ضرب
	جهانگیرنگر

Al. 8. Wt. 176. [Pl. XXV. 1.] Berlin.

This is a rupee in the Kaiser Friedrich Museum of Jahāngirnagar mint. As on the rupees of Murshidābād, the usual 'alāmat, بحر و بر, شاهنشہ نحر و بر, "king of kings of sea and land," is replaced by

شاهنشہ دادگر "the just king of kings".

RAFĪ' U-D-DAULAH.

The first discovered couplet coin of Rafī' u-d-daulah, conventionally termed Shāh Jahān II, was published by me in *N.S.*, xv., *J.A.S.B.*, 1910. It was a rupee of Tattah mint, and the last line of the obverse legend was off the coin. I surmised that the complete couplet was:

با زر بر سکه زد امن و امان
صاحب قران ثانی شاه جهان

Struck coin on gold with safety and security,
The *Shāhīkīrān-i-Sāmī*, Shah Jahān.

I have since acquired three other specimens, and these show the bottom line to be در جهان زد. So the correct couplet is:

در جهان زد سکه با امن و امان
صاحب قران ثانی شاه جهان

There is a specimen of this Tattah rupee in the cabinet of the American Numismatic Society, New York.

80. This is a unique gold piece of the couplet type in the Kaiser Friedrich Museum, Berlin (Guthrie Collection); mint Ilahābād, date 1131, 1.

<i>Obv.</i>	<i>Rev.</i>
جهان شاه	مانوس میمنت
[1] ۱۱۳ صاحب قران نه	احد سنه جلوس
با امن و امان ثانی	ضرب الہ اباد
در جهان زد	

N -75. Wt. 168. [Pl. XXV. 2.] Berlin.

80 a. <i>Obv.</i>	<i>Rev.</i>
جهان صاحبقران شاه	مانوس میمنت
با امن و امان ثانی	احد سنه جلوس
سکه	ضرب
در جهان زد	کابل ۱۱۳۱
<i>R.</i>	Christ Church Library, Oxford.

This is a couplet rupee of Shāh Jahān II of Kābul mint. The mint name is not attended by the usual epithet *Daru-l-mulk*; the couplet is exhibited in full; the date is 1131, 1.

81. A unique couplet rupee of Peshāwar mint in the British Museum; formerly in my cabinet.

R -85. Wt. 174. [Pl. XXV. 3.] B.M.

82.	<i>Obv.</i>	<i>Rev.</i>
	شاه جهان شاه	احد
	فلوس باد ۳۱ . . .	سنه جلوس
		ضرب
		[سورت]
	Æ .7. Wt. 214.	B.M.

A unique copper coin of Shāh Jahān II, Sūrat mint; date 1131, 1.

MUHAMMAD SHĀH.

83.	<i>Obv.</i>	<i>Rev.</i>
	محمد شاه بادشاه غازي	الزمان
	صاحب قران	حب
		الا امر ما ۱۲
		ب
		ضرب سند
	N .55. Wt. 85. [Pl. XXV. 6.]	B.M.

This is a half-mohur of a unique type; mint Sind, date 12—see *N.S.*, xv, *J.A.S.B.*, 1910; *P.M.Cat.*, 2324. I am not satisfied with my reading of the reverse legend, though I cannot suggest anything better. It presumably means "Struck by order of the Lord of the Age".

84.	<i>Obv.</i>	<i>Rev.</i>
	Arranged in <i>tughra</i>	In small triple circle
	سکه مبارک بادشاه غازي محمد شاه	جلوس سنه ۲۴
	110 ^c	In four foliated marginal areas:
		Bottom میمنت
		Left مانوس
		Top ضرب
		Right کشمیر
	N .8. Wt. 168. [Pl. XXV. 5.]	B.M.

This is gold piece B.M.Cat. 973; mint Kashmīr, date 1154, 24. The normal coin legends of Muḥammad Shāh are arranged in an unusual and striking manner. Two other specimens are in the Pandit Ratan Narain Collection, Museum of the American Numismatic Society, one like the above, and the other of date 1151, 12.

85. <i>Obv.</i>	<i>Rev.</i>
ح - ۱۱۶ محمد شاه	جلوس مانوس
بادشاه غاز	ميمعت
نصير	احد
ابو الفتح الدين	سنه دار السور
ك	ضرب
سکه مبار	برهانپور

R. 9. Wt. 174. [Pl. XXV. 4.] B.M.

This handsome coin formerly belonged to Sir Thomas Denneby. It shows that the first issue of Muḥammad Shāh's silver money from *Dāru-s-surūr* Burhānpur differs from every other coin of that emperor in exhibiting his *laqab* Naṣiru-d-dīn, and his patronymic Abū'l-Faṭḥ. An incomplete specimen of this type is discussed in *N.S.*, xii, *J.A.S.B.*, 1909, p. 384, and *Mem.*, p. 308. In the latter reference Mr. Hodivala shows that the earlier *kunyat* ابو الفتح was altered on the Nauroz festival of A. H. 1134 to ابو المظفر.

The *laqab* on the above coin is clearly نصير الدين. This also must have been altered after the first year to ناصر الدين, but before the festival that saw the change of *kunyat*. The emperor's seal of year 1133, 3 already bears the *laqab* ناصر الدين—*Mem.*, p. 308.

86.	<i>Obv.</i>	<i>Rev.</i>
	اله	مانوس
	بادشاه	ميمنت
	جهان محمد شاه	۲۲
	[زد] سکه	سنه جلوس
	در ز فضل ۱۱۸۲	ضرب
	جهان	بهکهر
	R 75. Wt. 168. [Pl. XXV. 7.] B.M.	

زد سکه در جهان ز فضل اله
بادشاه جهان محمد شاه

Struck coin in the world by the grace of God,
The emperor of the world, Muḥammad Shāh.

This I believe is the full and correct version of the very rare Bhakhar couplet. Progressive stages of elucidation appear at P.M. Cat., 2407 a (one coin known); L.M.Cat., vol. i, p. 32 (two coins known); the above (three coins known).

87. I illustrate the obverse of the very rare Lāhor rupee—P.M.Cat., 2554—on which Muḥammad Shāh is called Muḥammad Shāh Bahādur [Pl. XXV. 8]. The epithet بهادر is almost invariably found accompanying the emperor's name on the gold and silver coins of Muḥammad Shāh's successor Aḥmad Shāh, who is often termed Aḥmad Shāh Bahādur as a convenient way of distinguishing him from other Aḥmad Shāhs, for example Aḥmad Shāh Durrāni. Mr. Hodivala has shown that Bahādur was an old and highly-prized Mongol title borne only by renowned heroes and princes. In Mughal times the title was sometimes conferred as a reward for exceptional gallantry in the field. Shāh Jahān bestowed it upon his son Aurangzeb

because of the latter's intrepid behaviour in an encounter with an enraged elephant—*Mem.*, Paper XVII. "The Title Bahādur".

88.	<i>Obv.</i>	<i>Rev.</i>	
	محمد شاه	بهکھر	
	فلس ۱۱۴۶	۱۶ ضرب	
	Æ -75. Wt. 275.	B.M.	

There are several well-struck copper coins of Muḥammad Shāh of Bhakhar mint in the British Museum; dates are: 1138, 7; 1145, 15; 1146, 16; 1147, 17; 1160, 30. The weights range from 268 to 278 grains. It would appear that the copper issues of Muḥammad Shāh were struck on two weight standards. Aurangzeb's standard of c. 214 grains was in vogue at the capital Shāhjahānābād, and other mints such as Aḥmadābād, Multān, and Machhlipattan Bandar. A heavier standard, actual specimens varying from 268 to 298 grains, obtained at such mints as Bhakhar, Elichpūr, Kashmīr.

The British Museum has fifty-two copper coins of Muḥammad Shāh of ten mints.

AḤMAD SHĀH.

89.	<i>Obv.</i>	<i>Rev.</i>	
	الله احمد شاه	مانوس ميمنت	
	شاه عالم پناه بفضل ۱۱۶۶	۶ سنه جلوس	
	سکه برزر زده	ب ضرب کشمیر	
	R -9. Wt. 173. [Pl. XXV. 9.]	B.M.	

I illustrate the scarce couplet rupee of Aḥmad Shāh of Kashmīr mint; date 1166, 6. Cf. P.M.Cat., 2706. The couplet is:

بر زر زده سکه بغضل اله
شاه عالم پناه احمد شاه

Struck coin on gold by grace of God,
King Aḥmad Shāh, Asylum of the World.

90. Aḥmad Shāh's coins are well represented in the British Museum; I illustrate the reverse side of an excellent specimen in silver of mint *Dāru-l-barakāt* Nāgor, date 1163, 4 [Pl. XXV. 11]. I may also mention rupees of Tattah, first year, and of Jodhpūr (*Baldat* Jodhpūr, fourth year; *Dāru-l-manṣūr* Jodhpūr, fifth year).

91. *Obv.* *Rev.*

احمد شاه
فلوس سکه

.....
سنه
كشمير
ب
عر

Æ .7. Wt. 70.3. [Pl. XXV. 12.] B.M.

A Kashmīr *fulūs* of Aḥmad Shāh; date illegible.

'ĀLAMGĪR II.

92. *Obv.* *Rev.*

عالم گير
ش ۱۱۷۰
شاه جهان باد
زر چو مهر منير
ياقت رونق از

الله ملكه و سلطانه
خلد
دار الخلافة شاه جهان اباد
فرب
چلوس ميعنت مانوس
۴
سنه

A 1.0. Wt. 170. [Pl. XXV. 10.] B.M.

سکه زر یافت رونق چو مهر منیر
از نام شاه جهان بادشاه عالم گیر

Coin of gold received splendour like the shining sun
From the name of the King of the World, the emperor
'Ālamgr.

This is a gold coin of 'Ālamgīr II; mint *Shāhjahān-ābād*; date 1170, 4. The couplet was first published by me from a silver coin—*N.S.*, xv, *J.A.S.B.*, 1910. I only know of these two specimens.

93. This gold coin of *Itāwā* mint bears the *tābān mihr 'wa māh* couplet—*P.M.Cat.*, 2790; date 1170, 5.

A .8. Wt. 170. [Pl. XXV. 16.] B.M.

94. *Obv.*

عالم گیر
جهان
قران بادشاه
حب
مهر منیر ثانی صا
سکه

Rev.

.
۱۱۷- جلوس مانوس
میمنت
دل شادا باد
ب
صر

R .85. Wt. 174. [Pl. XXV. 13.] B.M.

This is a rupee of *Dilshādābād* mint of imperial style; date 117 x. The couplet is new, and seems to be on these lines:

سکه مبارک زد بر زر چو مهر منیر
ثانی صاحب قران بادشاه جهان عالم گیر

Local coins are known of this mint in silver and copper of *Shāh 'Ālam II*. Prinsep referred them to *Nārāyanpet*, a town in the *Maḥbūbnagar* District, *Ḥaidarābād* State. Mr. John Allan has kindly referred me to *F. K. Viccajee's Notes on the Hand Minting of*

Coins of India. A possible alternative location of Dilshādābād is Gopālpēt. "The Rajahs of the Samasthans (fiefs) of . . . Gopalpett, Narayanpett, . . . had mints of their own, and manufactured lacs of coins, each of which was called after the place where it was minted," *op. cit.*, p. 5.

95.	<i>Obv.</i>	<i>Rev.</i>	
In square area, the Kalimah, and	1168	In square area:	
Marginal inscriptions:		محمد عالم گيرح	
Right	عدل عمر	عزيز الدين بادشاه غاز	
Bottom	حلم عثمان	سکه مبار ابو العدل	
Left	علم على	Marginal legends:	
Top	بالصدق ابو بكر	Left	جلوس ميمنت
		Top	مانوس ضرب
		Right	مرشداباد
		Bottom	سنة

R. 85. Wt. 175. [Pl. XXV. 14.] Berlin.

In 1168, second regnal year, the interesting type illustrated at B.M.Cat., 1060, P.M.Cat., 2733, was issued from Shāhjahānābād mint. 'Ālamgīr II is the sole emperor after Shāh Jahān to introduce the Kalimah on to the coinage, but only at Shāhjahānābād, and, as shown by the above coin in the Kaiser Friedrich Museum, at Murshidābād, in 1168, 2. This Berlin piece is unique.

Another feature of interest is the legend حلم عثمان, " (by the) meekness of 'Uṣmān". The word *hilm* does not occur elsewhere on the Mughal currency.

95 a. A rupee of 'Ālamgīr II of Alinagar mint; fourth regnal year. The mint name علی نگر is perfectly clear, and is followed by what may be کلکتہ, Kalkattah (Calcutta).

Christ Church Library, Oxford.

SHĀH JAHĀN III.

96.	<i>Obv.</i>	<i>Rev.</i>
	شاه جهان ح	جلوس
	1174 بادشاه غاز	میمنت
	ک	احد
	سکه مبار	سنه مانوس
		ضرب
		حسن اباد

AR .85. Wt. 171. . B.M.

A rupee of Shāh Jahān III of Ḥasanābād mint; date 1174, 1.

SHĀH 'ĀLAM II.

97. I illustrate the reverse of a rupee struck in the name of Shāh 'Ālam II at *Dāru-z-zāfir* Zebābād in the forty-fifth year of the reign. On the obverse is the صاحب قرانی couplet—P.M.Cat., 2861 [Pl. XXV. 15]. This issue was struck at Sardhanah in the Meerut District in the year of Lord Lake's victory of Delhi by the Begam Somru, Zebu-n-nisā Begam. There is an interesting account of this notable woman in Sleeman's *Rambles and Recollections of an Indian Official*.

BEDĀR BAKHT.

98.	<i>Obv.</i>	<i>Rev.</i>
	بیدار شاہ	احمدآباد
	فلوس	ب
		سر احد
		سنہ
		Sword to l. of سر.

.E .8. Wt. 280. Indian Museum, Calcutta.

This is the only known copper coin of Bedār Bakht, mint Aḥmadābād, first year. It belonged to Mr. H. Nelson Wright.

MUḤAMMAD AKBAR as claimant.

99.	<i>Obv.</i>	<i>Rev.</i>
	الہ محمد اکبر	دار الخلافہ
	شاہ	شاہ جہان آباد
	سکہ زد در جہان	سرب
	۱۲۰۲ به فضل	جلوس مہمنت مانوس
	حامی دین	احد
		سنہ

.R .8. Wt. 173. [Pl. XXV. 17.] B.M.

The couplet is:

زد سکہ در جہان بہ فضل الہ
حامی دین محمد اکبر شاہ

The mint is Shāhjahānābād; date 1202, 1. This version of the couplet is intended to supersede that given in *N.S.*, xxxvi, *J.A.S.B.*, 1922, p. 6.

The discovery of another claimant to the Mughal throne who struck coin is described in a joint paper

by Mr. Hodivala and myself—*N.S.*, xxxvi, *J.A.S.B.*, 1923. Numismatic evidence confirms the statement of the Delhi correspondent of the *Calcutta Gazette*, dated December 4, 1788, announcing "the continuance of Golaum Kadir Cawn accompanied by his new elected king Mirza Akbar Shaw, his late king Bedar Shaw, and several other princes, at a place called Meerut, about four days' march from his capital Saharanpur", *op. cit.*, p. 8. There is no evidence in indigenous chronicles, but "nothing could be more explicit or more germane to the matter than this simultaneous mention of both puppets with their individual names and the qualifying epithets new elected and late". It is as well to mention that this Muhammad Akbar is not a stranger to the Mughal dynastic list. He acceded in the regular way as Akbar II in the year A. H. 1221.

I was able to describe three coins of the newly discovered claimant:

(1) Rupee of *Dāru-s-surūr* Sahāranpūr, year 1203, 1; couplet as above. Duplicate at Lahore—P.M.Cat. 3277.

(2) *Fulūs* of *Shāhjahānābād* mint, first year. Hijri date not quite certain, but probably 1203.

(3) *Fulūs* of *Aḥmadābād* mint, date 1203, 1.

I remarked that "rupees of *Aḥmadābād* and *Shāhjahānābād* may come to light". The *Shāhjahānābād* rupee turned up in the year the paper was published, and is now described above. Why both puppet kings *Bedār Baḳht* and *Akbar Shāh* (as claimant) should have struck coin at the distant capital of Gujerat can only be conjectured. *Aḥmadābād* in its prime was a magnificent city; as late as the time of *Muḥammad Shāh* its prestige was such that *Nādir Shāh* had money

struck there, though the Persian conqueror never came near the place. For forty years before the time of *Bedār Bakht* coin of local style had been issued at *Aḥmadābād* by the *Mahrattas*, and then by the British. This series was interrupted for some brief period in A. H. 1202-3 by money of the imperial *Shāhjahānābād* type issued in the names of *Shāh 'Ālam II*, *Bedār Bakht*, and *Akbar Shāh* as claimant.

Shāh 'Ālam II.

N A. H. 1202 (P. M. Cat., 2858).

R 1202; of the gold type (B.M.).

Æ 1202. See below.

100.	<i>Obv.</i>	<i>Rev.</i>
	عالم شاه	احمدآباد
	ش ۱۲۰۲	ب
	فلوس	۲۹
		سنة

Sword to l. of *ضر*.

Æ -9. Wt. 284.

B.M.

Bedār Bakht.

N 1202 (White King Sale Catalogue, 4183): 1203 (B.M.).

R 1203 (I. M. Cat., 2499).

Æ No Hijri date, first year (H. N. Wright).

Akbar Shāh as claimant.

Æ 1203.

These issues exhibit a strong family resemblance, and those of *Shāh 'Ālam II* probably come within the period of *Ghulām Kādir*'s dominance.

The king-maker *Ghulām Kādir*, the "unspeakable Rohilla", soon became dissatisfied with his nominee *Bedār Bakht*, whose favourite amusement is said to

have been the flying of kites in the streets of the capital. Mr. Hodivala has shown that the idea of raising Muḥammad Akbar to the throne had occurred to Ghulām Qādir only a few days after the installation of the new titular Bedār Bakht—*op. cit.*, p. n 9. According to the *'Ibratnāmah*, Bedār Bakht acceded on the 27th Shawwāl (tenth month), A. H. 1202 = July 31, 1788. The discovery of a rupee of Akbar Shāh struck at Shāhjahānābād in this same Hijrī year 1202 shows that Bedār Bakht was deposed before October 2, 1788 (1 Muḥarram, A. H. 1203). His Aḥmadābād issues of A. H. 1203 must be posthumous. On October 11, 1788, Ghulām Qādir finally departed from Delhi, "leaving the Salimgarh by a sally-port, and sending before him the titular emperor and all the chief members of the royal family"—*op. cit.*, p. n 10.

101.	<i>Obv.</i>	<i>Rev.</i>
	اکبر شامع	دار السرور سہارنپور
	فلوس	ضرب
		احد
		سنہ

Æ .8. Wt. 140.1.

B.M.

This is the copper coin of Akbar Shāh as claimant struck at *Dāru-s-surūr* Sahāranpūr. The Hijrī date is at the top of the obverse side, but is illegible. There is a reference to "Seharunpore, the capital of the late Gholaum Cadir Khan" on p. 46 of Francklin's *Military Memoirs of Mr. George Thomas*, Calcutta, 1803. Both silver and copper issues bear the mark ل on the reverse side; the rupee is illustrated at P.M.Cat., Pl. xx, 3277.

BAHĀDUR SHĀH II.

Authentic pieces of Bahādur Shāh II struck in all that remained of the Mughal empire, the palace-fort at Delhi, are very scarce. There are Shāhjahanābād rupees of the following dates: 1254, 2 (B.M.); 1255, 3 (I.M.Cat., 2513); 1256, 4 (B.M.); 1257, 5 (B.M.); 1258, 6 (B.M.).

The last Mughal emperor began to reign in 1253, and was deposed in A. H. 1274 = A. D. 1857; the known dates of this issue are confined to early years of the reign.

R. B. WHITEHEAD.

XVIII.

THE COINAGE OF EDWARD III FROM 1351.

[SEE PLATES I (XV)-V (XIX).]

Introductory.

THE earliest coinage of Edward III, that of 1327 to 1331, has been described by Mr. Earle Fox and Mr. Shirley Fox in *Brit. Num. Journ.*, vol. x. These coins are distinguished from the coins of Edward II only by the use of the Lombardic Ω in place of the Roman N and, in the case of ecclesiastical mints, by special marks such as the Durham crown, the York quatrefoil. Whether the extra pellets on York and Canterbury pennies (see *Brit. Num. Journ.*, x, pp.105 ff.) have an ecclesiastical or more general significance is uncertain. Bury St. Edmunds shows no special mark, and can only be identified by its Lombardic Ω and Ω . The mint accounts for pennies issued between 1327 and 1331 show:—

London.		Canterbury.	
1 Oct., 1326,		30 Sept., 1328,	
to		to	
4 Feb., 1327	£60	16 Feb., 1329	£48 4 1
16 Feb., 1329,		19 Feb., 1329,	
to		to	
29 Sept., 1329	£387	29 Sept., 1329	£94 14 5½
30 Sept., 1329,		19 Jan., 1331,	
to		to	
29 Sept., 1330	£60	29 Sept., 1331	£680

Halfpence and farthings were issued at London in large numbers during these years (see *Num. Chron.*, 1913, pp. 214-215), but those which have come down to us are a mere handful as compared with the amounts coined. The types, such as they are, at present preclude accurate classification. There are no accounts given for the ecclesiastical mints.

In the period 1331-1344 no pennies were struck, the coinage being limited to halfpence and farthings, as appears from the mint accounts of these years. In 1344 the coinage of pennies was again started, and this denomination was produced in large numbers during the whole of that year and until June 1345, £54,414 4s. 4d. being the amount given in the mint accounts. The Canterbury mint, after having been closed from 1331, was opened again in September 1344, and from then till June 1345, produced £1,716 17s. 1d. in pence. It was during this period that York, Durham, and Reading were reopened, and these mints produced pennies precisely like those of London and Canterbury, except of course for the mint name and some special symbols—the York quatrefoil, an occasional crozier for Durham, an escallop shell for Reading. It is unfortunate that we have no accounts referring to these three mints. From this time until 1348 London produced a small quantity of pennies annually and the Canterbury mint contributed a still smaller quantity until it finally closed in December, 1346. The coins issued during this period are the so-called florin-type pennies.

Before proceeding to the period which is the subject of our present inquiry, namely 1351 and the later years, it is perhaps desirable to examine the form of

the contracts under which the coinage was made. These indentures are agreements between the king and the mint-masters, by which the latter undertook to make certain coins of gold and of silver, the weight and standard being specified or indicated by reference to previous use. Thus the noble of 1351 was ordered at the weight of 45 to the pound, and was to be current at the value of 6s. 8d. The alloy in this case was ordered to be of the "old standard", that is to say, 23 carats $3\frac{1}{2}$ grains fine.

The indentures also contain most precise orders relating to the trials of the pyx. The pyxes or boxes, into which the proper proportion of the coins struck were to be placed, are described, the number of locks on each box is specified; direction is given for the custody of the keys, for the sealing of the box when filled pending the next trial of the pyx, and for its safe custody. During the whole reign of Edward III, and later, the trials of the pyx were ordered to be held once every three months, and directions were usually given that the officer concerned was bound at his peril to make "une prive signe en toutes les monoies" of gold and silver worked by him so that he might know which were his and which not.

This privy mark was clearly to be used at the trial of the pyx next following for identification of the officer's work. It follows that if we could now identify all the privy marks we should be able to classify our coins with exactitude. A search for the mark, therefore, if successful, will be worth the trouble. We have no documentary evidence as early as Edward III's time as to what the privy mark was or where it was placed, but it is quite clear that anything on a coin which would

differentiate it might be considered to be of the nature of a privy mark. The mark which most obviously strikes us is that which we are accustomed to call the mint-mark, i.e. that mark which is found just before the first letter of the legend. This mark during the whole of Edward III's reign, except for one very short period, was a cross. This therefore could not have been the privy mark referred to in the indentures as, even if the different forms of the cross are taken into account, there are not nearly the number necessary to differentiate the coins. When a new form of cross mint-mark or, as we shall call it in future, initial mark, was first placed on the coin it might be considered the privy mark as well; it was new and therefore differentiated the new coin from its predecessor. The same would apply to an unusual form of letter, such as a reversely-barred N (N), or one without a bar at all (H). When stops were used between the words, the form or the number of these may have constituted the privy mark. In reigns later than Edward III, when considerable variation took place in the initial mark, these may have been used as privy marks, and again, a mark in the field may have served the purpose, such as the two tiny mascles found outside the tressure on some groats and half-groats of Henry VI. It is fairly clear that if a privy mark had to be placed on the coins every three months, a great variety of these marks must have been necessary. Also, to be privy, they must have been inconspicuous and so worked into the design that they would not have been noticeable unless looked for. Another form of privy mark may have been muling. We do not know whether this was so during the reign

of Edward III. Yet another method may have been the use of an old initial mark with a new form of stop. Examples of this occur in the reign of Henry VII, where we find on the whole of the arched crown series of groats two different stops to each initial mark. The variations of what may be privy marks are innumerable, and these few examples are only mentioned here as some sort of guide in helping to solve a very real problem.

Besides these ordered privy marks it is quite possible that some mark may have been placed on the coin to indicate a particular moneyer's work: this might possibly account for the long duration of such marks as the lis in the second quarter on the reverse of nobles towards the end of the 1351-1360 period, and the annulet in the DOII quarter of groats. There must be on such a coin another mark indicating the quarterly variety.

Epigraphical details always play an important part in the study of our coins. The various forms of letters found on the coins of Edward III will be detailed later. Here it is only necessary to note features which do not concern the epigraphical forms, but the mechanical process of the make-up of the die. The story of the manufacture of the letters on the dies for the Short-Cross coins is told in *Brit. Num. Journ.*, vol. vi. There is no doubt that the letters were then punched into the dies with a series of punches on which were engraved straight strokes or crescents or dots. By combining the various forms it was shown quite clearly that not only the letters but practically the whole die could be so produced, though finishing by hand was necessary after the punching was done.

This same method of production continued right down to the time of Edward III, but the use of larger punches, for the curls of hair, the complete crown, &c., were coming into use before his reign. The dies, therefore, for early Edwardian coins were made from punches on which were engraved strokes or dots for the letters and special designs for the crowns, necks, face, &c. It is of some interest to note the period when letter punches were first made for complete letters rather than for portions of letters. The coins would appear to show that the change began to take place shortly after 1351, and the first letters engraved complete were the closed Ω and Θ . A possible reason for this was utilitarian. The parts of Ω and Θ could not well be used for other letters, and the same applies to the Ξ . Gradually many of the other letters came to be engraved entire on letter punches until a complete set of these replaced the old dot and stroke punches. There is no doubt that coins made in this new way present a more finished appearance of the legend than was possible by the older method. It also eased the die-engraver's job to some extent, as it is simpler to use a single letter-punch than to make the letter from two or three punches.

When letter-punches were introduced, some punches were constantly used with a flaw in them. The use of "faulty" punches can be shown at various times even as late as Charles the First. The letters usually found broken on the coins of Edward III are Ω , Θ , Ξ , and, occasionally, X.

It was at one time thought that the appearance of these faulty letters on the coins was simply due to carelessness on the part of the die sinker; but a further

study of them shows that at one period they were broken in one place and at another period in another place. Thus between 1351 and 1360 the G and the H are first found broken at the bottom, later at the top, and towards the end of this period a slice was taken off the upper part of the back. These letters were constantly in use with other round letters, D, P, R, whose backs never show any signs of a break. It seems therefore an inevitable conclusion that the use of these particular broken punches was deliberate.

PERIOD I. 1351-1353.

Series A.

The indenture for the new coinage is dated July 1, 1351, and was between the King and Henry de Bruselee and John de Cicestre, masters of the mint. The order given was for nobles, half-nobles, and quarter-nobles of the old standard, i. e. 23 cts. $3\frac{1}{2}$ grs. fine, and for groats, half-groats, and pennies of the old sterling 11 oz. 2 dwt. fine. There is no mention of smaller coins. The noble was to weigh 120 grs. and the penny 18 grs. The coins which were struck in pursuance of the agreement are well known as a whole, but an accurate classification will enable us to show the variations which took place in the course of time.¹

¹ Two gold coins in the British Museum may possibly belong to this issue. Both show typical third coinage work and style. The first is a noble on which the only variation is in the position of the H in the central compartment, which is lying face downward when the coin is seen with the initial cross at the top. The coin is in fine condition, but weighs only 117.6 grains. The loss of some 11 grains does not appear to be the result of clipping. The other coin is a half-noble of the same issue. The coin is cracked, and a small hole has been plugged, otherwise the

The earliest coin of this period is perhaps a Durham penny, which bears an old florin type obverse joined to a reverse which shows the new style of lettering. Another variety, late obverse and early reverse, is also known. PL. V (XIX). 45, 46.

These two muled coins show us the characteristics of the true coin, PL. V (XIX). 47. It bears a head with a double-banded crown on the obverse; the legend is EDWTRDVS:RAX:KINGLIK. The reverse legend is *VII LIT:DVR REX, an annulet between the pellets in each quarter and one in the centre of the cross. The lettering on both sides is alike. The letter G is a closed one, the round R is used, and the stops are saltires. There are London pennies of the same style and lettering; the obverse of each coin reads EDWTRDVS:RAX:KINGLIK. The following varieties are found of the reverse:

1. DIVI TKS:LOR DOR. PL. V (XIX). 48.
2. DIVI TKS LOR DOR.
3. Similar to 2, with annulet over T of TKS.
4. " " " " " T of TKS.
5. DIVI TKS:LOR DOR. PL. V (XIX). 49.

Contemporary with these London and Durham pennies, or nearly so, are nobles and half-nobles which

piece is very fine. The weight is only 55 grains, which means the loss of at least 9 grains. These coins are mentioned here because it is at least possible that both of them were struck from dies made for the heavy coinage, but used to produce these lighter ones when the orders given in 1351 came into force. It is possible that, the reduction of weight coming before the end of a three-monthly period, the same dies were used till the end of the three months in order to conform to the current pyx mark; there would be no difficulty in this provided that a separate box were used for the light coins.

on the reverses bear the same lettering, including the round \mathcal{R} and a round \mathcal{M} . The lettering closely resembles that found on the nobles of 1344 and 1346, but the chevron-barred \mathfrak{A} of the latter is replaced by a plain unbarred \mathfrak{A} ; the h too is quite different from any on the earlier issues in that it has a tail which is curved round almost into an annulet thus \mathfrak{h} . Saltire crosses separate the words as on the Durham pennies. The full legend on the reverse of these nobles is $+\text{IHG} : \text{TR} \overline{\text{R}} \overline{\text{S}} \overline{\text{I}} \overline{\text{A}} \overline{\text{S}} : \text{P} \overline{\text{A}} \overline{\text{R}} : \mathfrak{M} \overline{\text{E}} \overline{\text{D}} \overline{\text{I}} \overline{\text{V}} \overline{\text{S}} : \text{I} \overline{\text{L}} \overline{\text{L}} \overline{\text{O}} \overline{\text{R}} \overline{\text{V}} \overline{\text{M}} : \text{I} \overline{\text{B}} \overline{\text{T}} \overline{\text{T}}$. The word "Autem" is omitted, a feature which this noble has in common with the two earlier nobles and the florin. The initial cross is of the same form as that found on the Durham and London pennies. The special marks so far noted on the reverse are:

- \ddagger (at tail of lion). \mathfrak{H} in centre. Pl. I
(XV). 3.
- \ddagger \mathfrak{D} in centre.
- \ddagger \mathfrak{H} in centre.
- \ddagger \mathfrak{D} in centre.

The half-nobles correspond with the nobles in lettering and stops and initial cross. The full legend is $+\text{D} \overline{\text{O}} \overline{\text{M}} \overline{\text{I}} \overline{\text{N}} \overline{\text{E}} : \mathfrak{R} \overline{\text{E}} : \text{I} \overline{\text{N}} : \text{F} \overline{\text{V}} \overline{\text{R}} \overline{\text{O}} \overline{\text{R}} \overline{\text{E}} : \text{T} \overline{\text{V}} \overline{\text{O}} : \mathfrak{P} \overline{\text{R}} \overline{\text{G}} \overline{\text{V}} \overline{\text{T}} \overline{\text{S}} : \mathfrak{M} \overline{\text{E}}$. The F of $\text{F} \overline{\text{V}} \overline{\text{R}} \overline{\text{O}} \overline{\text{R}} \overline{\text{E}}$ has, at the end of the bars, a long curved stroke extending from top to bottom of the

² This symbol (its position is taken with the legend beginning at the top of the coin) is used to denote in which quarter of the reverse the lis is placed, at the lion's head unless otherwise mentioned. On the half-nobles the lis is sometimes outside the tressure (as noted in the descriptions); occasionally two lis are found, one outside, and another, in another quarter, inside the tressure.

letter; hence the letter somewhat resembles R, and was so copied by the die-cutters of later coins.


The special marks noted are :


- (a) † outside tressure. † slantwise in centre. Pl. I (XV). 6.
 (b) † at tail of lion inside tressure. Pl. I (XV). 7.
 (c) † inside tressure. Pl. I (XV). 9.
 (d) † outside tressure. † at tail of lion inside tressure. † in centre. Pl. I (XV). 8.

The gold coins just described present a rather difficult problem, in that their obverses do not agree with the reverses in the important detail of lettering. We do not at present know any gold coins where the obverse presents the peculiar lettering of the reverse. The obverses of the nobles agree in all respects with those about to be described, but we do not know of any half-noble which presents the same features as the later nobles. Similarly, in the penny series, the style marked, in the groat series, by the Roman M is not found, and the very early pennies which are described above are muled with much later coins which have closed G and H and square H. Apparently no dies were made for pennies or for half-nobles corresponding to the intermediate issues of nobles and larger silver coins.

Series B.

The previously-described nobles, half-nobles, and pennies have a very close connexion with the next series of coins issued under the indenture of 1351. They are nobles, quarter-nobles, groats, and half-groats,

and they all bear a characteristic initial cross and lettering. The initial cross although a cross pattée is composed of four equilateral triangles, of which the sides pointing inwards are hollowed out . The bases often touch at the outer points, which makes the mark look like a square with four fine ovals meeting at the centre. In worn specimens the mark looks like a solid square.

The characteristic letters are the M, which is always the square Roman M, the C and Ć, which are always open, the V almost invariably reversely barred,³ the R, where the tail is always a wedge with the wider end outwards. The T is in most instances unbarred, but whether barred or unbarred, it is of normal form, whereas in the next issue it has a characteristic hook at the bottom of one leg, .

The letters are made with piece-punches of various shapes, except perhaps the V, which appears to have been engraved complete on the punch. T is probably made with a V punch and additions. The Y also looks as if it had been made complete on one punch. The reason for the making of these complete letter-punches is fairly evident, as the parts could not have been used for the composition of other letters, and one blow suffices for the complete letter, thereby saving labour.

The stops are always annulets.

The varieties of the noble are:—

1. *Obv.* EDWTD (*sic*) DEI GR^T REX TIGL' 7
FRANC' D hYBE, no stops, ropes 3-3; on ship lis,

³ Two groats are known with unbarred V's in LÖH DÖH.

lion, 2 lis, lion, 2 lis, lion, lis. The lions are to l.; 3 fleurs-de-lis in the French arms.

Rev. + (i.m.⁴ 1) IHCSSTRKICICHS PER MEDIVMS
ILLORVMIBTTM †. € in centre. Walters Sale
Catalogue, Pl. II. 117, now Mr. Lockett's. The
obverse die is one of those used for the production of
a noble in the British Museum of the previous issue,
with round R on the reverse. The reverse, it will be
noted, omits the word "Autem", another point of
resemblance to the early issue. Pl. I (XV). 3.

2. Another coin, in the national collection, is from the
same obverse die, but the reverse is that of a normal
coin reading + (i.m. 1) IHCSSTVTEMSTRKICICHS
PER MEDIVSILLORVIBTT †. € in centre. The
addition of "Autem", the correction of the bad Latin
"Illorem", and the removal of "TM" are of interest.
"TM" is thought by some to be an abbreviation of
the word "Amen". This may be so; it is, however,
curious that T and TH occur on some quarter-nobles
where there is no word omitted in the legend.

3. Another noble is now known from the reverse die
of No. 1 (ending TM). The obverse legend reads +
EDWARDDEIGRAREXANGL7 FRANCDBhVB

For smaller varieties see lists on pp. 437 ff.

During the two years from 1351 to 1353 very few
half-nobles were struck, and none are known with the
same lettering on both sides. The earliest have
already been described. Those which follow them
bear a closed G and G on the obverse, and they are
all united with reverses made for the early issues,

⁴ i.m. here, and throughout, is used for "initial mark", pre-
viously called "mint-mark".

with epigraphical details already noted with the round Ω and \mathcal{R} . The obverse shows that the coins are later than any of the pieces with Roman M, as it agrees in style and lettering with the nobles with initial mark no. 1, which also have the closed \mathcal{C} and \mathcal{H} , reversely-barred \mathcal{H} , and the \mathcal{J} with the hook pendent from one foot.

The reverse varieties are (in addition to those mentioned above, p. 426):—

1. \ddagger at tail of lion outside tressure; \ddagger at tail of lion inside tressure; \mathcal{C} in centre.

2. \ddagger at tail of lion inside tressure; \mathcal{C} in centre.

The remainder, already described, are dies used for coins of both issues.

The quarter-nobles bear the same initial cross and the same lettering as the nobles. The obverse type is the shield of arms. The fleurs-de-lis are semé as far as room allows; thus there are usually four complete lis in the first quarter, and three only in the fourth quarter. The reverse design shows the usual floral cross with \mathcal{C} closed in the centre. The obverse legends vary so considerably that it is almost impossible to state what the normal legend should be.

The varieties of the groats with open \mathcal{C} and \mathcal{C} are: Crowns in angles of reverse (Hunter Coll.); X of "Rex" made with the punch of the initial mark, and pellet stops on obverse, Pl. III (XVII). 26; pellet stops on reverse, Pl. III (XVII). 27; and varieties of spelling (see lists, pp. 442-4). On the half-groats pellet stops are not known except on the reverse of a piedfort (Lawrence Coll.), Pl. III (XVII). 29, and on a coin from the same reverse die. Smaller varieties are described on pp. 452-4. As already mentioned, no

pennies, halfpence, or farthings are known of this issue.

Series C.

The next issue shows a fresh departure in the lettering. The **Q** and **H** are now closed letters, and the Roman **M** is replaced by a Gothic **Ω**. The **S**, which had previously been made up of two crescents and two wedges now appears to have been cut on one punch, and is a much more graceful letter. The **Q** would also appear to be a single-punch letter, and possibly the **H**. The **A** is usually barred, and a little hook is frequently seen dependent from one of the lower limbs, **A**. There is no change in the general design of the coins, nor in the initial mark. The denominations showing these changes are the noble, groat, half-groat, and penny. These are all known as true coins, with the lettering the same on both sides of the coin. Except the penny all are also found extensively muled with the open letter coins (see lists below). The muling is usually with the later reverse, but the other way, later obverse, is known. The quarter-noble appears only as a mule, the obverse having the open letters and the reverse the closed **H**, **PL III (XVII). 21**. No half-nobles are known, and halfpence and farthings were not included in the indenture.

The nobles of this issue are set out in tabular form on p. 436, where there are included all the dies and their combinations that are at present known. It will be seen that one die, on which the king's name appears as **GDWTD**, is used from the earliest issue of 1351 down to this issue with closed letters.

The groats of this series vary in reading **DI G**,

DHI G, and D G; those reading DI G seem to be the earliest of the new series, as these groats with DI G are found with the open letters on the obverse and closed letters on the reverse, PL. IV (XVIII). 35. It is somewhat unfortunate that all the obverses noted are of rather coarse work. The coins with closed letters on both sides and reading DI G are of much better fabric. The chief varieties are connected with the fleuring of the arches of the tressures, and it has been found convenient to use this difference for subdividing the group. It is here we get the first evidence of a broken-letter punch. The Ω on the reverse is found with part of the foot missing on the right. The general rule for these groats is to have an annulet stop between each word. The stop is not usually found at the end of the legend, but the lists show one occasionally after hYB on the obverse or after Ω HV on the reverse.

Series D (ending in last quarter of 1353).

The initial cross mark, though very similar to that of Series B and C, is, however, always from an injured punch. The form of the cross is the same with the same curious appearance of four ovals. A piece is broken off, usually a corner, but in some cases as much as half the cross. The break was evidently made intentionally, as this feature is always accompanied by a difference in the form of one or two letters. Most prominent is the letter R. The old R with the wedge-shaped tail now disappears completely, and is replaced by an R with a curled tail. This R is never found on a coin bearing the complete initial cross of Series B or C. The \mathfrak{K} is usually unbarred. The letter N is

sometimes reversely barred, as in the previous series, or occasionally with normal bar, but most frequently unbarred. The coins themselves are more coarsely worked than those having the earlier initial mark; the union of the various parts of each letter is more carelessly adjusted, and the H is much thicker than on the earlier coins. As a rule the coins of this issue are quite easy to identify by the above particulars even if the initial mark is not clear. The position in the series is manifest by the series of mules on which one side shows the unbroken cross with the R and H⁵ of Series C, and the other side the broken cross and the corresponding letters of Series D (see lists below). Groats, half-groats, and pennies of Series D are known. Two nobles have reverses of Series D with obverses of Series C, PL. II (XVI). 16, 17.

No half-nobles or quarter-nobles are known. Of groats, half-groats, and pennies we have both mules of Series C and D and true coins of Series D. All these denominations were struck in London; Durham produced some pennies, and the royal mint of York was reopened after a long period of abeyance during the issue of this series. The mint accounts for the royal mint of York are included in Messrs. Crump and Johnson's list (*Num. Chron.*, 4th Series, vol. 13), which shows:

⁵ The H which first appeared in this series is a small letter with strongly curved front stroke. Some time later in this issue this was replaced by an H very squarely made so that the top edge is flat rather than curved. There is no groove where the front stroke joins the horizontal bar such as is found on the closed H of Series C.

P. 28 Edward III, 33 and P. 29 Edward III, 40.

14 July, 1353, to 24 Dec., 1354	. £18,761 6 9½
25 Dec., 1354, to 29 May, 1355	. £1,892 5 9

(Payment made for carriage of dies from London.)

There are no accounts for the archbishop's mint.

The following extracts have a general bearing on the York coinage of this period:—

Close Roll, 1353, July 18. To the Sheriff of York. Order to deliver to Henry de Brisele, master of the King's moneys in the Tower of London, and to William Hunt, keeper of the King's exchanges in the City of York, whom the King has charged to repair and if necessary re-make the houses for the workers of the said moneys in York Castle, for money to be paid to them by the hand of the said keeper, suitable houses and places in York Castle for that money, and a strong house without the castle where the money may be safely kept, and to aid and advise them in the premises when notified, as the King wishes those moneys to be made in the same way as in the Tower.

July 18. To William Hunt, keeper of the King's exchanges in the City of York, order to cause the said houses to be repaired and all other things necessary for the work of the moneyers in York Castle, by the advice and supervision of Henry de Brisele.

July 25. To William de Rothewell, keeper of the King's exchanges in the Tower of London, order to deliver to Henry de Brisele, master of the works of the King's moneys in the City of York, six standards and eighteen trusses for those works of the stamp called "le Grosse", four standards and twelve trusses for works of the money called "demi Grosse", and three standards and twelve trusses for works of the King's money of sterling.

1354, Feb. 21st. To William Rothewell, warden of the mint in the Tower of London. Order to deliver to Henry de Brisele, master moneyer in the City of York, five standards and fifteen trussels for the works of the money called "le Grosse", 5 standards and 15 trussels for the works of the money called "demi Grosse", and 3 standards and 9 trussels for the works of the King's money of sterling.

The coins issued by the royal mint at York were groats, half-groats, and pennies. The earliest coins of

all three denominations bore the broken initial cross with the R peculiar to that group, but with the second, square-topped, G already mentioned. This shows us that the broken cross was already in use at London and Durham before the York mint opened, as at both these places we find the broken cross in combination with the early G. How long it was in use before July 14 we are unable to say, but, judging by the coins with the earlier G, probably only a short time. It is just possible that the change of G was a privy mark for the Pyx trial, but in any case the period can hardly have been longer than three months, as all the coins with the early G are much scarcer than those with the later G, and some of the C-D mules bear this second G. On many of the coins of Series D a G is substituted for G on one or both sides of the coin. The whole duration of Series D must have been but a short one, as the varieties are but few, and mules are known combining Series C with Series D.

Before leaving Series D notice must be taken of one curious letter which occurs on a few coins only. This is the first letter of the king's name. It is undoubtedly meant for an E, but it is made from an altered punch, and looks as if a square E was made into a round one. The back is straight, and above and below two serifs are distinguishable. The front of the letter is much confused. The importance of the letter does not lie in the form but on the coins which bear it. It is only in the one place, in the king's name, that the letter E is of this form. Elsewhere, throughout both legends, it is of normal form. It appears on London and York half-groats and on Durham pennies of Series D, **Pl. V (XIX). 44**. It is also seen on London groats and pennies

of Series E. This letter must surely be one of the quarterly privy marks, of which few have hitherto been identified. If so, it proves that Series D ended and Series E began during the three months when this peculiar letter was in use as a privy mark for the Pyx trials. We can therefore, if our surmise is correct, date all the coins bearing it to a quarterly period shortly after July 14, 1353, and one may possibly go one step farther and say that it was the mark for the next quarter, October till December, 1353. That quarter then saw the end of the broken cross mark and the advent of the new initial cross. Perhaps we shall yet find other coins to complete the issues of London, York, and Durham with this peculiar E, but it is unlikely that all denominations of coins were struck every three months.

It was during the issue of Series D that some London groats had the mint name spelt LOMDOM. The intention of this curious spelling is not clear. It occurs on other issues besides Series D, and in all cases the M is too carefully made to allow of any idea of blundering. It is evidently a deliberate mark for some purpose, perhaps a Pyx privy mark. The M also sometimes occurs in one half only of the name.

L. A. LAWRENCE.

DESCRIPTIONS OF NOBLES IN PRECEDING TABLE.

Obverses.

Series A (early lettering), no obverses known.

Series B (open C and E).

		Lis in 1st quarter.	Lis.	Lion.	Lis.	Lion.	Lis.	Lion.	Lis.
A. E/D/WTRD°DGI°GRT°REX°TIIIGL°7°FRTHC°D°hYB		3	2	—	2	—	2	—	2
B. GRĀ		3	2	—	2	—	2	—	2
C. E/D/WTD	(no stops)	3	1	—	2	—	2	—	2
D. E/DWTRD		3	1	—	2	—	2	—	2
E. GRT		4	2	—	2	—	2	—	2
F. E/ further from bowsprit		4	1	—	2	—	2	—	2

Series C (closed G and E).

G. E/D/WTRD°DGI°GRT°REX°TIIIGL°7°FR°THC°D°hYB		4	1	—	1	—	1	—	1
H. 7°FRTHC	(annulet misplaced.)	4	1	—	1	—	1	—	1
I. D°hYB	(YB joined.)	4	1	—	2	—	2	—	?
J. Similar, YB joined, but no stops		4	2	—	2	—	2	—	1
K. Middle rope from prow long		4	1	—	2	—	2	—	1
L. Another die as H, but G nearer bowsprit		4	1	—	2	—	2	—	1
M. As H, but		4	2?	—	2	—	2	—	1
N. As H, but mast end of stern ropes visible to r. of crown		4	2	—	2?	—	2	—	1
O. Another die		4	2	—	2	—	2	—	1
P. E/D/WTRD°DGI°GRT°REX°TIIIGL°7°FRTHC°D°hY		4	2	—	2	—	2	—	1

The two outer ropes from prow long.

A, B, C, and D have 3 Lis in the arms, the remainder 4.

Reverses.

Series A (early lettering).

Legend. + **hG:TRPDSIGNS:PER:MDIVM:ILLORV:IBTT.** **TVTEM** omitted. Lis in one quarter over lion's head or tail. **G** in central compartment. The coin is described with the initial mark at the top.

1. †, **D** reversed.
2. †, **G**.
3. †, lis at tail, **G**.
4. †, **D** reversed.
5. †, **D** reversed. **IBTT:** A small saltire each side of the terminal lis of the floriate cross.

Series B (open C and E).

6. + **hC:TRTICIS:PER:MDIVM:ILLOREM (sic) IBTT:TM.** †, **E** in centre. **TVTEM** omitted.
7. + **hES:TVTEM:TRTICIS:PER:MDIVM:ILLOREV:IBTT.** †, **E** in centre.
8. + **hES:TVTEM:TRTICIS:PER:MDIVM:ILLOREV:IBTT.** †, **E** in centre.
9. **hE:TVTEM:TRTICIS:PER:MDIVM:ILLOREV:IBT.** †, **E** in centre.
10. **MEDIV ILLORV**
11. **hES:TVTEM:TRTICIS:PER:MDIV:ILLOREV:IBTT.** Single annulet stops.

Series C (closed C and C).

12.	+ I ^h GSV ^o AVT ^o Ω ^o TR ^h IC ^h IS ^o PER ^o Ω ^o MDIV ^o ILLORV ^o IBAT ^o .	Open C in centre †.
13.	Another die, similar to 12.	"
14.	+ I ^h GS ^o AVT ^o Ω ^o TR ^h IC ^h IS ^o PER ^o Ω ^o MDIV ^o ILLORV ^o IBAT ^o .	No stop after PER.
15.	AVT ^o Ω ^o PER ^o	"
16.	Another die, similar to 15.	"
17.	" " " but with closed C in centre.	"
18.	+ I ^h GS ^o AVT ^o Ω ^o TR ^h IC ^h IS ^o PER ^o Ω ^o MDIV ^o ILLORV ^o IBAT ^o .	Open C in centre.
19.	+ I ^h GS ^o Ω ^o MDIV ^o Ω ^o	"
20.	Another die, similar to 19.	"
21.	" " "	"
22.	" " "	but IBAT ^o
23.	" " "	IBAT ^o
24.	" " "	IBAT ^o
24 A.	" " "	IBAT ^o Closed C in centre.
24 B.	" " "	IBAT ^o "
25.	" " "	IBAT ^o "
26.	" " "	IBAT ^o "
27.	+ I ^h GS ^o Ω ^o ILLORV ^o IBAT ^o	"
28.	+ I ^h GS ^o Ω ^o ILLORV ^o IBAT ^o	"
29.	+ I ^h GS ^o Ω ^o IBAT ^o	"

Series D (broken initial cross and new lettering).

30. + $\text{h}\alpha\text{c}\circ\text{t}\text{v}\text{t}\alpha\text{m}\circ\text{t}\text{r}\text{t}\text{h}\text{c}\text{h}\text{g}\text{h}\text{s}\circ\text{p}\circ\text{m}\alpha\text{d}\text{d}\text{iv}\text{m}\circ\text{i}\text{l}\text{l}\text{o}\text{r}\text{v}\text{m}\circ\text{i}\text{b}\text{t}\text{t}$. Large α in centre †.
 31. $\text{t}\text{r}\text{t}\text{h}\text{c}\text{h}\text{g}\text{h}\text{s}\circ$ IBTT \circ Small α " "

Reverses of Series E found muled with obverses of Series C.

32. + $\text{h}\alpha\text{c}\circ\text{t}\text{v}\text{t}\alpha\text{m}\circ\text{t}\text{r}\text{t}\text{h}\text{c}\text{h}\text{g}\text{h}\text{s}\circ\text{p}\circ\text{m}\alpha\text{d}\text{d}\text{iv}\text{m}\circ\text{i}\text{l}\text{l}\text{o}\text{r}\text{v}\text{m}\circ\text{i}\text{b}\text{t}\text{t}$. R of early form. †.
 33. + $\text{h}\alpha\text{c}\circ\text{t}\text{v}\text{t}\alpha\text{m}\circ\text{t}\text{r}\text{t}\text{h}\text{c}\text{h}\text{g}\text{h}\text{s}\circ\text{p}\circ\text{m}\alpha\text{d}\text{d}\text{iv}\text{m}\circ\text{i}\text{l}\text{l}\text{o}\text{r}\text{v}\text{m}\circ\text{i}\text{b}\text{t}\text{t}$, R. No stop after $\text{m}\alpha\text{d}\text{d}\text{iv}$, v of $\text{i}\text{l}\text{l}\text{o}\text{r}\text{v}\text{m}$ altered from α . †
 Regular later R. †
 34. + $\text{h}\alpha\text{c}$ $\text{m}\alpha\text{d}\text{d}\text{iv}\text{m}$ †
 35. Another die, almost identical with 32.
 36. Similar die. $\circ\text{i}\text{l}\text{l}\text{o}\text{r}\text{v}\text{m}\circ$ (I omitted). †
 37. $\text{i}\text{b}\alpha$ †

Half-Nobles.

Series B / Series A.

1. $\epsilon/\text{d}\text{w}\text{t}\text{r}\circ\text{d}'\text{g}\text{r}\text{t}\circ\text{r}\text{e}\text{x}\circ\text{t}\text{h}\text{g}\text{l}'\text{7}\text{f}\text{r}\text{t}\circ\text{d}$ + $\text{d}\text{o}\text{m}\text{i}\text{n}\text{e}\text{r}\text{e}\text{m}\text{:}\text{h}\text{v}\text{r}\text{o}\text{r}\text{g}\text{:}\text{t}\text{v}\text{o}\text{:}\text{t}\text{r}\text{g}\text{v}\text{t}\text{s}\text{m}\alpha$
 hyB , ropes 3-3. 2 lis, lion, lis, lion, 2 lis.
 + same legend except the final α missing, no lis in any quarter. α slanted in centre. B.M.
 2. Same die.
 3. $\epsilon/\text{d}\text{w}\text{t}\text{r}\circ\text{d}'\text{g}\text{r}\text{t}\circ\text{r}\text{e}\text{x}\circ\text{t}\text{h}\text{g}\text{l}'\text{7}\text{f}\text{r}\text{t}\circ\text{d}$ + legend and stops of 1, no lis in tressure, lis at lion's tail, † α normal. B.M.

4. $\epsilon/DWTR^{\circ}D^{\circ}GRT^{\circ}REX^{\circ}THIGL^{\circ}FRRT^{\circ}D^{\circ}$ + same die as 2.
*h*Y, same ropes, &c.
5. Same die.
6. $\epsilon D/WTR^{\circ}D^{\circ}GRT^{\circ}REX^{\circ}THIGL^{\circ}FRRT^{\circ}D^{\circ}$
*h*YB, same ropes, 2 lis, lion, 2 lis, lion, lis.
- + same legend with \mathfrak{MB} , same die, no lis in tressure,
 lis at lion's head, † \mathfrak{H} normal. B.M.
- + $\text{:DOMINUS REGIS: FVRRORR: TVO: TRGVTS: MB}$,
 no lis in tressure, lis at lion's head, †
 \mathfrak{H} normal B.M.

Mules. Series C / Series A.

1. *Obv.*— $\mathfrak{H}/DWTR^{\circ}DBI^{\circ}G^{\circ}RHX^{\circ}THIGL^{\circ}7^{\circ}FRTHI^{\circ}D$ Ropes 3 and 3. Lis, lion, lis, lion, lis.
Rev.— $\text{DOMINUS REGIS: FVRRORR: TVO: TRGVTS: MB}$ † at tail of lion outside tressure;
 † at tail of lion inside tressure. \mathfrak{H} in centre. This die is not found with the earlier
 obverse, Series B. B.M., L.A.L.
- 2 Different obverse die (lis, lion, lis, lion, 2 lis) and same reverse die as preceding.
 B.M.
- 3 Same obverse die as preceding; same reverse die as (*b*) of preceding group. B.M.
- 4 Same obverse die as preceding; reverse similar to No. 1, but † at tail of lion inside tressure.
 This reverse die is not found with the earlier obverse, Series B.

Mule. Series C / Series E.

Obverse die same as No. 1 above. Reverse with new initial cross and corresponding R. R for F
 in "Furore". Small \mathfrak{H} in centre. † at head of lion inside tressure. Pl. III (XVII) 25.

Quarter-Nobles.

Series B.

Obv. Shield in tressure of six arches. Pellet below shield.

1. +EDWTR'°D'°G'°REX°THGL'7FRTHC°D°hYB
2. +EDWTR'°R'°THGL7FRTHC'°D°hYBER
3. +Same die.
4. +EDWTR'°D'°G'°REX°THGL'°7°FRTHC
5. +Same die (?).
6. +Same die.
7. +EDWTR°D°G°REX°THGL°7°FRTH
8. +Same die.

Mules. Series B / Series C.

9. +Same die (?) as Nos. 7, 8, above.

Dies 2 and 4 are used later to produce mules with reverses of Series E.

Mules. Series B / Series E.

Series B.

10. +EDWTR'°R°/THGL7FRTHD°D°hYBER. Die of 2.
11. +EDWTR°D°G°REX°THGL°7°FRTHC. Perhaps same die as No. 4 above.
12. +Same die.

Groats of London.

Series B.

1. +EDWTR°D°GRT°REX°THGL°7°FRTHC°D°hYB
2. +EDWTRD·D̄:GRT:REX:THGL':7:FRTHC:D̄·hYB. Pellet stops. The letter X is the initial cross placed sideways.
3. +EDWTR°...GRT°REX°THGL°7°F.....C°D°hYB
4. +EDWTR'°D GRT°REX°THGL°7°FRTHC°D̄°hYB'
5. +EDWTR'°D°GRT°REX°THGL°7°FRTHC°D°hYB'

Rev.—Floriate cross in tressure of eight arches. Closed Θ in centre.

1. +EXTLT $\overline{\text{T}}$ BITVR \circ III \circ GLORIT $\overline{\text{T}}$ I
 2. +EXTLT $\overline{\text{T}}$ BITVR $\text{\textcircled{R}}$ III $\text{\textcircled{R}}$ GLORIT $\overline{\text{T}}$ $\overline{\text{T}}$
 3. +Another die.
 4. +Same die as 2.
 5. +EXTLT $\overline{\text{T}}$ BITVR \circ III \circ GLORIT $\text{\textcircled{R}}$ TI
 6. +EXTLT $\overline{\text{T}}$ BITVR \circ III $\text{\textcircled{R}}$ GLORIT $\text{\textcircled{R}}$
 7. +EXTLT $\overline{\text{T}}$ BITVR $\text{\textcircled{R}}$ III $\text{\textcircled{R}}$ GLORIT $\overline{\text{T}}$
 8. +EXTLT $\overline{\text{T}}$ BITVR $\text{\textcircled{R}}$ III $\text{\textcircled{R}}$ GLORIT $\overline{\text{T}}$, form of Θ and last $\overline{\text{T}}$ doubtful.
-
9. + Θ X $\overline{\text{T}}$ L $\overline{\text{T}}$ $\overline{\text{T}}$ BITVR \circ III \circ GLORI $\overline{\text{T}}$

Series E.

10. + Θ X $\overline{\text{T}}$ L $\overline{\text{T}}$ $\overline{\text{T}}$ BITVR \circ III Θ hLORI $\overline{\text{T}}$. Pellet in centre of the reverse.
11. +Same die (?).
12. + Θ X $\overline{\text{T}}$ L $\overline{\text{T}}$ $\overline{\text{T}}$ BITVR \circ III \circ Θ $\overline{\text{T}}$ hLORI Pellet in centre.

1. POSVI \circ D/EVM \circ $\overline{\text{T}}$ D/IVT $\overline{\text{O}}$ RE \circ / \circ MEVM+/L $\overline{\text{O}}$ ND $\overline{\text{O}}$ II CIVIT $\overline{\text{T}}$ S
Crowns in angles.
2. +POSVI \circ /DEVM \circ $\overline{\text{T}}$ /DIVT $\overline{\text{O}}$ RE/M \circ MEVM, L $\overline{\text{O}}$ ND $\overline{\text{O}}$ II CIVIT $\overline{\text{T}}$ S
Pellets altered from crowns?
3. +POSVI/DEVM \circ IVT $\overline{\text{O}}$ RE/M : MEVM/CIVIT $\overline{\text{T}}$ S L $\overline{\text{O}}$ ND $\overline{\text{O}}$ II
Pellet stops.
4. +POSVI \circ / \circ DEVM \circ $\overline{\text{T}}$ /DIVT $\overline{\text{O}}$ RE/M \circ MEVM. L $\overline{\text{O}}$ ND $\overline{\text{O}}$ II CIVIT $\overline{\text{T}}$ S
5. + T $\overline{\text{T}}$ S

6. + POSVI^o/DEVM^oƿ/DIVT^oRE/M^oMEVM, L^oNDON CIVIT^oTS
Letters R̄ in ligature
7. + DIVT^oRE/
8. + POSVI^o/DEVM^oƿ/DIVT^oRE/M^oMEVM, D^oHN CIVIT^oTS L^oHN
9. + DEVM^oƿ/ /M^oMEVM/L^oNDON CIVIT^oTS
- 9*. + POSVI^o/DEVM^oƿ/ L^oNDON CIVIT^oTS
10. + DEVM^oƿ/DIVT^oRE/ L^oNDON
11. + Same die.
12. + DEVM^oƿ/DIVT^oRE/
- 12*. + As No. 9, but different die.
13. + T^oTS
14. + T^oTS
15. + POSVI/D^oEVMT^o/DIVT^oRE/M MEVM/L^oNDON CIVIT^oTS
No stops.
16. + With stops as No. 4. T^oTS
17. +

1. + POSVI^o/D^oEVMT^o/DIVT^oRE/ƿM^oMEV̄/L^oNDON CIVIT^oTS
2. + M^oEV̄
3. + POSVI^o/D^oEVMT^o/DIVT^oRE/ƿ...EV̄/L^oNDON CIVIT^oTS
4. + M^oEV/ T^oTS
5. + M^oEV/ T^oTS
6. + ƿ/DIVT^oRE/ƿM^oMEV̄ T^oTS
7. + T^oTS
8. + ƿ M^oEV^o T^oTS
9. + T^oTS } Same die.
10. + M^oEV^o T^oTS }
11. + T^oTS No stops.
12. + M^oEV̄ T^oTS
13. + POSVI^o/D^oEVMT^o/DIVT^oRE/ƿM^oMEV̄
14. + ƿ M^oEV̄

15. +PQSVI/°DQVW°K/DIVTQK/WM . . . /LQHDQK CIVITQS
Coarse work. TQS
16. +PQSVI/°DQVW°K/DIVTQK/WM°WQV/
Coarse work. TQS
- 16*. As No. 7, but different die.
17. +PQSVI/°DQVW°K/DIVTQK/WM°WQV/
(Different dies.) Coarse work, W broken. TQS
18. + TQS
19. + TQS
- W broken. RCL.

+ PQSVI/°DQVM°K/DIVTQRE/M°MEVM/
TQS
Early rev.

1. +PQSVI/°DQVW°K/DIVTQK/WM°WQV, LQHDQK CIVITQS
2. +PQSVI/°DQVW°K/
3. +PQSVI/DQVW°K/
4. +PQSVI/°DQVW/°K Broken W

5. +PQSVI/°DQVW°K
6. + °K
7. + DQVW°K
8. +PQSVI/°DQVW°K BM
9. +PQSVI/DQVW°K No stops. BM
10. +PQSVI/DQV W°K/DIVTQK/WM°WQV Broken W BM

11. +PQSVI/DQVW°K/DIVTQK/WM°WQV, LQHDQK CIVITQS
Ws broken.
12. +PQSVI/°DQVW°K/
13. +PQSVI/°DQVW°K/DIVTQK/WM°WQV° BM
14. +PQSVI/DQVW°K BM

15. + POSVI^o/D^oEV^oM^oƆ/DIVT^oOR/EM^oMEV̄^o/LOND^oON CIVIT^oAS
16. + POSVI^o/D^oEV^oM^oƆ/ M^oEV
17. + Ɔ
-
18. + Ɔ
19. + POSVI^o/D^oEV^oM^oƆ/ EM^oMEV
Broken M, coarse work
20. + POSVI/D^oEV . . /DIVT^oOR/EM^oMEV
Broken M, coarse work.
21. + POSVI^o/D^oEV^oM^oƆ/DIVT^oOR/EM^oMEV̄^o
22. + Ɔ
-
23. + POSVI^o/D^oEV^oM^oƆ/DIVT^oOR/EM^oMEV̄, LOND^oON CIVIT^oAS
24. + M^oEV^o, T^oAS LOND^oON CIVI
25. + POSVI^o/D^oEV^oM^oƆ/DIVT^oOR/EM^oMEV̄^o, LOND^oON CIVIT^oAS
26. /D^oEV^oM^oƆ/ M^oEV
-
27. + POSVI^o/D^oEV^oM^oƆ/DIVT^oOR/EM^oMEV̄ Ɔ
28. + POSVI/D^oEV^oM^oƆ/ M^oEV̄^o
29. + not clear but EM^oMEV M^os broken, coarse work.
30. + " " Ɔ
31. + POSVI/D^oEV^oM^oƆ/DIVT^oOR/EM^oMEV Ɔ
32. + POSVI^o/D^oEV^oM^oƆ/ M^oEV̄^o
33. +
34. + POSVI/D^oEV^oM^oƆ M^oEV̄ Ɔ
35. Ɔ M^oEV̄^o Ɔ

Series C.

1. + POSVI/D^oEV^oM^oƆ/DIVT^oOR/EM^oMEV, LOND^oON CIVIT^oAS

2. Same as 1 but Q for H .
 3. Same as 2.
 4. $+\text{GDWTRDDGRGX}\circ\text{THIGL}\circ\text{FRTHID}\circ\text{D}\circ\text{h}\circ\text{Y}\circ\text{B}'$
 Q in Edward. 7 omitted.

Series D.

True coins, Series D.

H reversely barred both sides, top arches not fleured.

1. $+\text{GDWTRD}\circ\text{D}\circ\text{R}\text{GX}\circ\text{THIGL}\circ\text{7}\circ\text{FRTHID}\circ\text{D}\circ\text{h}\text{YB}$ Hs.
 2. $+\text{GDWTRD}\circ\text{D}\circ\text{G}\circ\text{R}\text{GX}\circ\text{THIGL}\circ\text{7}\circ\text{FRTHID}\circ\text{D}\circ\text{h}\text{YB}$ Q in Rex.
 2*. $\text{FRTHID}\circ\text{D}\circ\text{h}\text{YB}\circ$

Flat-topped H . II unbarred.

3. As 1, but unbarred Hs.
 3*. $\text{GDWTRD D}\circ\text{G}\circ\text{R}\text{GX}\circ\text{... FRTHIDhYB}$
 4. As 3, where visible, but square-topped Hs.
 5. $+\text{GDWTRD DG}\circ\text{R}\text{GX}\circ\text{THIGL}\circ\text{7}\circ\text{FRTHID}\circ\text{D}\text{hYB}$ Q for H .
 6. As 5.
 7. $+\text{GDWTRD}\circ\text{D}\circ\text{G}\circ\text{R}\text{GX}\circ\text{THIGL}\circ\text{7}\circ\text{FRTHIDIDhYB}$
 8. $+\text{GDWTRD}\circ$ $\text{FRTHID}\circ\text{D}\circ\text{h}\text{YB}$
 9. $\text{FRTHIDID}\circ\text{h}\text{YB}\circ$
 10. $+\text{GDWTRD DG}\circ\text{R}\text{GX}\circ\text{THIGL}\circ\text{7 FRTHID}\circ\text{D}\circ\text{h}\text{YB}$
 11. $+\text{GDWTRD}\circ\text{D}\circ\text{G}\circ\text{R}\text{GX}\circ\text{THIGL} \text{7 FRTHID D}\circ\text{h}\text{YB}\circ$
 12. $+\text{GDWTRD DG R}\text{GX}\circ\text{THIGL FRTHID}\circ\text{D}\circ\text{h}\circ\text{Y}\circ\text{B}\circ$ 7 omitted.
 13. $+\text{GDWTRD}\circ\text{D}\circ\text{R}\text{GX}\circ\text{THIGL} \text{7 FRTHID D}\circ\text{h}\circ\text{Y}\circ\text{B}\circ$ G omitted.
 13*. $+\text{GDWTRD D G R}\text{GX}\circ\text{THIGL} \cdot \cdot \text{hYB}$
 H in Angl. Stops illegible.
 14. $+\text{GDWTRD}\circ\text{D}\circ\text{G}\circ\text{R}\text{GX}\circ\text{THIGL}\circ\text{7}\circ\text{FRTHID}\circ\text{D}\text{hYB}$
 15. $+$ $\text{D}\circ\text{h}\text{YB}$
 15*. $+\text{GDWTRDDGR}\text{GX}\circ\text{THIGL FRTHID}\circ\text{D}\circ\text{h}\circ\text{Y}\circ\text{B}\circ$
 15^b. $+\text{GDWTRDD}\circ\text{G}\circ\text{R}\text{GX}\circ\text{THIGL}\circ\text{7}\circ\text{FRTHID}\circ\text{D}\circ\text{h}\text{YB}$
 H unbarred both sides.
 16. $+\text{GDWTR}\circ\text{D}\circ\text{D}\circ\text{G}\circ\text{R}\text{GX}\circ\text{THIGL}\circ\text{7}\circ\text{FRTHID}\circ\text{D}\text{hYB}$

17. +EDWTRD°D°G°RAX°THIGL7°FRTHID°DhYB
 18. +EDWTRD°D°GRAXTHIGL7°FRTHID°D°hY°B3
 19. Same die as 18.
 20. +EDWTRD°D°G°RAX°THIGL°7°FRTHID°D°hYB3
 21. +EDWTRDDGRAXTHIGL7FRTHIDhYB No stops.
 22. +EDWARD DG°RAX°THIGL7FRTHIDhYB
 23. +EDWTRD°D°G°RAX°THIGL°7°FRTHID°D°hYB°
 24. +EDWTRD°D°GRAX°THIGL°7°FRTHIDID3h°YB°
 25. +EDWTRDD°G°RAX°THIGL7FRTHIDhYB
 26. +EDWTRD (D for H) hRTHID
 No stops.

Mules. Series D / Series E.

Series D.

1. +EDWTRD°D°G°RAX°THIGL°7°FRTHIDID3h°YB°
 2. +EDWTRD°D°G°RAX°THIGL°7°h°RTHID°DhYB
 3. +EDWTR°D &c., same die as 16.
 4. Same legend, stops not clear.

Half-Groats of London.

Series B.

The general type of these is the full face surrounded by a tressure of nine arches, those above crown being occasionally unfleured. The reverse is the usual one showing the long cross with three pellets in each angle.

1. +EDWTRDVSRAX°THIGL°7°FRTHIC13 Top arches not fleured.
 2. +Same die.
 3. +Same die.
 4. +EDWTRDVSRAX°THIGL°7°FRTHIC'

5. +EDWTRDVS°REX°TINGLI°7°FRTHI
 6. +Same die.
 7. +Same die.
 8. +EDWTRDVS°REX°/TINGLI°7°FRTHICI All arches fleured.
 9. +Same die? " "
 10. +Another die. " "
 11. +EDWTRDVS°REX°TINGLI°7°FRTHIC "

Mules of Series B and Series C.

1. Mule +EDWTRDVS REX°TINGLI°FRTHICI
 No stops. Top arches not fleured.
 2. " +Same die as BM.
 3. " +Same die as No. 10 above.
 4. " +EDWTRDVS°REX°TINGLI°7°FRTHIC

Series C.

(a) All arches fleured, FRTHICI

1. EDWTRDVS°REX°TINGLI°7°FRTHICI
 2. FRTHICI°
 3. FRTHICI
 4. FRTHICI
 4*. Same die as No. 4.

Reading FRTHI

+EDWTRDVS°REX°TINGLI°7°FRTHIC
 +

(b) FRTHI

5. EDWTRDVS°REX°TINGLI°7°FRTHI
 6. FRTHI°
 7.
 8. Where visible as 5.
 9. FRTHI°
 10. FRTHI°
 11. EDWTRDVS°REX°TINGLI°7°FRTHI

This last coin has the altered E in Edward. It looks later and

5. + Same die as piedfort.
6. + POSV / I^oDE^v°K / DIVT^o / RE^oME / LOND^oON CIVIT^oTS
7. + Another die, spacing differs.
8. + POS / VI^oDE^v ° / °KDI^oVT / OREM / LOND^oON CIVIT^oTS
9. + POS / VI^oDE^v / M^oKDI / VT^oRE / LOND^oON CIVIT^oTS
10. + POS / VID^oEV / °KDI^oVT / OREM, LOND^oON CIVIT^oTS No stops.
11. + POSV / I^oDE^v°K / DIVT^o / RE^oME / LOND^oON CIV^oIT^oTS

1. + Same die as piedfort.

2. + POS / VID^oEV / °KDI^oVT / ORE^oM / LOND^oON CIVIT^oTS No stops.
3. + POS / VI^oDE^v ° / °KDI^oVT / ORE^oM / LOND^oON CIVIT^oTS
4. + POS / VID^oEV / °KDI^oVT / OREM / LOND^oON CIVIT^oTS
No stops, same die as No 10 above.

1. POS / VI^oDE^v° / °KDI^oVT / ORE^oM LOND^oON CIVIT^oTS
2. TTS
3. DE^v°? / TTS
4. POSV / I^oDE^v° / °KDI^oVT / ORE^oM TTS
- 4*. DE^v° / TTS

+ POS / VI^oDE^v° / °KDI^oVT / ORE^oM (I for E) TTS
+ / VI^oDE^v° / ORE^oM

5. POS / VI^oDE^v° / ? °KDI^oVT / ORE^oM TTS
6. POS / VID^oEV / °KDI^oVT / ORE^oM No stops. TTS
7. As 5. °KDI^oVT / TTS
8. As 5 but Ω broken.
9. POSV / I^oDE^v° / °KDI^oVT / ORE^oM TTS
10. As 9 but TTS
11. POS VI^oDE^v° / °KDI^oVT / ORE^oM TTS?

coarser than any of the above. It is placed here on account of the fleuring of the arches.

(c) Top arches not fleured FRTHCI

1. HDWTRDVS·RHX·THGLI·7·FRTHCI

2.

3.

No stops.

4. HDWTRDVS·RHX·THGLI·7·FRTHCI

5. As 1.

6. HDWTRDVS REX THGLI 7 FRTHCI No stops.

(d) FRTHCI

6. HDWTRDVS·RHX·THGLI·7·FRTHCI'

HDWTRDVS·RH LI·7·FRTHCI'

7. HDWTRDVS·RHX·THGLI·7·FRTHCI Annulets missing in places.

8. FRTHCI The straight bar missing.

9. HDWTRDVS·RHX·THGLI·7·FRTHCI

10. +HDWTRDVS REX THGLI 7 FRTHCI

Mules. Series C and D.

Series C.

1. +HDWTRDVS·RHX·THGLI·7·FRTHCI

Barring of Ts? All arches fleured.

2. +HDWTRDVS REX THGLI 7 FRTHCI Top arches not fleured.

3. As 1 but top arches not fleured.

4. As 3 where visible.

5. As 1.

Series D.

1. +HDWTRDVS·RHX·THGLI·7·FRTH, Θ

2. +As 1.

3. +As 1 but ends FRTHCI

3'. +HDWTRDVS·RHX·THGLI·7·FRTHCI·

4. +HDWTRDVS REX THGLI 7 FRTHCI. No stops. Θ for Θ.

4'. As 4.

1. POS / VI ^o DE ^{v̄} / ^o ADIVT / OR ^Ω LOND ^Θ II DIVIT ^{TS}	
2.	π TKS
3. POS / VI ^o DE ^{v̄} / ^o ADIVT / OR ^Ω	TKS
4. POS / VI ^o DE ^{v̄} / πDIVT / OR ^Ω	TAS
5. As 1 but πDIVT	TAS
6. POS / VI ^o DE ^{v̄} / ^o ADIVT / OR ^Ω	TKS
6. POS / VI ^o DE ^{v̄} / ^o AVDIT / OR ^Ω	TKS?
POS / VI ^o DE ^{v̄} / ^o ADIVT / OR ^Ω	TKS
7. POS / VI ^o DE ^{v̄} / πDIVT / OR ^Ω	TKS
8.	TKS
9. POS / VI ^o DE ^{v̄} πDIVT / OR ^Ω	TKS?
10. +POSV / I ^o DE ^{v̄} Ω / ^o ADIVT / OR ^Ω	π

Series D.

1. +POS / VID ^{v̄} / ADIVT / OR ^Ω , LOND ^Θ II DIVIT ^{TS}	No stops.
2. +As last but	LOND ^Θ II
3. +As 1 but	D ^Θ II DIVIT ^{TS} L ^Θ II
4. +As 1 but	LOND ^Θ II θ
5. +As 1 but	TKS LOND ^Θ II DIVI θ London.

1. +POS / VI ^o DE ^{v̄} / πDIVT / OR ^Ω , LOND ^Θ II DIVIT ^{TS}	Late θ.
2. +POS / VI D ^{v̄} / πDIVT / OR ^Ω	θ for θ. No stops.
3. +As 2.	
3'. +POS / VID ^{v̄}	
4. +POS / VID ^{v̄} / πDIVT / OR ^Ω	
4'. +As 2.	

5. +GDWTRDVS RDX°THGLI 7°FRTOI
 6. +GDWTRDVS°RDX°THGLI°7°FRTOI Barred H. Late G.
 6'. As 4.
 7. +GDWTRDVS°RDX°THGLI°7°FRTOI
 8. +EDWTRDVS RDXTHGLI 7FRTOI
 Square E in Edward. G in Rex. No stops.
 9. +Same die as 8.
 10. +GDWTRDVS RDX THGLI 7 FRTOI
 Top arches not fleured. No stops. G for G.
 11. + EDWTRDVS RDX THGLI 7 FRTOI
 No stops. Top arches not fleured. E. G for G.

Mules. Series D and E.

Series D.

1. Same die as 8.
 2. As 4, above.
 3. +GDWTRDVS°RDX°THGLI°7°FRTOI
 4. As 2.

Series E.

4. +GDWTRDVS°RDX°THGLI°7°FRTOI
 5. +GDWTRDVS°RDX°... THGLI°7°FRTOI

Pennies of London.

Series A.

1. +GDWTRDVS°RDX°THGLI
 2. +GDWTRDVS°RDX°THGLI
 3. As preceding.
 4. As preceding.

Mules. Series A / Series C.

1. +GDWTRDVS°RDX°THGLI
 2.

5. +As 2.

6. +As 2.

6. +POS/°VIDEY/°KDIVT/°ORAM LONDON CIVITTS

7. +POS/VIDEY°/°KDIVT/°ORAM LONDON CIVITTS

8. +POS/VIDEY°/°KDIVT/°ORAM LONDON CIVITTS

9. +As 2.

Broken +POS/VIDEY/°KDIVT/°ORAM, LONDON CIVITTS

No stops.

+POS/VI°DEY°/°KDIVT/°ORAM, LONDON CIVITTS

Series E.

1. +POS/VI DEY/°KDIVT/°ORAM, LONDON CIVITTS (E for R.)

2. +POS/VI°DEY°/°KDIVT/°ORAM " " "

3. +POS/VIDEY°/°KDIVT/°ORAM " " "

4. +POS/VI/DEY°/°KDIVT/°ORAM Late R.

Series D.

4. +POS/VIDEY°/°KDIVT/°ORAM Normal R.

5. +As last.

1. CIVITTS:LONDON

2. CIVITTS:LONDON

3. CIVITTS LONDON

4. CIVITTS:LONDON

1. CIVITTS LONDON

2. CIVITTS LONDON

Mules. Series C / Series A.

Series C.

1. HDWTRDVS°RAX°THGLI
2. HDWTRDVS°RAX°THGLI Two pellets over crown.
3. HDWTRDVS°RAX°THGLI
4. HDWTRDVS°RAX°THGLI
5. HDWTRDVS°RAX°THGLI
6. HDWTRDVS°RAX°THGLI

Series C.

1. +HDWTRDVS°RAX°THGLI
2. HDWTRDVS°RAX°THGLI⁸
3. HDWTRDVS°RAX°THGLI
4. HDWTRDVS°RAX°THGLI
5. HDWTRDVS°RAX°THGLI
6. HDWTRDVS RAX THGLI

Mules. Series C and D.

These mules are somewhat difficult to identify as the reverses bear no initial mark and none of the characteristic letters of Series D. The unbarred N and unbarred T together with the coarseness of the work should be sufficient reason to place them to Series D. The square topped E of Series E also points the same way.

Series C.

1. +HDWTRDVS°RAX°THGLI'
2. +HDWTRDVS RAX THGLI No stops.
3. +HDWTRDVS RAX THGLI No stops.

Series D.

1. +HDWTRDVS°RAX°THGLI
2. +HDWTRDVS°RAX°THGLI
3. +HDWTRDVS°RAX°THGLI U for E in Rex.
4. +HDWTRDVS°RAX°THGLI 7 Thin E.

Series A.

1. DIVITKSꝛLORDOR
2. DIVITKSꝛLORDOR
3. DIVIT^oKSꝛLORDOR
4. DIVIT^oKSꝛLORDOR
5. DIVITKSꝛLORDOR
6. DIVITKSꝛLORDOR

1. DIVI TꝛSꝛLONDOR
2. TꝛSꝛ
3. DIVI TꝛSꝛLONDOR
4. DIVI TꝛSꝛLONDOR
5. DIVITKSꝛLONDOR
6. DIVI LONDOR

Rough work, stops not visible.

Series D.

1. DIVITKSꝛLONDOR
2. DIVITKSꝛLONDOR
3. DIVITKSꝛLONDOR

The first N may be barred N.

1. DIVITKSꝛLONDOR
2. DIVITKSꝛLONDOR
3. DIVITKSꝛLONDOR
4. DIVITKSꝛLONDOR

5. As 4.

6. +GDWTRDVS·R̄EX·TIIGLI·7

7. +GDWTRDVS R̄EX TIIGLI 7 No stops.

YORK.

John Thoresby succeeded William de la Zouche as Archbishop of York in February, 1353. On May 2 of the same year the rolls tell us that he got his order for dies. July, 1353, saw the reopening of the Royal Mint of York and the temporary closure of the Archbishop's mint. Pennies with the initial cross of Series D and with a quatrefoil on the reverse can now with certainty be assigned to Archbishop Thoresby between May and July, 1353.

Ecclesiastical Mint.

+GDWTRDVS R̄EX TIIGLI 7

The pennies now known are all so poor that complete details on any one coin cannot be made out. One has a barred H in TIIGLI, another has an annulet before 7, a third an annulet after R̄EX. The centre of the quatrefoil on one coin has a pellet, on another a pellet and cross. The Archbishop's mint reopened some time after the Royal York mint closed in May, 1355.

York Royal Mint.

This mint, after having been closed since 1300, reopened in July, 1353 (see above, p. 433). Series D must have been nearing its end at London as York coins of the same series are rare as true coins, though rather more common as mules with Series E.

Groats.

Series D.

1. +GDWTRD·D·R̄EX·TIIGLI·7·FR̄TIIG·DhYB'

G omitted. No fleur on King's right shoulder.

5. CIVITVS LQIDQII Q for O, probably a blunder.
 6. CIVITVS LQIDQII
 7. CIVITVS LQIDQII

CIVITVS EBORTQII, quatrefoil in centre.

1. + POSVI / DEVS M^o K / DIVT^o R / M^o M^o V, EBORTQII CIVITVS

Mules. Series D and E.

Series E.

1. + Θ DWTRD \circ D \circ G \circ R Θ X \circ THIGL \circ 7 \circ FRTHI Θ \circ D \circ hYB
R of early form.
2. As last but no annulet before D or hYB
3. Another die as last, but annulet before hYB.
4. + Θ DWTRD \circ D \circ G \circ R Θ X \circ THIGL \circ 7 \circ FRTHI Θ \circ D \circ hYB
R of later form.
5. As 1 but no stop after Edward.

Half-Groats.

Series D.

1. + Θ DWTRDVS \circ R Θ X \circ THIGLI FRTHI Θ Θ for Θ .
2. Same die.
3. + Θ DWTRDVS \circ R Θ X \circ THIGLI 7FRTHI Θ (square E)

Mule. Series E and D.

Series E.

1. + Θ DWTRDVS \circ R Θ X \circ THIGLI \circ 7FRTHI Early R.

Pennies.

Series D.

1. + Θ DWTRDVS \circ R Θ X \circ THIGLI \circ 7 Θ for Θ .
2. Θ DWTRDVS \circ R Θ X \circ T \circ HIGLI7

Reviewing this curious Series D which could only have lasted a short time, certain peculiarities may be noted. The constant replacement of Θ by Θ is noteworthy. The number of small varieties especially on the groats is somewhat remarkable. Coarse work and perhaps careless work is also very noticeable. Mules are happily extraordinarily common and place the series without any possibility of mistake.

Series D.

1. +POSVI^o/D^eV^oM^oT/DIVT^oR/^eM^oM^eV̄, EB^oR^oT^oCI CIVIT^oTS
2. As last but M^eV, CIVIT^oTS EB^oR^oT^oCI
Note O for S.
3. Same die as 2.
4. +POSVI/D^eV^oM^oT/DIVT^oR/^eM^oM^eV, EB^oR^oT^oCI CIVIT^oTS
5. As 1.

1. +POS/VID^eV^o/T^oDIVT/^oR^eM, CIVIT^oTS EB^oR^oT^oCI
2. +POS/VI^oD^eV^o/T^oDIVT/^oR^eM, EB^oR^oT^oCI CIVIT^oTS E for A.
3. As 1.

Series D.

1. +POS/VID^eV^o/T^oDIVT/^oR^eM CIVIT^oTS EB^oR^oT^oCI

1. CIVIT^oTS EB^oR^oT^oCI No quatrefoil in centre.
2. Same as 1.

Durham Pennies.

Mules of 1344-1351 and 1351-1353.

See above, p. 424.

Series A.

+GDWTRDVS:RDX:TRGLIθ

Series C.

1. +GDWTRDVS°RDX°THGLIθ

2. + π

3. +GDWTRDVS°RDX°THGLI

4. + π π5. + π

6. Illegible, but THGLIθ

7. " " THGLI°

•• on breast.



Series D.

1. +GDWTRDVS°RDX°THGLIθ 6s.

2. +EDWTRDVS°RDX°THGLIθ

3. +ED S RDX π θ

EVIL/ƆLIT/DVR/RΘΩ Annulet between pellets in each quarter and in centre of cross.

1. ƆDIVITTS DVHΘ LΘMΘ
2. 
- 3.
4. 
- 5.

1. ƆDIVITTS DVHΘ LΘMΘ Crozier before DIVI. Θs.
2. ƆDIVITTS DVHΘLΘMΘ
3. As last.

LIST OF COINS ILLUSTRATED.

[The letters and numbers at the end of each description refer to dies described above.]

Plate I (XV).

- No. 1. Noble, 1346, for comparison of the lettering with that of Series A.
No. 2. Half-noble of the same coinage.
No. 3. Noble, *obv.* Series B, *rev.* Series A. C/3.
No. 4. Noble, Series B, *rev.* only. Legend ends $\overline{\text{TM}}$, no $\overline{\text{TVTEI}}$. 6.
No. 5. Noble, Series B, *rev.* only. With $\overline{\text{TVTEI}}$ and double annulet stops. 9.
No. 6. Half-noble, *obv.* Series B, *rev.* Series A. No. 1 (p. 440).
Nos. 7, 8, and 9, reverses, Series A, showing different positions of the lis within and without the tressure.
No. 10. Noble. B/8.

Plate II (XVI).

- No. 11. Noble, *obv.* Series B, *rev.* Series C, reading $\text{Ih}\overline{\text{GSV}}$. B/12.
No. 12. Noble, *obv.* Series C, *rev.* Series B. Single annulet stops. G/11.
No. 13. Noble, Series C. $\text{Ih}\overline{\text{GSV}}$. H/13.
No. 14. Noble, Series C. K/24.
No. 15. Noble, Series C. $\text{IB}\overline{\text{T}}\text{T}^{\circ}$. Closed $\overline{\text{H}}$ in centre. M/28.
No. 16. Noble, *obv.* Series C, *rev.* Series D. $\text{IB}\overline{\text{T}}\text{T}^{\circ}$. Small $\overline{\text{H}}$ in centre. N/31.
No. 17. Noble, *obv.* Series C, *rev.* Series D. $\text{IB}\overline{\text{T}}\text{T}$. Large $\overline{\text{H}}$ in centre. L/30.

Plate III (XVII).

- No. 18. Half-noble, Series C, *obv.* only. Die 2. No reverses of Series C are known.
No. 19. Quarter-noble, Series B. No. 5 in list.
No. 20. Quarter-noble, Series B. No. 1 in list.
No. 21. Quarter-noble, *obv.* Series B, *rev.* Series C. No obverses of Series C are known.
No. 22. Quarter-noble, Series B. No. 2 in list.

- No. 23. Quarter-noble, *obv.* Series B, *rev.* Series E. No. 12 in list. No quarter-nobles of Series D are known.
- No. 24. Noble, *obv.* Series C, *rev.* Series E, with early R. O/32.
- No. 25. Half-noble, *obv.* Series C, die 2, *rev.* Series E (see p. 441).
- No. 26. Groat, Series B. No. 2 in list.
- No. 27. Groat, Series B. No. 3 in list.
- No. 28. Groat, Series B. No. 11 in list.
- No. 29. Piedfort of half-groat, Series B. No. 1 in list.
- No. 30. Half-groat, Series B. No. 6 in list.

Plate IV (XVIII).

- No. 31. Groat, Series B. No. 10 in list.
- No. 32. Groat, Series B. No. 13 in list (p. 444).
- No. 33. Groat, *obv.* Series B, *rev.* Series C. No. 9 in list.
- No. 34. Groat, Series B. No. 16 in list.
- No. 35. Groat, *obv.* Series B, *rev.* Series C. No. 19 in list.
- No. 36. Groat, Series C. No. 13 in list (p. 446).
- No. 37. Groat, Series D. No. 15 a in list.
- No. 38. Groat, Series D. No. 6 in list.
- No. 39. Groat, Series D. No. 21 in list.

Plate V (XIX).

- No. 40. Half-groat, Series C. No. 3 in list (p. 456).
- No. 41. Half-groat, Series D. No. 2 in list.
- No. 42. Half-groat, Series D. No. 6' in list.
- No. 43. Half-groat, Series D. No. 3 in list.
- No. 44. Half-groat, *obv.* Series D, square E in EDW *rev.* Series E with R for R. No. 1 in list.
- No. 45. Penny, *obv.* Florin type, *rev.* Series A. Durham (p. 424).
- No. 46. Penny, *obv.* Series A, *rev.* Florin type. Durham (p. 424).
- No. 47. Penny, Series A. Durham (p. 466).
- No. 48. Penny, Series A. London. No. 4 in list.
- No. 49. Penny, Series A. London. No. 2 in list.
- No. 50. Penny, *obv.* Series C, *rev.* Series A. No. 5 in list.
- No. 51. Penny, Series A. London. No. 6 in list.
- No. 52. Penny, *obv.* Series A, *rev.* Series C. No. 1 in list.
- No. 53. Penny, *obv.* Series C, *rev.* Series A. TKS. No. 6 in list.
- No. 54. Penny, Series C. No. 2 in list.
- No. 55. Penny, *obv.* Series C, *rev.* Series D. No. 3 in list.
- No. 56. Penny, Series D, with narrow G. No. 4 in list.

MISCELLANEA.

TWO UNPUBLISHED JEWISH COINS.



To discover anything new in the Jewish series after the publication of the B.M. Catalogue (Palestine) with its extraordinarily accurate description of the National Collection, which includes both the Wigan and the Hamburger coins, is in the nature of an achievement, and for that reason I venture to think that two coins of the Second Revolt which have recently come into my possession deserve a wider publication.

The first is an undated tetradrachm.

Obv.—Screen of the Tabernacle with the Ark of the Covenant: above star: on r. upwards and l. downwards inscription:

יְהוָה יָבוֹא

Border of dots.

Rev.—Bundle of twigs (lulab): around beginning below on r. inscription:

יְהוָה יָבוֹא

Border of dots

AR 1-1 ↑ Wt. 231 grs. (fig. 1).

The obverse is the same as the B.M.C., Pl. XXXII. 7, and shows the flaw in the centre of the arch: the reverse is slightly double struck, and the coin is in first rate preservation.

The remarkable feature is the absence of the citron (ethrog) on the left of the lulab on the reverse. Of this there is no possible doubt. The strongest glass reveals no traces.

Whether its absence is due to careless workmanship in cutting the die or to deliberate purpose with some sort of significance must remain an open question. The more obvious explanation is the former; in which case the coin must stand as a freak in the nature of a brockage or of those errors which are of no importance except to the frivolous among collectors.

The single argument for deliberate omission rests on the fact that otherwise the coin is well executed in its details.

The coin was bought by Messrs. Spink, from whom I obtained it, from Jerusalem.

The second is an overstruck denarius.

Obv.—Within a wreath, formed of almond-shaped objects, inscription:

יח
 יא

Border of dots.

Rev.—Bunch of grapes: inscription around:

On l. W, on r. upwards X^x3X. Border of dots.

R 8 \ Wt. 52 grs. (fig. 2).

There are traces of a previous inscription on either side. The coin is abominably struck with the most careless lettering, but despite this it is of the highest interest. If the debris of the inscription on the reverse is correctly read, then it is a coin of Simon of the first year. No other denarius of Simon of the first year has as yet been published. There is the hybrid denarius, B.M.C. 289/4, Pl. XXXIII. 7, with the obverse, grapes and inscription $\eta\omega\zeta\chi\zeta\Gamma\zeta\chi\theta\phi\chi\eta\omega$, which encourages the idea of a first year denarius of Simon, and if I have read the inscription on my coin correctly, then the obverse and the reverse on the B.M.C. specimen should be reversed; and though no tetradrachm of the first year with the name of Simon by himself is known, yet the combination of the two obverses in the B.M.C. 288/2, 3, Pl. XXXIII. 5, 6, and the hybrid mentioned above, give the actual types of my coin.

The hybrid of Eleazar and Simon must belong to the

first year, as obviously somebody struck a denarius of the first year or the B.M.C. hybrid 4 would not have existed. I feel no doubt in my own mind that the inscription is correctly read, and the coin is, so to speak, the background of the two B.M.C. hybrids. In any case, even supposing the reverse inscription not to be of the first year, but either of the second or undated, then its interest lies in the combination of types. Although there is almost every other conceivable combination of the various types, this is the first time that the wreath and grapes combination has appeared.

The coin was bought by a distinguished officer in the Air Force at Jerusalem some eighteen months ago, and I obtained it from him through Messrs. Baldwin, with some other interesting Jewish coins.

EDGAR ROGERS.

AN UNPUBLISHED DOUBLE-SILVIA OF CONSTANTINE JUNIOR.



MORE than usual interest attaches to a silver double-silvia of Constantine Junior which was discovered in a garden near the site of the Roman villa at Icklingham, Suffolk, in Sept. 1922.

The details of the coin are as follows :

Obv.—**FL. CL. CONSTANTINVS P. F. AVG.** Bust r., diad., dr., cuir.

Rev.—**CONSTANTINVS P. F. AVG.** Three standards; in ex., **TES.**

Weight, 64.25 grs. (4.16 grms.).

Size, 24 mm.

Silver coins of Constantine Junior are rare without exception. Cohen describes four types of silver of the small (50 grs.—3.24 grms.) denomination and six larger pieces, or "medallions", struck by Constantine as Caesar, but only gives three types of the smaller and none of the larger module struck by him as Augustus.

This piece is important, in the first place, as being the only example discovered hitherto of a double-siliqua issued by Constantine Junior as Augustus. Thus it fills a gap in the coinage of the period, and incidentally fixes the date of a group of double-siliquae struck by the three sons of Constantine the Great.

The two other coins which form this group are described by Cohen, and correspond with this coin of Constantine Junior in all respects.

(a) **FL. IVL. CONSTANS P. F. AVG.** Bust r., diad.,
dr., cuir.
Rev.—**CONSTANS P. F. AVG.** Three standards; in ex.,
TES. (C. vii, p. 404, no. 3.)

(b) **FL. IVL. CONSTANTIVS P. F. AVG.** Similar
bust.
Rev.—**CONSTANTIVS P. F. AVG.** Same type. **TES.**
(C. vii, p. 442, no. 22.)

Here we have a triad of double-siliquae identical in style, type, and mintage; identical too in the peculiar form of reverse legend, which repeats the imperial cognomen and title as given on the obverse. There can be very little doubt, therefore, that the three coins were struck at one and the same time, and may be regarded in the light of a special issue. A few historical considerations enable us to fix its date within narrow limits.¹

Constantine the Great died May 22nd, 337, leaving by his will Thrace and Macedonia to his nephew Delmatius, who was almost immediately murdered. Constantine's three sons were officially declared Augusti on Sept. 9th. In July (or August) 338, the three Augusti met at Sirmium to effect a partition of the Empire. Thrace, Macedonia, Constantinople, and the East were appropriated by Constantius, while Illyria and Africa were allotted to Constans and

¹ I am indebted to Sir Charles Oman for several useful suggestions as to the date and denomination of coins here noted.

Constantine respectively. The latter met his death at Aquileia in May 340.

After the murder of Delmatius his provinces (including the mint of Thessalonica) became derelict. None of the three surviving emperors were legally in possession of the mint until Macedonia formally passed into the hands of Constantius according to the terms of the partition made at Sirmium, Aug. 338. The mint masters at Thessalonica therefore, between the death of Delmatius and the formal partition of the Empire, may have thought it safer to issue coins of all the three brothers, of identical style and size, than to issue coins of one brother only, which would have been prejudicial to the partition.

This reduces the possible date limits of this group to rather less than a year, i.e. Sept. 337-Aug. 338; and if a particular occasion for the issue is to be sought, it seems more reasonable to suggest that it was probably at the beginning rather than the end of this period, when the brothers were formally declared Augusti.

It is perhaps not without significance that, with the exception of a double-siliqua of Constantine Junior as Caesar (C. 79), the "Three Standards" type only occurs on this Thessalonica group.

The far commoner "Four Standards" type, which it closely resembles, appears on large silver coins of Constantine the Great as Augustus (C. 106, 107, 108) and his three sons as Caesars. Examples of all four rulers occur with the m.m. **SMTR**; also of Constantine the Great with **CONSA** (C. 108), **SIS** (C. 109), and **SMTS** (C. 114); of Constantine Junior with **CONST** (C. 81), and of Constans with **CONST** or **SIS** (C. 17).

It would be tempting to see in the "Four Standards" a reference to the four rulers, Constantine and his sons, prior to the nomination of Delmatius as Caesar,² and in the "Three Standards" a reference to the three sons of Constantine as Augusti, after Sept. 337. The solitary coin of Constantine Junior (as Caesar) with "Three Standards" would then fall between these two dates.³ A difficulty,

² It may be suggested that this "Four Standards" group probably precedes the group of *N* and *R*, without *obr.* legend and with *rev.* type of Victory I., issued by Constantine the Great, his three sons, and Delmatius.

³ There is the possibility that corresponding coins of Constantius and Constans, with *three standards*, may yet come to light.

however, is presented by the recurrence of the "Four Standards" type on double-siliquae of Constantine as **AVG** or **PERP AVG** (C. 5, 6, 7, 8, 9) and Constantius Gallus (C. 20), when four rulers would certainly not have been acknowledged by Constantius.

As, however, in the case of the last-mentioned coin, the Standards are accompanied by the legend **GLORIA EXERCITVS**, it is perhaps better to connect the types, whether four or three standards, with the army rather than the *imperatores*.

EDWARD A. SYDENHAM.

REVIEWS.

Fitzwilliam Museum. Catalogue of the McClean Collection of Greek Coins. By S. W. GROSE. Vol. II. *The Greek Mainland, the Aegæan Islands, Crete.* Pp. 563, with 137 colotype plates. Cambridge University Press. £5 5s. net.

MR. GROSE'S second volume contains descriptions of 4,278 coins, and covers a field occupied in the British Museum Catalogue by seven volumes. Magnificent as the collection is, it is not in this portion so representative of the subject as was the Italian-Sicilian portion to which McClean had devoted most of his energy. It is not necessary here to do much more than welcome the appearance of the book, which has all the character of laborious accuracy and caution which students of the subject admire in Mr. Grose's work. We note a few very minute points in turning over the pages. P. 3. The female head on the coins of Neapolis in Macedon is usually called Artemis; we know from inscriptions that the local goddess was known as the Parthenos. Mr. Grose does not give his reasons for calling her Aphrodite. P. 172, note. It is not Pick but Mr. Grose who is in error. The coin of Nicopolis illustrated by Pick on his Pl. III. 21 is No. 1460; his 1331 is illustrated on Pl. III. 20. P. 481. One would like to be certain that the imperial coin of Tegea is intact. The Latin L on the obverse and the -ΩN (instead of -AN) termination are suspicious. Anyhow the N should be retrograde. P. 487. The reading BPIA (retrograde) on a Cnossian stater is probably correct for all coins of this group; the Ω which has been read in the fourth place on some coins seems to be illusory. The name sometimes takes the form BIP (metathesis or mere error?). Is some such name as Briakos or Briachos concealed here? —A word of praise is due to Mr. Emery Walker's plates, and of congratulation to all concerned on the production of this fine volume within three years of its predecessor.

G. F. H.

The Social and Economic History of the Roman Empire. By M. ROSTOVITZEFF, Professor of Ancient History in Yale University. Oxford, at the Clarendon Press, 1926.

It may safely be said that there are very few men alive who could have written an effective book on the very difficult and intricate subject here selected for study, and that there is perhaps none who could have accomplished the task with as much success as the distinguished author. It is a subject that did not particularly interest our authorities, and the literary translation, therefore, is fragmentary and scattered. At the same time a great deal of light is thrown on it by the abundant archaeological material; and it is not every man's task to handle that material with confident mastery. It would not be easy to find fault with Professor Rostovtzeff's general planning of his work. The main lines are firmly drawn, so that we can gain a clear picture of the social and economic history in its various stages. The ample documentation is reserved for an appendix of notes, while the reading of the book is made easier and more pleasant by illustrations of singular beauty and interest from the most varied sources. Both as a masterpiece of original research and as an inexhaustible storehouse of material the work is destined to a long career of usefulness and honour.

It has long been realized that the main interest of the Roman Empire for the modern world lies, not so much in its political history, as in the underlying movements in social and economic life. Looking at the Empire from this point of view, Professor Rostovtzeff sees a gradual breaking down of the privileges of the great senatorial families of Rome, culminating in the second century A. D. in an admirable government, resting on the support of the bourgeoisie and the city-population of the Empire. The strain of foreign wars, together with the decline in military spirit in the cities, forced the Emperors to recruit their armies more and more from the poorer peasants. The history of the third century is the history of the struggle of this proletarian army against the privileges of the classes. The Oriental despotism of Diocletian and Constantine sealed the victory of the army. But it was a victory in which the victors had little joy; for the State, sorely pressed in the struggle for existence, ruthlessly sacrificed the interests of all its subjects, without much discrimination. Some critics may think that the author has imported into his theme a little too much of the history of our own times.

What is certain is that he opens out to us many new paths of fascinating and profitable investigation.

Numismatic readers will be interested to know that Professor Rostovtzeff attaches a high value to the coins as evidence of general policy and tendencies and includes among his illustrations some six plates of coins, with comments on the lessons to be learned from them.

This is but a very slight and imperfect appreciation of a great scholarly achievement, which would need a much longer and more detailed criticism to do it justice. It is hoped, however, that it may lead many readers to make the acquaintance of the book for themselves. They will find it an abundant source of intellectual stimulus and aesthetic pleasure.

H. M.

1. JEAN BABELON. *La Médaille et les Médailleurs*. Pp. 235, with 32 plates. Paris, Payot. 1927.
2. *La Vita di Benvenuto Cellini*. Prefazione e Note, &c. PAOLO D'ANCONA. Pp. xxii+527, 15 plates and 135 illustrations, Milan, L. F. Cogliati.
3. *Matteo dei Pasti. La sua opera medagliistica distinta da quella degli anonimi riminesi del XV secolo in relazione ai medaglioni malatestiani aggiunte le falsificazioni*. Studio critico e catalogo ragionato di A. CALABI e G. CORNAGGIA. Pp. 139, with 83 colotype reproductions. Milan, Modiano. London, Spink. No date.

M. BABELON has written a sketch of the development of the medal from its beginnings at the end of the fourteenth century to the present time—a kind of new Bolzenthel. As was to be expected from the author, it is both readable and lively, and, especially in regard to French medals, very well informed. Of late years there have been plenty of books on the medals of the Renaissance, but a general description of what happened to this art after the sixteenth century has long been overdue. It cannot be said that the story is a cheerful one. After the seventeenth century the sole interest of the subject is technical, except in so far as the medals give illustrations, not too often veracious, of contemporary history. But of inspiration and feeling, such as often thrill us in the medals of the earlier period, there is an almost entire absence. It is a dead art, often brilliant enough, but without significance. Towards the end of the

nineteenth century, thanks especially to the influence of Frenchmen like Roty and Chaplain, there was an attempted revival; but it was ruined by triviality of conception, combined with a false technique (modelling on a large scale, using the reducing machine to cut dies, and treating the surface so as to disguise weaknesses and soften the sharpness which is proper to a die-struck piece); and the influence of the French school has accordingly not been for the good. One begins indeed to fear that any attempt to improve the art of the struck medal is doomed to failure. Meanwhile a few courageous people go on modelling for cast medals; in them, if anywhere, lies the sole prospect of salvation. We note a few points which have occurred to us in reading, and should be considered in a new edition. P. 19: To say that it was not until about the middle of the sixteenth century that medallists returned to the method of striking medals is misleading; many medallists from the sixties of the fifteenth century onwards experimented in the method, and from the beginning of the sixteenth it was quite well established. P. 28: Whatever may be the origin of the name *contorniate*, it is not so much the incised circle as the upturned edge which is characteristic of them. P. 29: The *oselle* of the Venetian doges were distributed annually in December, not on the doge's assumption of office. P. 41: The date 1397 for the birth of Pisanello is conjectural; 1395 or earlier has been suggested. P. 48: Pasti died in 1467/8, not in 1491. P. 50: The Machiavelli whose portrait appears on a Florentine medal in the style of Niccolò Fiorentino is not the famous statesman, but Pietro; there is indeed a forgery which bears the name of Niccolò Machiavelli. P. 53: The date 1528 given for the death of Sperandio, taken (like that for Pasti) from Armand, is wrong; he was almost too old to work in 1504, when he is last mentioned. P. 56: Giulia Astallia is "unicum exemplum for(mae)" not "for(titudinis) et pudicitiae"; in this mistake M. Babelon has only followed previous writers, including myself. P. 58: Does M. Babelon seriously think the medals of Bramante and Julius II by Caradosso are struck? And are they of a diameter "assez exigu"? P. 60: Is the medal of Riccio doubtless by himself? It bears no trace of his very individual style, and seems to allude to his death. Pp. 60-61: The medal of Louis XI illustrated in Pl. IX. 2 is a late restitution. Ibid.: The interpretation of the signature F. A. B. as Francesco da Brescia, first proposed by J. de Foville, does not bear a moment's serious

examination; the old interpretation Fra Antonio da Brescia is correct enough. P. 62: The attribution of the medal of Alidosi to Francia is exceedingly doubtful; where all is uncertain, the portraits of Musotti and Ruggieri have better claims. P. 79: The portrait by Memline at Antwerp of a man holding a coin of Nero is not in the least like Candida, as revealed on two medals. Whether it represents Niccolò Fiorentino, or indeed a medallist at all, is another question. Pp. 81-82: The medal of Aymar de Prie. It is interesting that M. Babelon speaks of this as if there were no doubt of its genuineness. Pp. 98 ff.: M. Babelon seems to lay too much stress on the relation of German medallists to the wood-carvers; the Nuremberg goldsmiths had a great deal to do with the school. P. 127: The physician portrayed by Nicolas Briot was Théodore de Mayerne, not Mayenne. P. 132: Henri de Maleyssic was governor of Pinerol, not Périgord. P. 183: The medal of John Kendal is dated 1480, not 1481. P. 184: The medal of Thomas More is a mere forgery. What evidence is there that Jonghelinck worked for the English court? The medal of the Armada, if it was made by Hilliard, was at any rate not "gravé" by him; it is cast and chased. A word of praise should be given to the admirable plates; they are all photographed directly from the medals. This has only one disadvantage, that the specimens within reach of any one publisher are not always the best, and hence choice is limited. There is no index to the book—a serious defect, since the order in which medallists are mentioned is sometimes hard to understand; thus Bertoldo is mentioned not among the Florentines, but between Melioli andENZOLA!

This is hardly the place to do more than welcome Professor Paolo d'Ancona's attractive edition of the ever-entertaining *Autobiography* of Cellini. The numerous illustrations are drawn from all sorts of contemporary sources; among them will be found the coins and medals for which Cellini was responsible. The editor is wisely cautious; of the Bembo medal he rightly says that it is doubtful whether Cellini ever finished it; recent criticism has disposed of Cellini's authorship. As to the medal of Ercole II d'Este, the finished specimen in the British Museum might have been illustrated instead of the trial casting at Weimar, though neither has the reverse. The editor makes a brave and genial defence of his subject—*mauvais sujet* he might well be called. But we must continue to doubt whether Cellini would have won anything like the reputa-

tion he has as an artist, if he had not been such an incomparable story-teller. The judgement of the average man is incurably dependent on literature. But the editor's polemic against the critics is well worth reading. As he remarks, every one looks at the Perseus, but no one looks at the two immense statues which stand so near it in the Piazza della Signoria, the Hercules of Bandinelli and the Neptune of Ammanati. No, even if these two sculptors had been able to write like Cellini, we doubt whether their works would have been popular.

The third book on our list is a handsome publication, of which only 300 copies have been issued. It contains (1) a brief critical appreciation of the artist; (2) a list of the medals which the authors consider genuinely his, arranged chronologically; (3) a list of medals which they ascribe to anonymous Riminese artists of the fifteenth century, and which they classify in periods from 1451-56, 1456-60, 1460-68; (4) a list of the marble portraits and other subjects in relief in San Francesco at Rimini, which they similarly group in periods from 1447-50, 1454-60, 1460-68; (5) a list of medals which they consider to be forgeries of the sixteenth, seventeenth, eighteenth, and nineteenth centuries; (6) a table setting forth the inscriptions (with concordance to the lists of Armand, Heiss, and Hill); (7) a chronological statement of events connected with Pasti's life; and (8) a series of fine reproductions of the medals and other works described, sumptuously done, as a rule one medal to a plate. To discuss all these subjects in the detail that they deserve would take a whole part of the *Chronicle*. Never has a medallist's work been subjected to so careful and acute an examination: all the peculiarities of his style, his composition, his treatment of planes and proportions, his handling of inscriptions and their formulae, are searchingly studied. The result is that the authors come to certain very rigid conclusions as to what is Pasti's work and what is not, and that, for instance, the medal of Alberti, and probably too the obverse of the medal of Christ are denied to him. Most critics will feel that the limits which the authors have drawn are too hard and fast; perhaps the ideal Pasti is within them, but the actual man may sometimes have strayed outside and done something that he ought not. All the unsigned medals are classified as the work of anonymous Riminese. If rightly so, we can only exclaim that Pasti's school was remarkable in producing men who could imitate, and perhaps occasionally better,

their master's style to a degree unheard of elsewhere. The descriptions, as already stated, are done with great care and detail. The diameter is given in the ordinary way, and a further internal measurement is as a rule added, thus: "between the base of the P(andulfus) and that of the E(clesie), 67,5". External diameters are, as everybody knows, exceedingly deceptive, because in casting a larger or smaller margin may be left outside the edge of the work. The internal measurement avoids this accidental element. The objections to it are the amount of time required to take it, and the amount of printing required to record it; as to the last, however, the record could equally well be put thus: "P(an)—E(el) 67, 5", as long as it is generally understood that measurements are taken from the bases of letters. Of course even these internal measurements are liable to mislead, since a quite modern cast may preserve the original dimensions. After all, an experienced eye is the best means of judging the age of a medal. The authors mention only one specimen of each medal; they have travelled far and wide to find good ones. Yet we cannot think that they have always chosen well. The Guarino (no. 1) is a thoroughly weak and woolly cast; it is described as a re-cast, but it surely deserves even a worse name. There are other medals in the plates for which one would think better casts, even if not originals, could have been found, such as the small Isotta (no. 8), the small Sigismondo (no. 4 of the Anonimi). In the chronological table it is to be observed that although the Sultan's request for Pasti to go to Constantinople is recorded in 1461, we are not told that he actually started, though he only got as far as Candia, where he seems to have made indiscreet remarks of a political nature which resulted in his being sent home. But it will not do to conclude these remarks on a note of fault-finding; every student of Italian medals ought to be grateful to Dr. Calabi and Count Cornaggia for their monograph, which for the first time in the history of the study of Italian art attempts to supplement serious critical appreciation of a medallist with adequate illustration.

G. F. H.

Select Greek Coins. A series of enlargements illustrated and described by GEORGE F. HILL. Paris and Brussels. Librairie nationale d'Art et d'Histoire. G. Vanoest, Publisher. Pp. 61; 64 Plates. £3 3s.

This book is one of an international series, illustrating various branches of art, which we owe to the enterprise of M. G. Vanoest. In it the Keeper of the National Collection treats of Greek coins purely as works of art, and, to enable those who have not handled and studied them before to realize most easily this aspect of their composite interest, he has made two bold experiments. The collotype illustrations have been reproduced from photographs of the original coins, not, as is usual, of plaster casts; and the photographs themselves are magnified three dimensions. The book is thus primarily a picture-book though each coin is briefly described, and, what is especially welcome, as closely dated as possible.

The short introduction, though it disclaims the intention of treating the development of coins as works of art, is full of suggestive matter and the general reader will find it more enlightening than many more elaborate works. Particular attention should be drawn to the account of the various borders and their occasional survivals into Byzantine times, a sketch which breaks new ground.

The experiment of direct photography from the coins leaves us in some hesitation. It certainly does give the effect of the metal surface, and, owing to the omission of the two intermediate processes involved in casting, should give an extra sharpness to the detail. In the coin itself the high lights reflected on its surface are an added beauty; by turning it in our hand we can set them in motion and illuminate now one part now another. In these reproductions, where this pleasure is denied us, their immobility becomes a little teasing. It is more serious that chance reflections can on occasion lend the outlines, or some of them, a vagueness which is not present in the original and which the dull surface of a cast would have prevented. The same cause, doubtless reinforced by enlargement, is also apt to accentuate the technical defects of double-struck coins even where double-striking is so slight as to be barely noticeable in the original. But direct photography is a minor matter compared with enlargement. At first sight it might seem somewhat inconsistent for so relentless an opponent of the use of the reducing machine in the manu-

facture of modern coins and medals, to adopt an inversion of the same method for the illustration of ancient ones. The ordeal by magnification is a cruel one, and, if the engraver, whose work it spoils, calls it unfair into the bargain, we can give him no logical answer. But, as Mr. Hill points out in a disarming preface, the method is already conceded in the continual use of the magnifying glass to which most of us resort; and it may sometimes reveal details which are apt to escape the naked eye, for instance the tongue of the bull licking his flank on a coin of Gortyna (Pl. LV. 4). After all we look at the Elgin marbles, designed to be seen from 30 feet below, point-blank at eye-level, and they are all the better for it. The method must be judged by its successes not by its failures.

The effect of enlargement is to emphasize either the strength or the weakness of the original, and, as a rule, it is most successful where the subject was conceived in a bold and sculpturesque fashion. This is especially noticeable in the magnificent creations of the later fifth century, for instance the Dionysus head of Naxos (Pl. I. 2), the second Apollo head of Catana (I. 4), the nymph of Himera (XXXVIII. 6), the charming little resting Hermes of Pheneus (XLI. 6), the Silenus of Mende on his mule (XLVII. 2), the eagle's head at Elis (LVII. 4). For the same reason, on quite late coins, the heads, especially such portraits as that of Mithradates III of Pontus or of Orophernes (XIII. 2, XV. 2), often gain considerably, though the enlargement only emphasizes the poverty and weakness of their reverses; witness the well-known type of Antigonus Gonatas—Apollo seated on the prow (XLVI. 5). On the other hand the more picturesque creations of the Syracusan school with their variously rich coiffures do not fare so well. Though Kimon's work (even the facing Arethusa head) stands the test bravely, in general the elaboration of the design becomes too obvious on the larger scale. This is notable in the decadrachms of Evaenetus and the New Artist. A remarkable exception is the coin of Gortyna already cited (XLIII. 3, LV. 4). This is one of the most successful enlargements in the book though the treatment of the type is highly pictorial—in the foreshortening on both sides of the coin, in the drawing of the tree in which the goddess sits, even perhaps in the disposition of the legend, which accident or design has so arranged beneath the bull's feet as to suggest the flowers of the meadow in which he is walking. It is such successes

(and there are many of them, especially among the animal types) which will commend the book to art lovers, and those of them who may have hitherto regarded Greek coins rather as pocket playthings will be surprised at the grandeur and dignity of the best work.

E. S. G. R.

Historical Studies in Mughal Numismatics. By Professor S. H. HODIVALA. Pp. 376. Calcutta. Published for the Numismatic Society of India, 1923. £1.

Professor S. H. Hodivala is a distinguished authority on the Mughal period of Indian history and at the same time a student of numismatics. In this volume of twenty-four essays on points suggested by the coinages of the Mughal Emperors, he brings to his subject a thorough knowledge of the Persian historians and a wide acquaintance with the works of contemporary European visitors to India. In him the historian and numismatist are combined in a unique fashion and the result is a volume which, to those who do not know Professor Hodivala's energy, might seem to be the work of a syndicate.

In the first essay he collects references to the coin known to Bābur as a *shāhrukhi* and shows that he applies the name to his coins of "Central Asian fabric". The very large number of Shāhrukh's silver coins that still survive show that they formed a popular currency and the name must have survived for similar coins struck by his successors. The second essay deals at length with Akbar's Ilāhi Era and is the first thoroughly satisfactory treatment of the subject. In dealing with "Abū'l-Fazl's Inventory of Akbar's Coins" the writer corrects many old errors. The article on "Gigantic Coins" collects many curious European and Persian references to these extraordinary issues, and no one can doubt the conclusion that they were never intended for currency but were presentation pieces. The discussion of the legend *Allāhu Akbar* is an important contribution to the study of Akbar's religious ideas. Four denominations, the *darb*, *charn*, *tankā*, and *mahmūdī* are next discussed with great fullness and identified. Jahāngir's coinage forms the subject of the next articles, "Heavy Coins", "Portrait Muhrs", and "Zodiacal Coins"; here again the writer's extensive knowledge of Persian sources enables him to throw much new light on these extraordinary issues. The same may

be said of Professor Hodivala's discussion of the *niṣār*, the small coins made for presentation purposes or, as their name implies, for "scattering". Metrological problems are dealt with in the discussion on the value of the *ashrafi*, *tīmān*, and *tola*. A short article on the standard of fineness of Mughal coins is the first treatment of a subject which seems to be worthy of further investigation. The long article on the detailed "Chronology of the Mughal Emperors" and their "Imperial style and titles" are contributions to Mughal history of the first importance. The space they occupy gives no idea of the amount of research that has been involved in their preparation.

References to coin-distichs in literature form the subject of another article, and it is interesting to find that the collector has still to discover some coins with couplets, so far only recorded by the historians. Another collection of passages of interest to the coin-collector is the last essay in the volume on "*Khuṭba and Sikka*" in which Professor Hodivala collects a number of statements about coins having been struck or the *khuṭba* said (and coins possibly struck), the accuracy of which has not yet been confirmed by the finding of the coins in question. There is no doubt that more of these, for the present hypothetical, issues will turn up in time, as one did a few years ago—the muhr of *Shāh Jahān* of *Balkh* mint. The author concludes with a conspectus of passages quoted, arranged under historians.

In conclusion we would like to insist that the book is not of interest merely to the coin-collector. It is indispensable alike to the student of economics and to the historian of India in the Mughal period. Professor Hodivala's laborious researches and careful winnowing of facts will save a vast amount of labour in the future, and he has earned the gratitude of all who labour in a field on which he is a distinguished authority.

J. A.

INDEX.

A.

- Aegean Mints, 137-153
 Aelia, Empress, coins of, from Egypt, 88
 Aethelred II, coins of, found in Norway, 282-285
 Agrigentum, coins of, in the Evans Collection, 11-13
 Ahmad Shāh, Mughal Emperor, coins of, 407-411
 Aischrion, magistrate of Cos, 125
 Akbarābād, square rupee of Shāh Jahān of, 367
 'Alam I, coins of, 395-397
 'Alam II, coins of, 411
 Alexander the Molossian, coins of, 154-231
 Alexius I (?), unpublished bronze coin of, 340
 ALLAN, JOHN:—
 Notice of Hodivala's Historical Studies in Mughal Numismatics, 485
 Amathus, coin of Epipalos of, 127
 Anactorium, pegasi of, 316-317
 Anastasius, unpublished coins of, 337
 Ambracia, pegasi of, 310-315
 d'Ancona, Paolo, *Notice of his Vita di Benvenuto Cellini*, 480-481
 Antiochus V, tetradrachm of, with monogram ΑΓ, 129
 Antoninus Pius, rare coins of, 331-332; bronze coin of Eresus of, 123
 Apollonia Pontica, tetradrachm of, 118
 Arcadius, coins of, from Egypt, 77-85
 Argos, iron coin of, 122
 Aristoxenos, engraver at Heraclea, 4
 Augustus, coins of, restored by Trajan, 257; by Titus, 322
 Aurangzeb, coins of, 384-393
 Axum, coin of Ousannas of, 134-135; bronze coins of, 135-136
 A'zam Shāh, coins of, 393-395
 'Azimu-sh-shān, coin of, 398.

B.

- Babelon, Jean, *Notice of his La Médaille et les Médailleurs*, 478-480
 Bahādur Shāh, coins of, 416
 Balkh, a mint of Shāh Jahān, 364
 BARNARD, F. PIERREPOST:—
 Forgery of English Copper Money in the Eighteenth Century, 341-360
 Bedār Bakht, coins of, 412
 Bowes, Thomas, Warden of the Mint, 107
 Bristol Mint under Edward IV, 105, 110
 British Museum Greek Acquisitions 1925, 117-136
 "Brummagem", forgeries of English copper money, 351-352
 Buca, Lucius, "Sulla's dream" denarius of, 36-42

C.

- Calabi, A. and Cornaggia G., *Notice of their Matteo dei Pasti*, 481-482
 Calais Mint under Edward IV, 112
 Canterbury Mint under Edward IV, 111-112
 Charles, Chaffrey, medal of, 93-98
 Carosino find, 218
 Carystos, early coins of, 143-145
 Catana, coins of, in the Evans Collection, 13-14
 Caulonia, coin of, in the Molossian find, 216
 Caunos, coins attributed to, 150-152
 Choirion, engraver at Catana, 13, 15
 Citium, gold stater of Pumiathon of, 126
 Claudius, coins of, restored by Trajan, 258
 Commodus, unpublished as of, 334
 Constans, coins of, from Egypt, 65-71

Constans II (Byzantine Emperor), solidus of, 339
 Constantine I, coins of, from Egypt, 65-71
 Constantine II, coins of, from Egypt, 65-71
 — double-siliqua of, 472-474
 Constantius II, coins of, from Egypt, 65-71
 Coreyra, pegasos of, 315
 Corinth, pegasi of, 315-321; coinage of, from 338-223 B.C., 20-36
 Cos, didrachm of, 125
 Cyprus, coins of, acquired by the British Museum, 126-129

D.

Dāwar Bakhsh, coins of, 361
 Delhi, named Shāhjahānābād, 365
 Delmatius, unpublished coin of, 337
 "Dirhams, legal" of Aurangzeb, 390-391; of Farrukhsiyar, 401
 Domitian, rare coins of, 327-328

E.

Edward III, coinage of from 1351, 417-469; London Mint, 433; York Mint, 433, 462; Canterbury Mint, 433; table of dies of nobles, 446; legends of nobles, 437-440; of half-nobles, 440-441; of quarter-nobles, 442; of London groats, 442-458; of London pennies, 458-463; of York silver, 462-465; of Durham pennies, 466-467
 Edward IV, mint accounts of, 99-112
 Egypt, gold coin of Tachos of, 129-132; gold coins with hieroglyphs, 132-134; currency of, in the fifth century, 43-92
 Eminakos of Scythia, stater of, 117
 Epipalos of Amathus, coin of, 127
 Epirus, coins of Alexander of, 154-231
 Eresus, bronze coin of Antoninus Pius of, 123
 Eryx, pegasos of, 309-310
 Euagoras II of Cyprus, coin of, 127

Eudoxia coins of, from Egypt, 85
 EVANS, SIR ARTHUR :—
 Select Sicilian and Magna-Græcian Coins, 1-19

F.

F. A. B., Italian medallist's signature, 479-480
 Farrukhsiyar, coins of, 399-401
 Faustina Sen., rare coins of, 332-337
 — Jun., rare coins of, 333-334
 Finds of coins :—
 Carosina (Greek), 218-222
 Hawara (fifth-century Roman), 45 ff.
 Icklingham (Roman), 472-475
 Kom Washim (fifth-century Roman), 44 ff.
 Molossian find from Southern Italy, 211-217
 Olbia (staters of Eminakos), 117-118
 Qau-el-Kebir (fifth-century Roman), 44 ff.
 Stein, Norway (Medieval), 279-286
 Flaccilla, coins of, from Egypt, 80
 FONAHN, A. :—
 Notes on a Hoard of Medieval Coins found at Stein, Ringrike, Norway, 279-286
 Freeman, Kathleen, Notice of her *Life and Work of Solon*, 304

G.

Galba, rare bronze coins of, 324-325; coins restored by Trajan, 258
 Gela, coins of, in the Evans Collection, 14-16
 Gratian, coins of, from Egypt, 74-76
 Grose, S. W., Notice of his *McClean Catalogue*, Vol. II, 476

H.

HAINES, G. C. :—
 Some Rare or Unpublished Roman and Byzantine Coins, 336-340
 HALL, H. P. :—
 A Note on the Fabric of Ptolemaic Bronze, 301-302
 Hastings, Lord William, master-

- worker at the Mint, *temp.*
Edward IV, 101
- Hawara, find of Roman coins at,
45
- Heraclea, didrachm of, in the
Evans Collection, 4; coins of,
in the Molossian find, 212-214
- Herbessos, coins of, in the Evans
Collection, 18-19
- Hered the Great, monogram P
on his coins, 299-300
- HILL, GEORGE F. :—
Chaffrey Carles, 93-98
Greek Coins Acquired by the
British Museum in 1925, 117-
136
Medals of Turkish Sultans, 287-
298
Notice of K. Freeman, *Life and
Work of Solon*, 304
Notice of W. H. Waddington,
Recueil Général, &c., Vol. I, 1²,
303
Notice of S. W. Grose, *McClellan
Catalogue*, Vol. II, 476
Notice of Jean Babelon, *La
Médaille et les Médailleurs*, 478-
480
Notice of Paolo d'Ancona, *La
Vita di Benvenuto Cellini*, 480-
481
Notice of A. Calabi and G. Cor-
naggia, *Matteo dei Pasti*, 481-
482
- Hill, George F., Notice of his
Select Greek Coins, 483-485
- Hodivala, S. H., Notice of his
*Historical Studies in Mughal Nu-
mismatics*, 485-486
- Honorius, coins of, from Egypt,
80-84
- Hunkin, J. W., Note on a Mono-
gram on certain coins of Herod
the Great, 299-300
- I
- Icklingham, double-siliqua of Con-
stantine Jun. from, 472-475
- Ionia, electrum of, 123-124
- J
- Jahāndār, coin of, 399
- Jewish coins, unpublished, 470-
472
- Jovianus, coins of, from Egypt, 72
- Julia Mamaea, bronze coin of, 334
- Julian II, coins of, from Egypt,
65-77
- Julius Caesar, coins of, restored
by Trajan, 256
- Justinian I, rare coins of, 337-
339
- K
- Kal - -, engraver of Tarentum,
193-205
- Khurram, a name of Shāh Jahān,
362-363
- Kom Washim, find of coins from,
44
- Kratesippus, engraver of Rhe-
gium, 8
- L
- Lapethus, new coin of, in British
Museum, 128
- LAWRENCE, L. A. :—
The Coinage of Edward III from
1351, 417-469
- Leo I, coins of, from Egypt, 88
- Leucas, pegasi of, 318-321
- Lucius Verus, rare coin of, 334
- Lydos (?), engraver of Metapon-
tum, 5
- M
- Magnus Maximus, coins of, from
Egypt, 78
- Marcianus, coins of, from Egypt,
88
- Massy, Col. W. J., coins from his
collection acquired by the
British Museum, 126-129
- MATTINGLY, HAROLD :—
Notice of E. A. Sydenham, *Ass
Grace*, 113-114
Notice of M. Rostovtzeff, *The
Social and Economic History of
the Roman Empire*, 477-479
Restored Coins of Trajan, 232-
278
- McClellan Collection, *Catalogue of*,
Vol. II, Notice of S. W. Grose's,
476
- Megara, early coins attributed to,
139-143

- Melos, early coins of, 145, 146
 Mende, staters of, in the British Museum, 119-120
 Mesma, bronze coin of, in the Evans Collection, 7
 Messana, tetradrachm of, in the Evans Collection, 9-11
 MESSENGER, LEOPOLD G. P. :—
 A Note on Some Unpublished Roman Bronze Coins, 322-335
 Metapontum, staters of, in the Evans Collection, 4-6; coins of, in the Molossian find, 214-215; coins of Alexander of Epirus struck at, 167
 MILSK, J. GRAFTON :—
 The Currency of Egypt in the Fifth Century, 43-92
 Montgomery, T., Warden of the Mint, *temp.* Edward IV, 101
 Muhammad Akbar, coins of, 412-415; as claimant to the Mughal throne, 412
 Muhammad Shah, coins of, 404-407
 Muhammad II, the Conqueror, medals of, 287-295
 Murād Bakhsh, coins of, 383-384

N.

- Nero, rare bronze coins of, 324
 Nerva, rare coin of, 335; coins of, restored by Trajan, 259
 Nisars of Shāh Jahān, 369-376; of Aurangzeb, 387-390; of Jahāndār, 399
 NOTICES OF BOOKS :—
 d'Ancona, Paolo, *Vita di Benvenuto Cellini*, 480-481
 Babelon, Jean, *La Médaille et les Médailleurs*, 478-480
 Calabi, A., and Cornaggia, G., *Matteo dei Pasti*, 481-482
 Freeman, Kathleen, *Life and Work of Solon*, 304
 Grose, S. W., *Catalogue of the McClean Collection*, Vol. II, 476
 Hill, George F., *Select Greek Coins*, 483-485
 Hodivala, S. H., *Historical Studies in Mughal Numismatics*, 485-486

- Rostovtzeff, M., *The Social and Economic History of the Roman Empire*, 477-478
 Sydenham, E. A., *Aes Græve*, 113-115
 Waddington, W. H., *Recueil Général des Monnaies Grecques d'Asie Mineure*, I, 1², 303-304

O.

- Olaf the Holy of Norway, coins of, 279-282
 OMAN, SIR CHARLES :—
 Some Problems of the Later Coinage of Corinth, 20-35
 Sulla or Endymion (?), 36-42
 Onasioikos (?) of Paphos, staters of, 128
 Ousannas of Axum, gold coin of, 134-135

P.

- Paphos, drachm of, with legend Παγ, 126; staters of Onasioikos of, 128
 Paros, early coins of, 147-149
 Peirandrides (?), magistrate of Samos, 124-125
 "Pegasi", rare, in the Ravel Collection, 305-321
 Pertinax, rare coin of, 335
 Phocas, rare coins of, 338-339
 Posidonia, coins of, in the Evans Collection, 6
 Postumus, rare bronze of, 336
 Protesilas, tetradrachm of Scione with name of, 120
 Ptolemaic bronze, fabric of, 301-302
 Pumiathon of Citium, gold stater of, 126
 Pythagoras, engraver of Rhegium, 8

Q.

- Qau-el-Kebir, find of fifth-century Roman coins at, 44

R.

- Rafī u-d-Darajāt, coin of, 402
 Rafī u-d-Daulah, coins of, 402-404

RAVEL, O. :—

Notes on Some Rare and Unpublished "Pegasi" of my collection, 305-321

Reed, Bartholomew, appointed master-worker at the Mint in 1482, 101

Rhegium, tetradrachms of, in the Evans Collection, 7-9

ROBINSON, E. S. G. :—

Notice of G. F. Hill, *Select Greek Coins*, 483-485

ROGERS, EDGAR :—

Two Unpublished Jewish Coins, 470-472

Rostovtzeff, M., Notice of his *Social and Economic History of the Roman Empire*, 477-479

S.

Salamis, bronze coin of Euegoras II, 127

Samos, tetradrachm of, in British Museum: magistrate Peirandrides (?), 124-125

Sappho, head of, on coin of Ereus, 123

Scione, tetradrachm of, with name of Protesilas, 120-122

Seleucus III, tetradrachm of, 129

Selim I, medal of, 295-296

Shāh Jahān (I), coins of, 362-379

— (II), see Raft' u-d-Daulah

— (III), coins of, 411

Shāh Shujā', coins of, 380-383

Shaw, Edmund, graver at the Mint (1462-82), 101

SELTMAN, C. T. :—

Aegean Mints, 137-153

Simon bar Kochab, denarius of year 1 of, 471

Snawshill, William, Keeper of the Mint at York, temp. Edward IV, 110

Stein (Ringerike, Norway), medieval coins found at, 279-281

Stratos, pegasos of, 315

Suleiman II, medals of, 296-299

Sulla, denarius of L. Buca relating to, 38-42

SYDENHAM, E. A. :—

An Unpublished Double-Siliqua of Constantine Junior, 472-475

Sydenham, E. A., Notice of his *Aes Græve*, 113-115

SYMONDS, HENRY :—

Mint Accounts and Documents of Edward IV, 99-112

Syracuse, coins of, in the Evans Collection, 17-19

T.

Tachos, rebel in Egypt, gold stater of, 129-132

Tarentum, didrachms of, in the Evans Collection, 1-3; in the Molossian find, 212; coins of Alexander of Epirus struck at, 158-167, 170

Theodosius I, coins of, from Egypt, 75-83

— II, coins of, from Egypt, 86-87
Thessalonica, double-siliqua of Constantine Junior, struck at, 472-475

Thurium, stater of, with serial letter H, 117; coins of, in the Molossian find, 215

Tiberius, coins of, restored by Trajan, 258; by Titus, 323

Tigranes (?), monogram of, on a coin of Herod, 300

Titus, coins of, restored by Trajan, 259

— restores coins of Tiberius, 323
Tower Mint under Edward IV, 103, 104, 106

Trajan, rare coins of, 329-330; the restored coins of, 232-278

V.

Valens, coins of, from Egypt, 72-74

Valentinian I, coins of, from Egypt, 73, 74

— II, coins of, from Egypt, 75-79

Velia, coins of, in the Molossian find, 216

Verina, coins of, from Egypt, 88

Vespasian, coins of, restored by Trajan, 258

Vitellius, rare bronze coins of, 325-326

- | | |
|--|---|
| <p>VLASTO, M. P. :—
 Alexander, Son of Neoptolemus,
 of Epirus, 154-231</p> | <p>Mughal Emperors of India,
 Part II, 361-416
 Wode, John, Warden of the Mint,
 (1468-76), 101</p> |
| <p>W.</p> | |
| <p>Waddington, W. H., Notice of
 his <i>Recueil Général</i>, &c., I, 1^a,
 303-304</p> | <p>Y.</p> <p>York Mint under Edward III,
 433; under Edward IV, 101</p> |
| <p>Z.</p> | |
| <p>WHITEHEAD, R. B. :—
 Some Notable Coins of the</p> | <p>Zeno, coins of, from Egypt, 88</p> |

END OF VOL. VI.



1



2



3



4



5



6



7



8



9



10



11



12





13



14



13



16



15



16



18



17



20



19



21



22



21



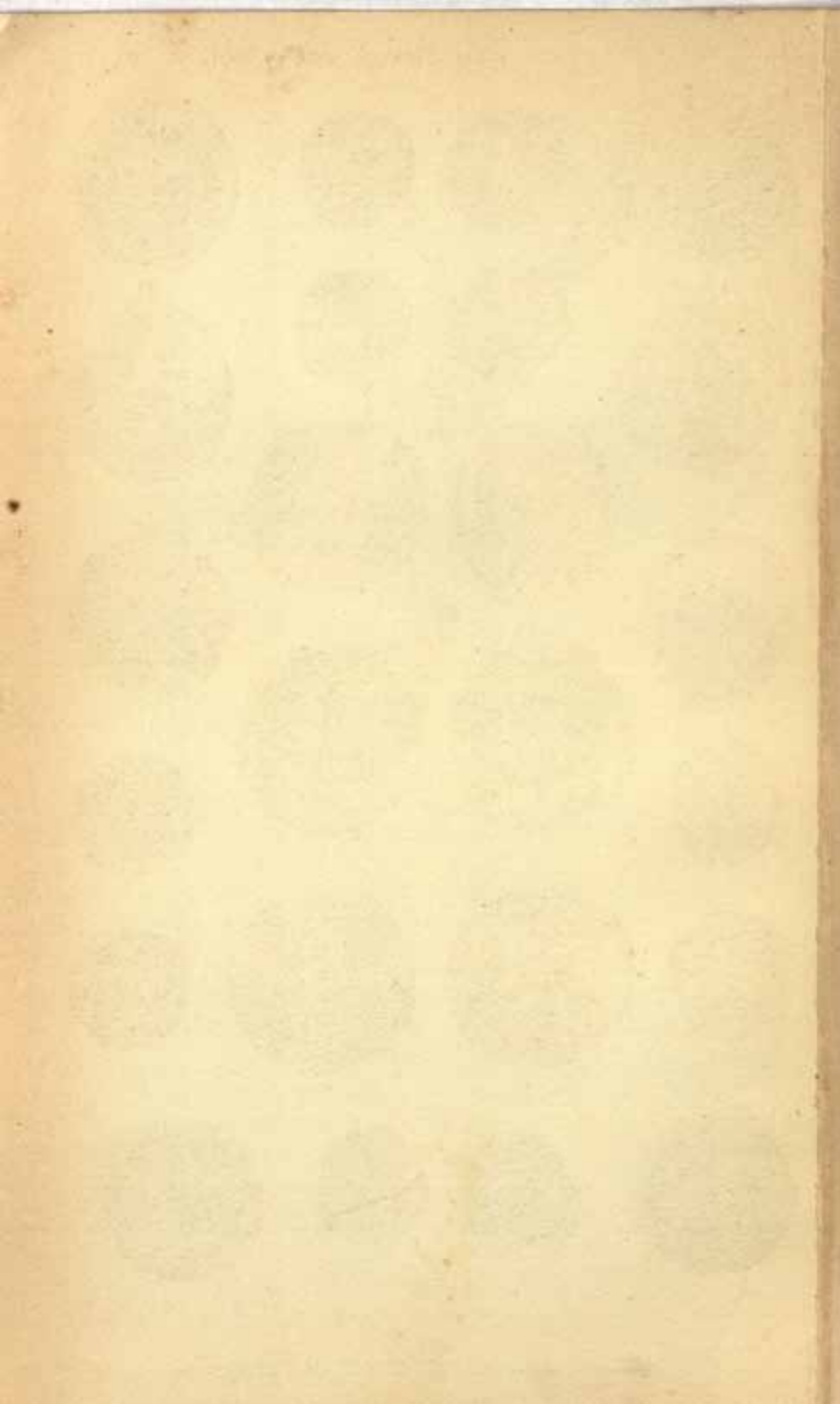
23 a



23



23 a





24



25



24



26



26 a



26



28



27



28



30



29



30



30 a



29 a



30 a



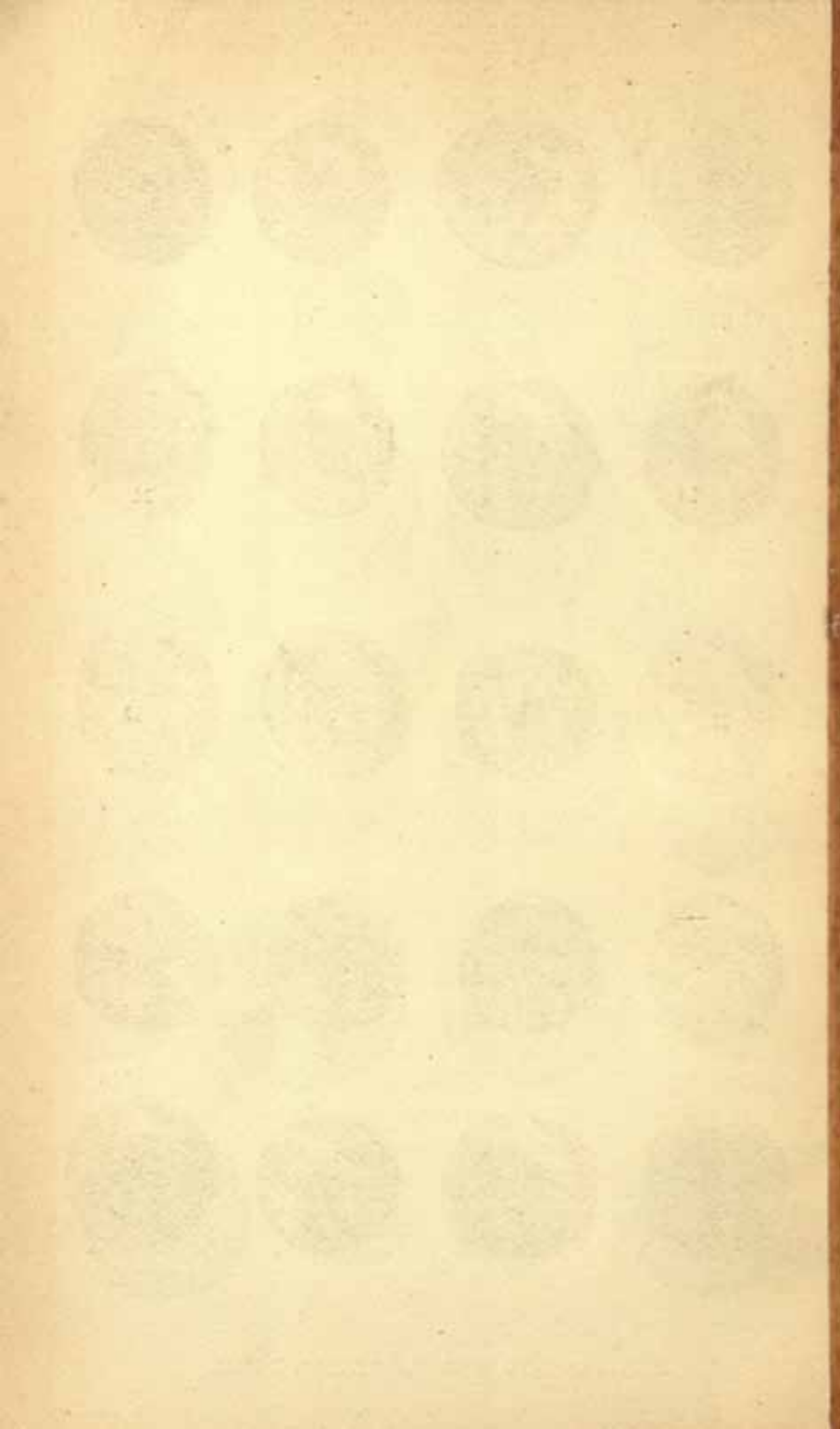
32



31



32





1



2



3



4



5



6



7



8



9



10



11



12



13



14



15



16



17



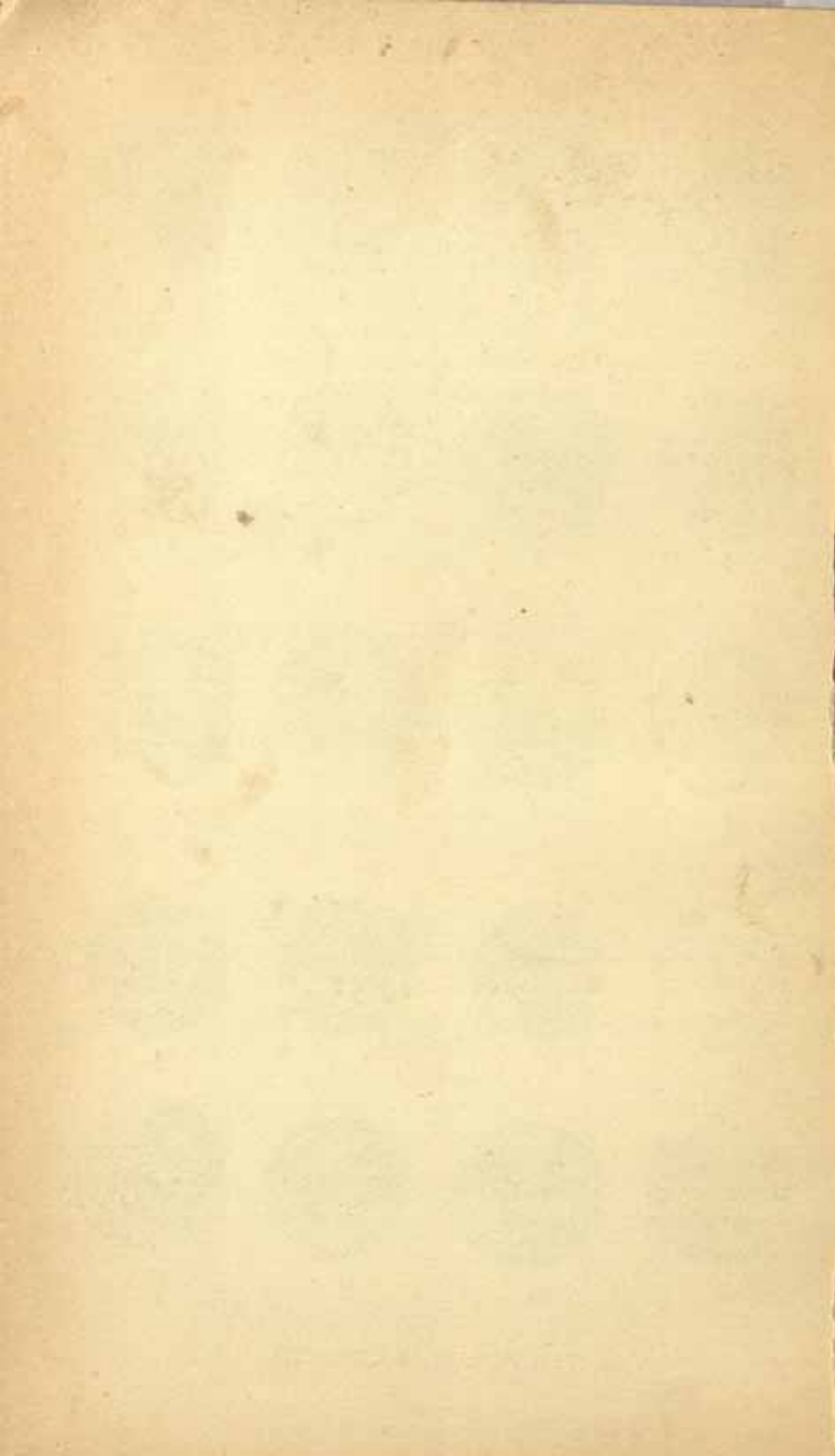
18



19



20





1



2



3



4



5



6



7



8

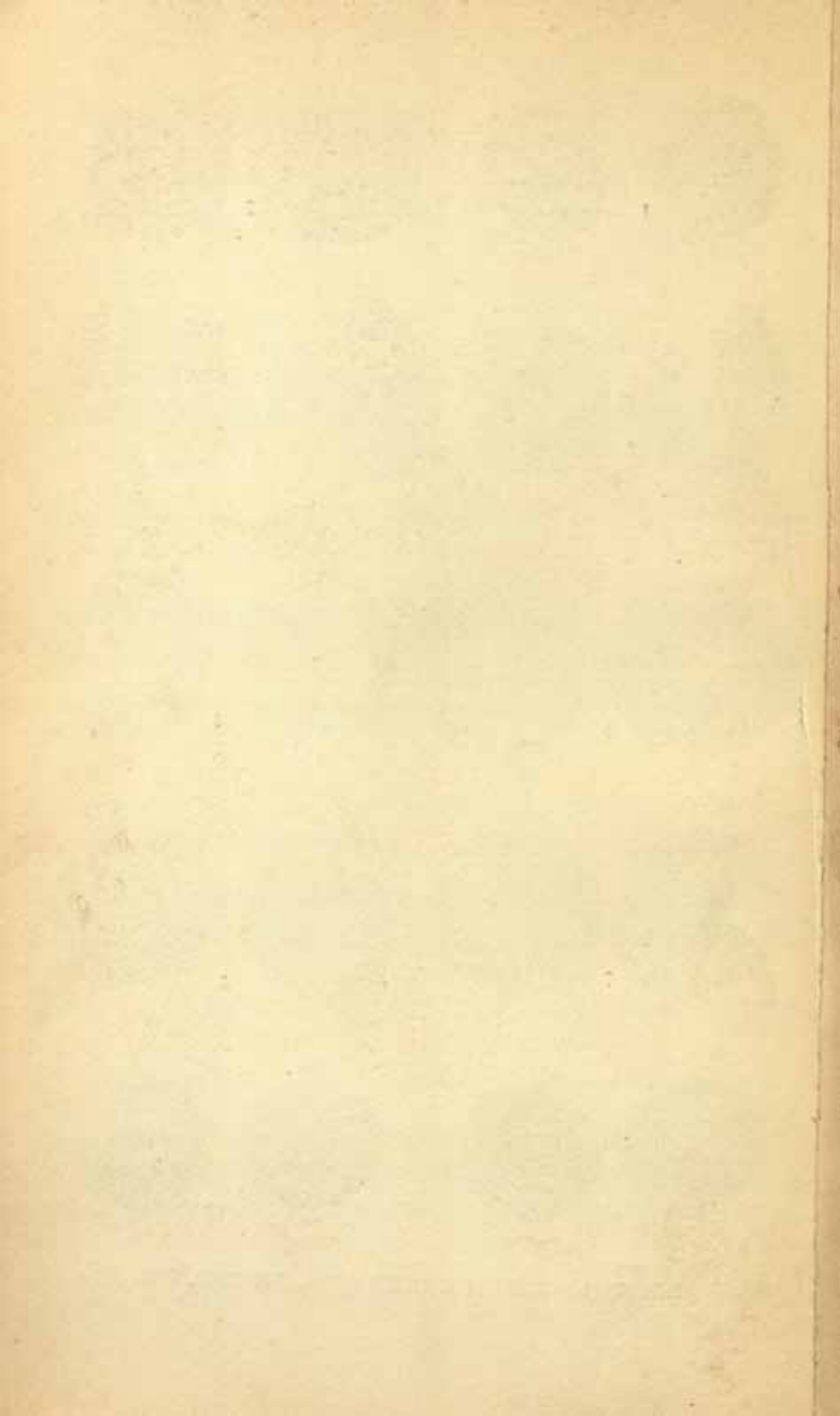


9



10







11



12



13



14



15



17



16



18



20



21



22

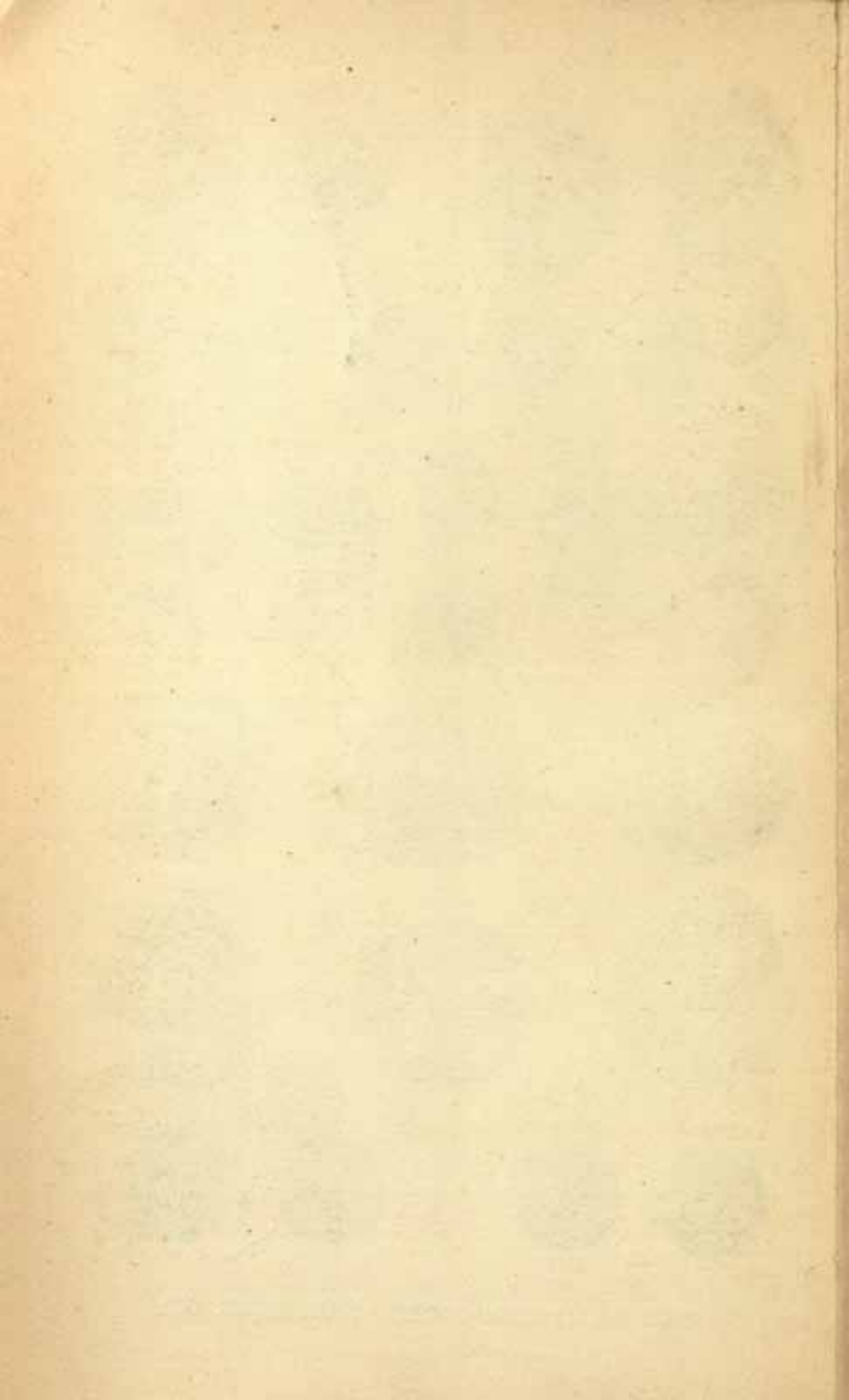


23



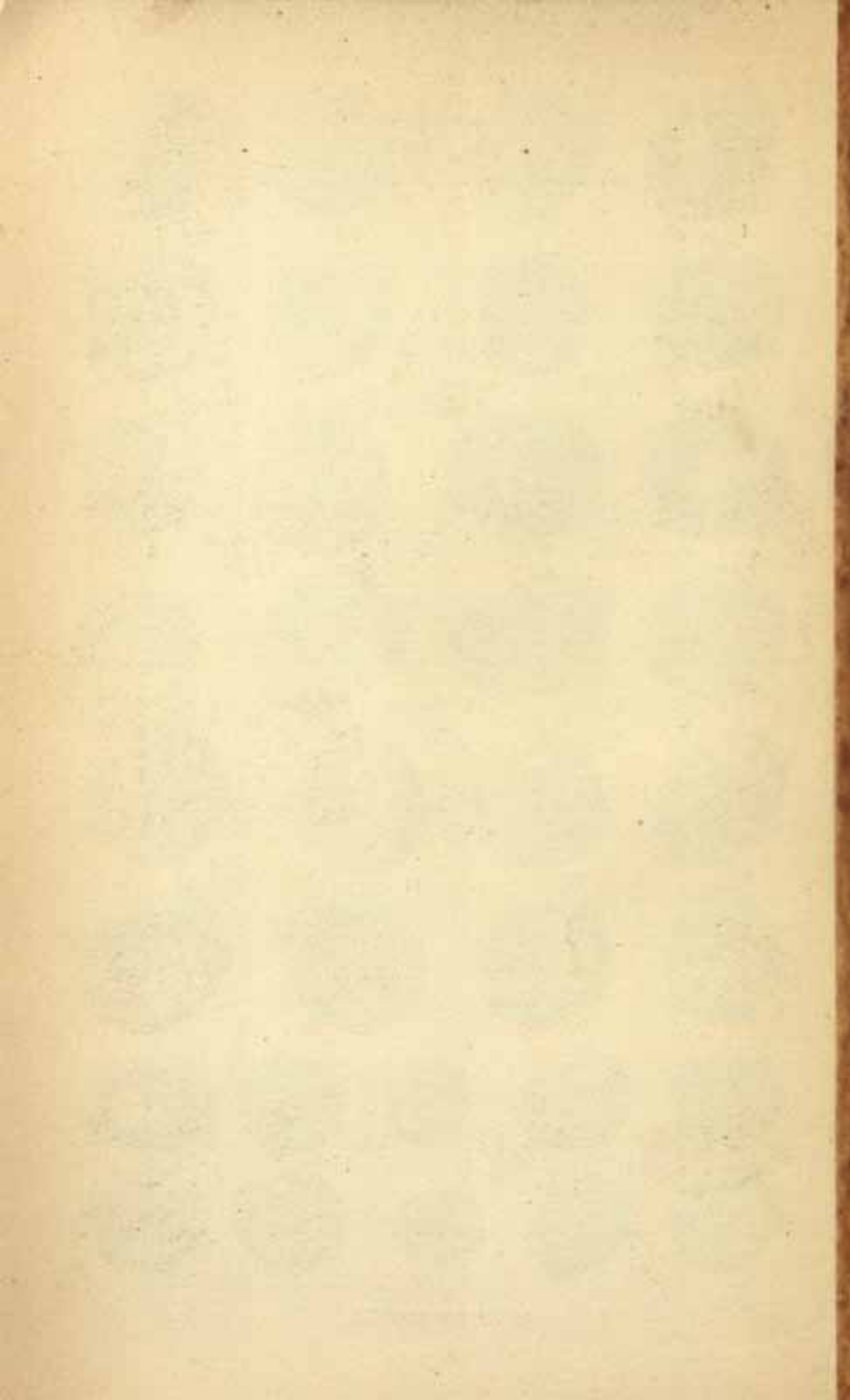
24







AEGEAN MINTS.





1



2



3



4



5



6



7



8



9



10



11



12



13



14



15



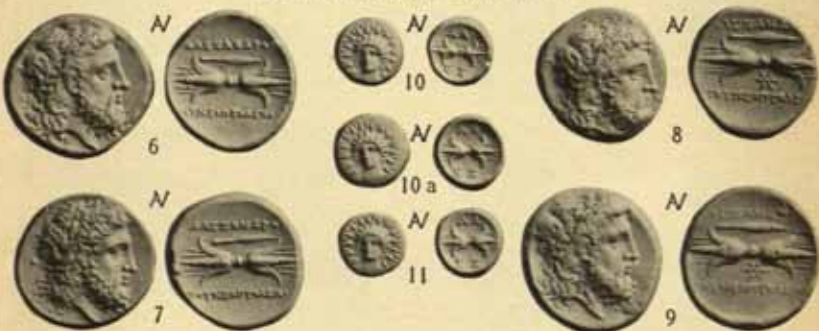
AEGEAN MINTS.



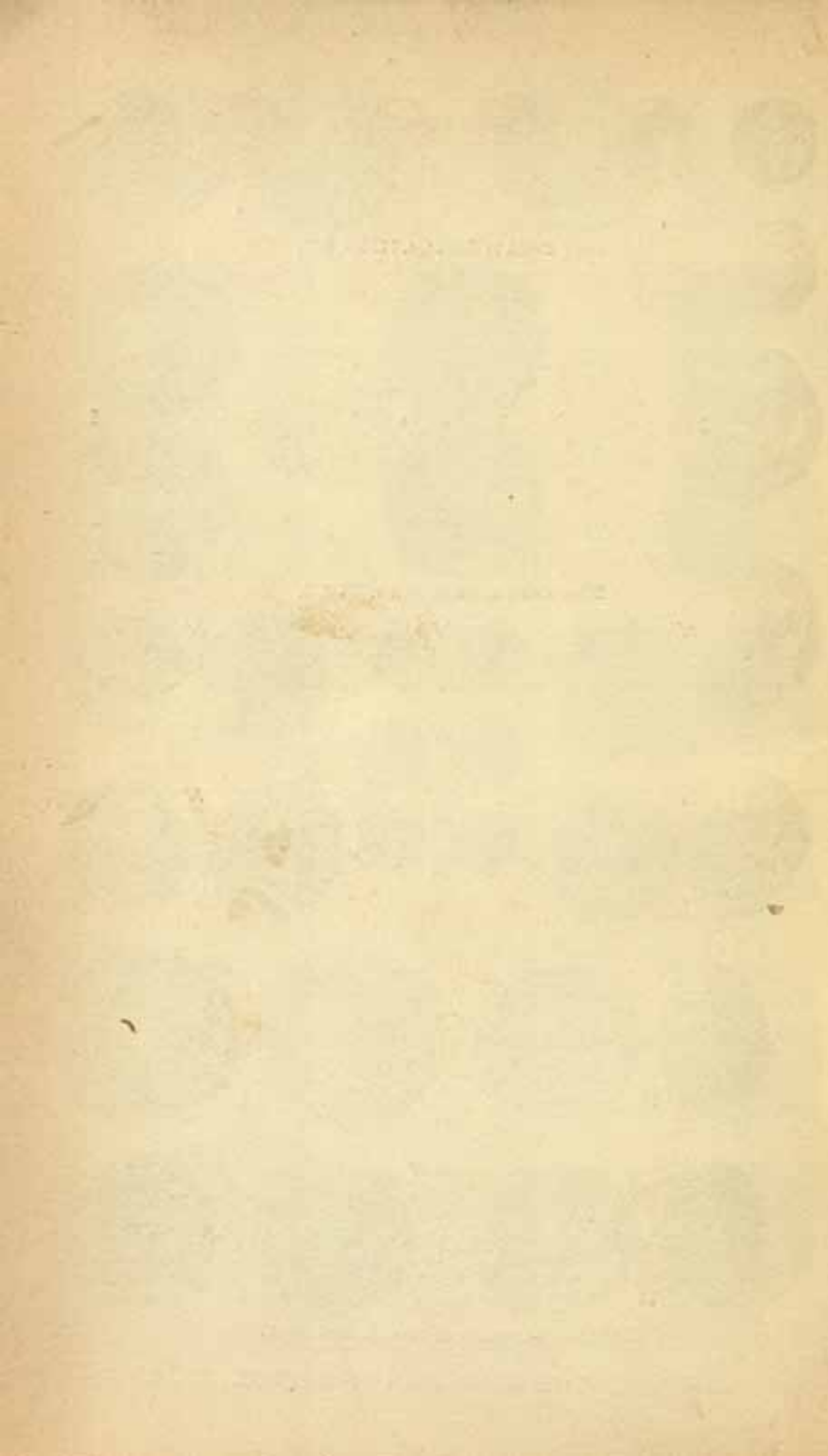
Silver struck in Epirus, c. 342-334 B.C.



Silver struck at Taras, after c. 334 B.C.



Gold and silver struck at Taras, c. 334-332 B.C.





Silver struck at Taras, c. 334-332 B.C.



Uncertain mint, c. 334-332 B.C.



Silver probably struck at Metapontion, c. 332-330 B.C.



Silver probably struck in Epirus, c. 332-330 B.C.



Bronze of Alexander probably struck in Epirus (1-8) and at Taras (9), c. 342-330 B.C



Gold and silver of Taras, signed KAA, ΞΕ, ΦΙ, &c.





1



2



3



4



5



6



7



8



9



10



11



12



13



14

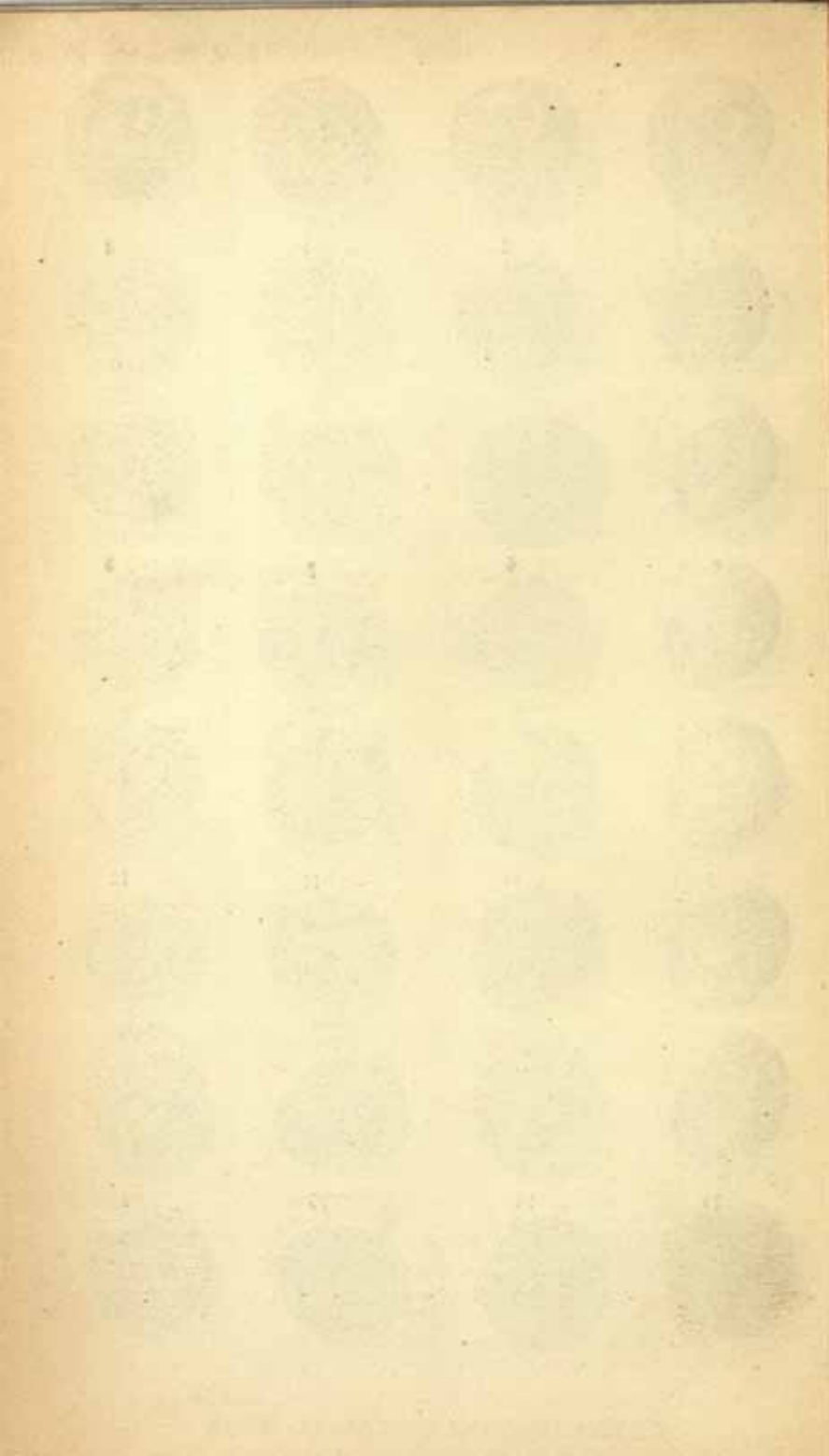


15



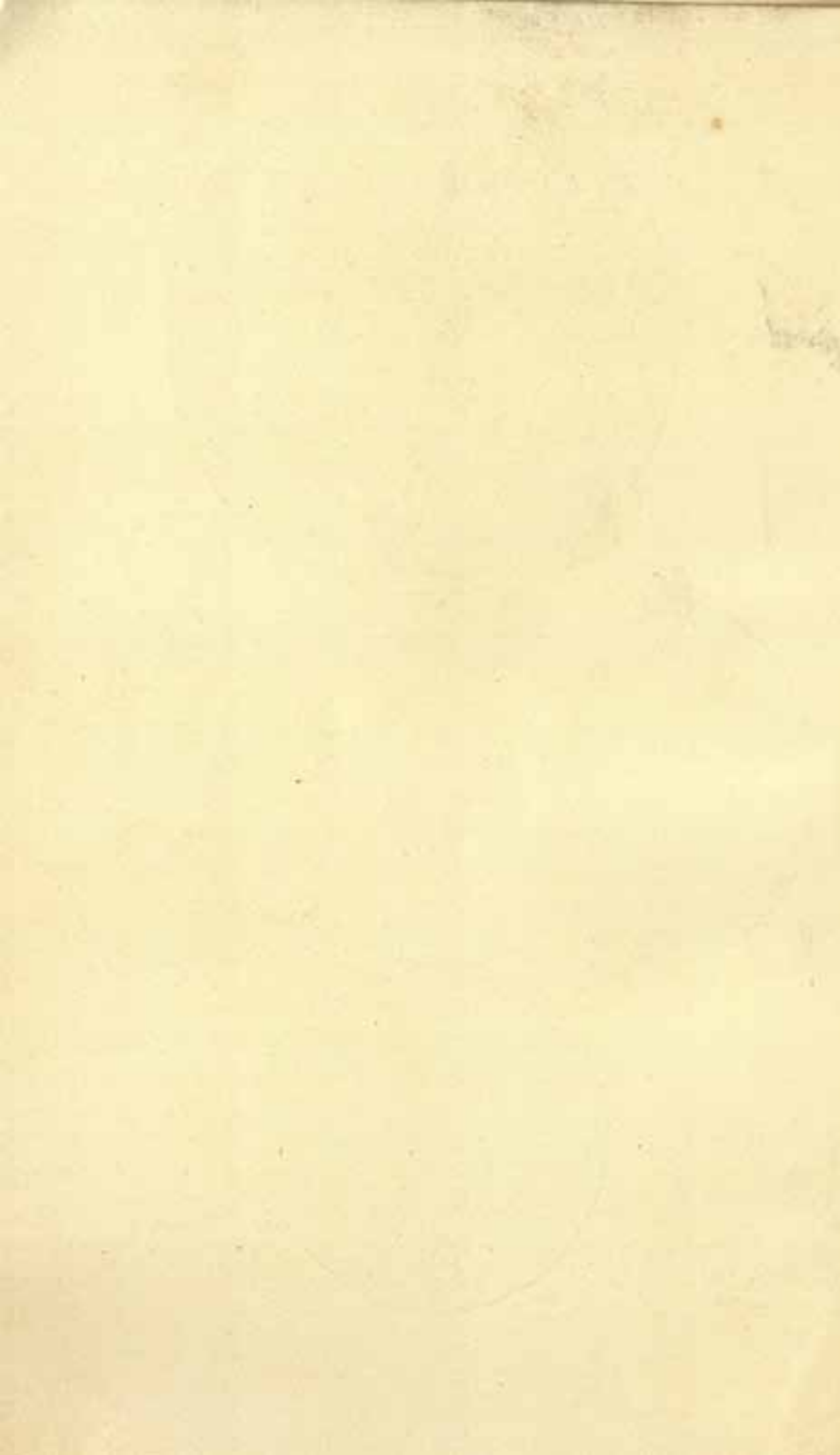
16







RESTORED COINS OF TRAJAN. PL. II.





1



2

3

2



4

5



6

7

8



10

9

10



11



12



11



13



13



14



14



16



15



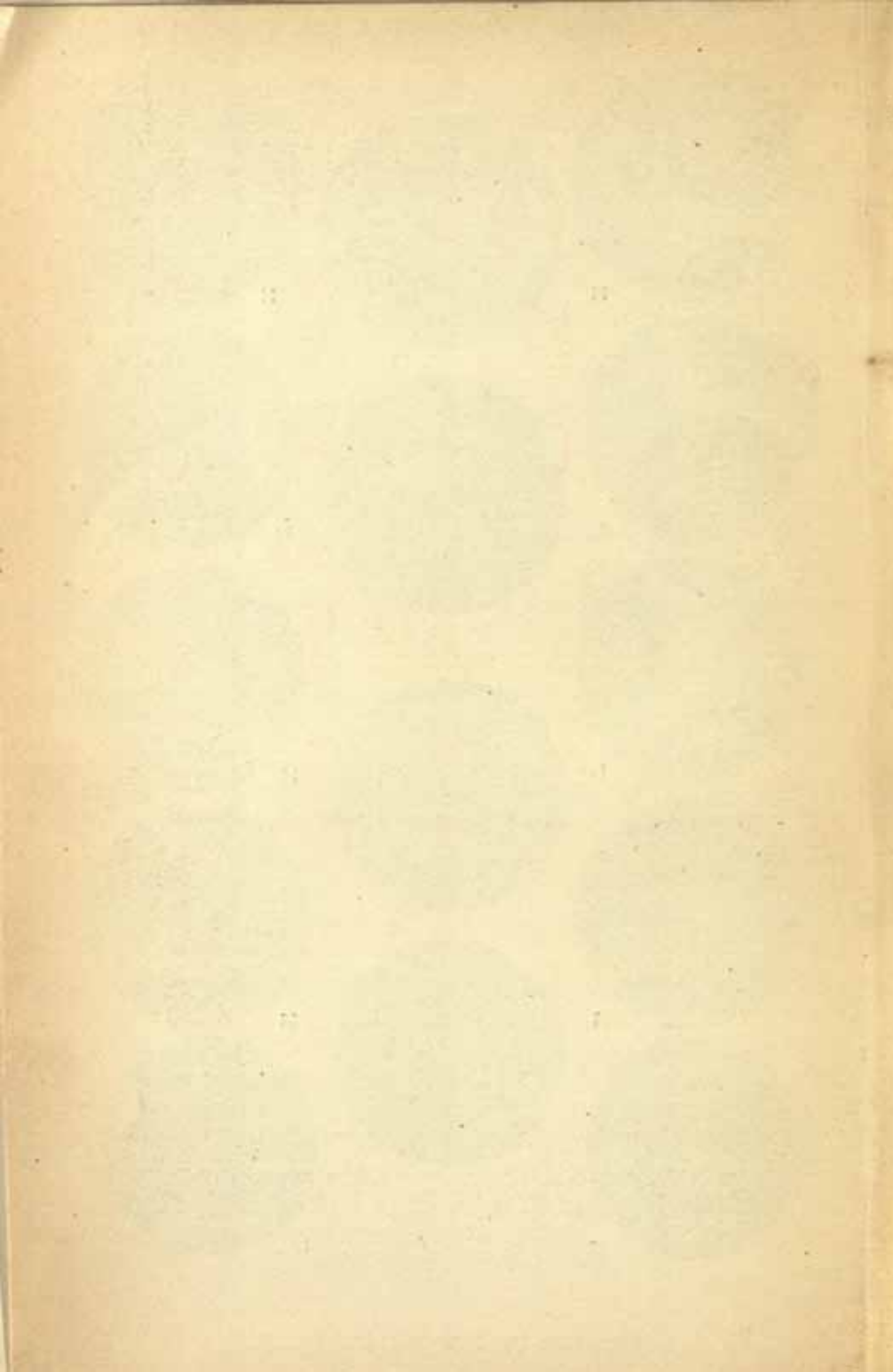
16

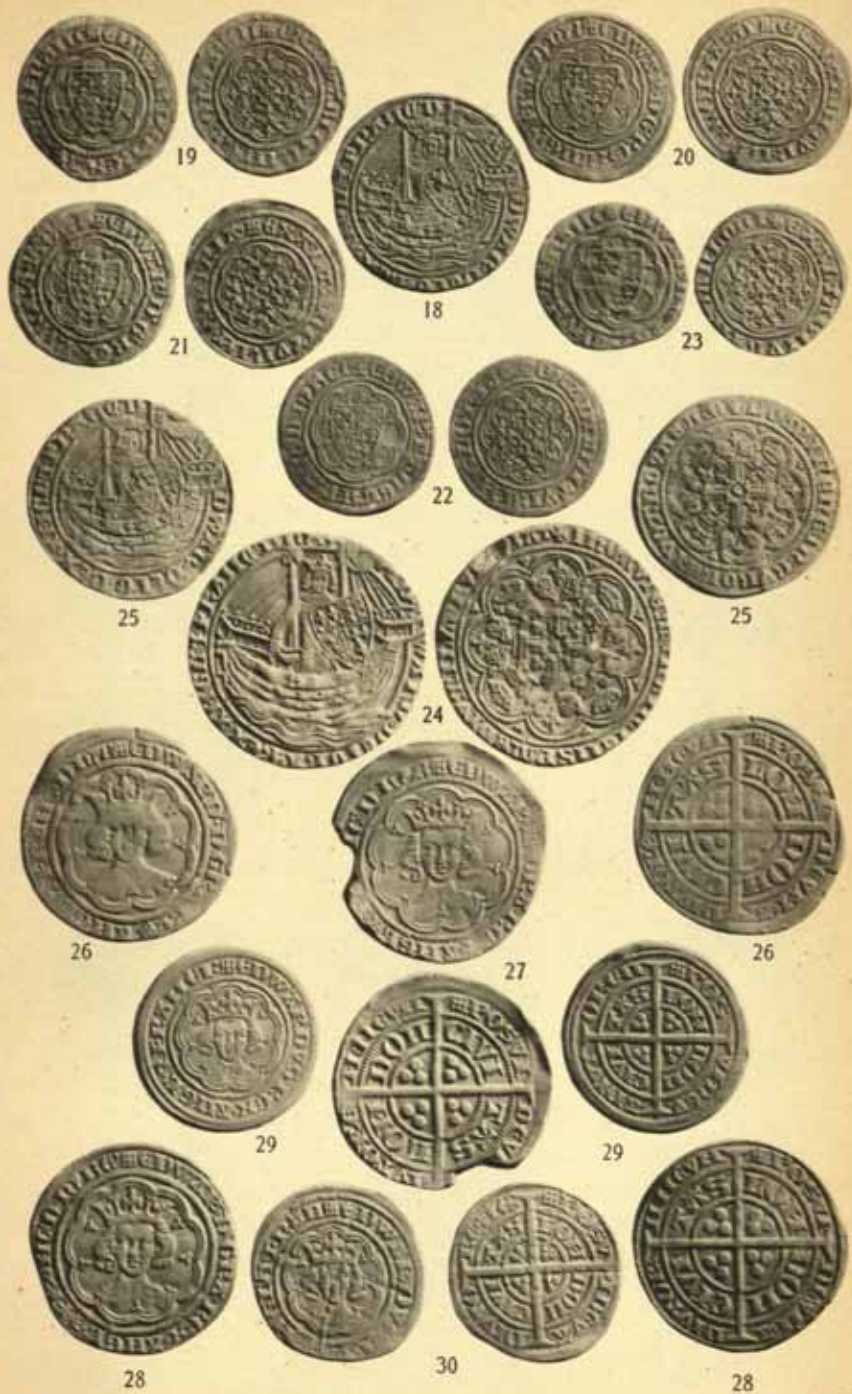


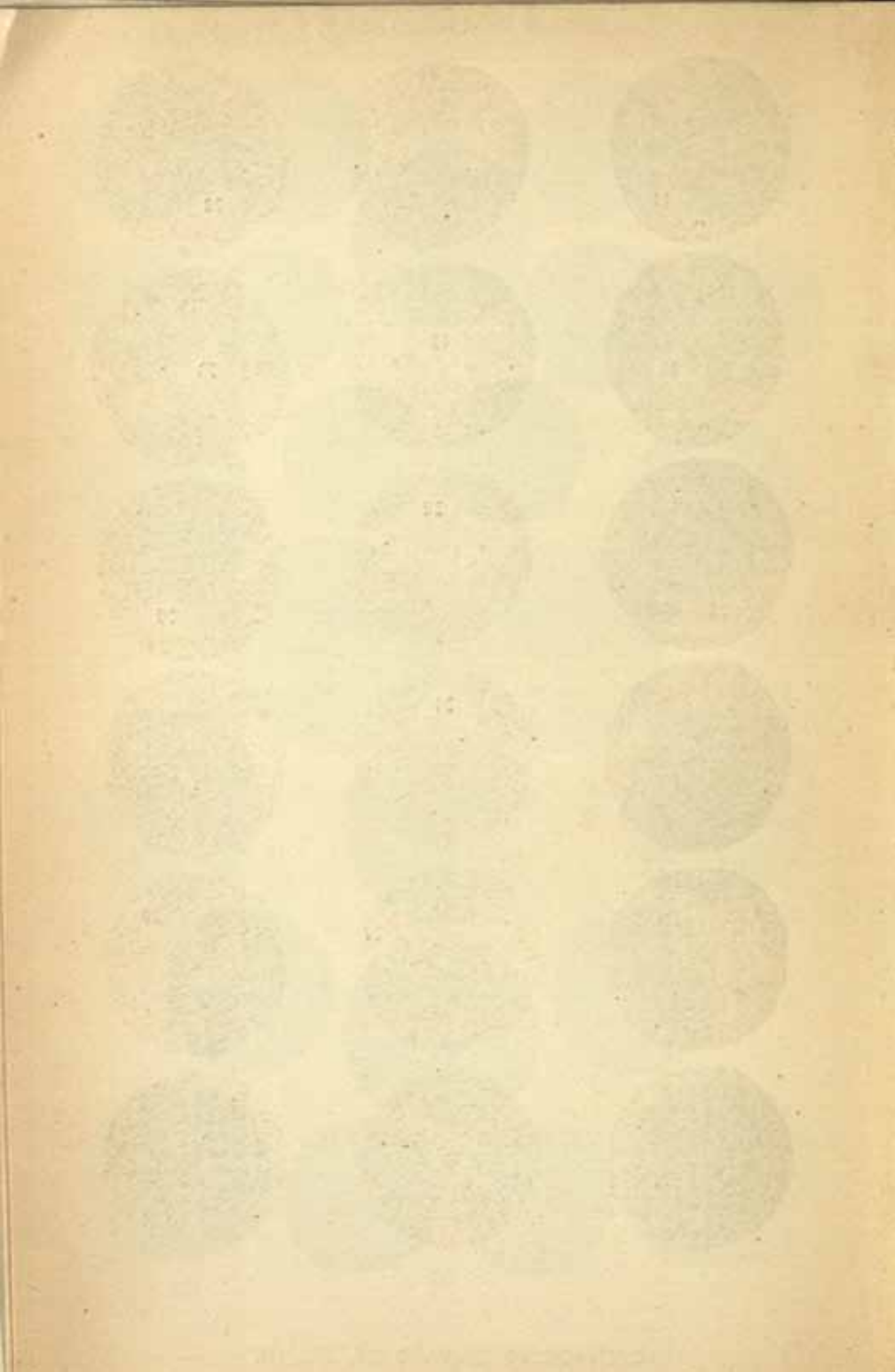
17



17









31



32



33



34



35



36



37

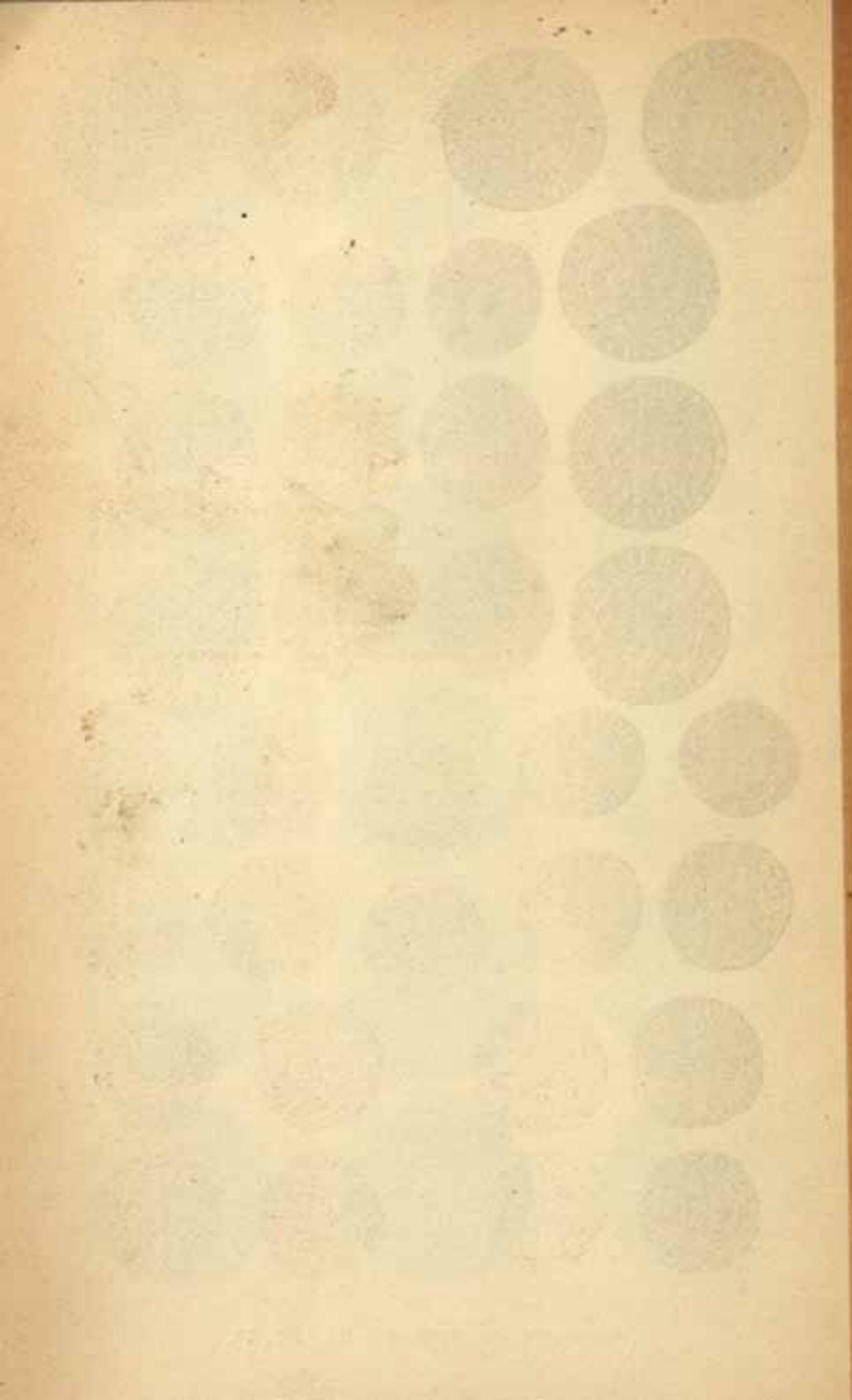


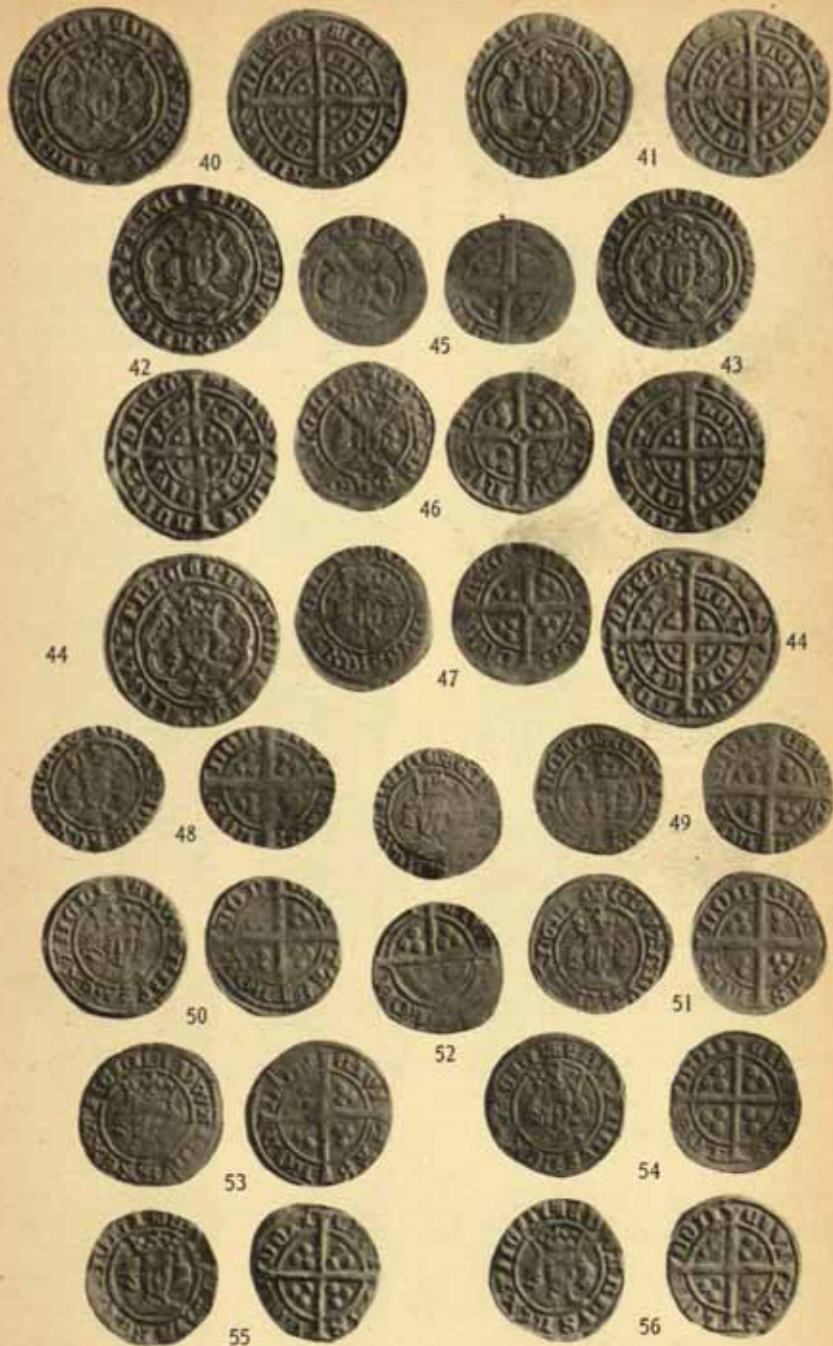
38



39









1



2



3



4



5



6



7



8



9



10



11



12



13

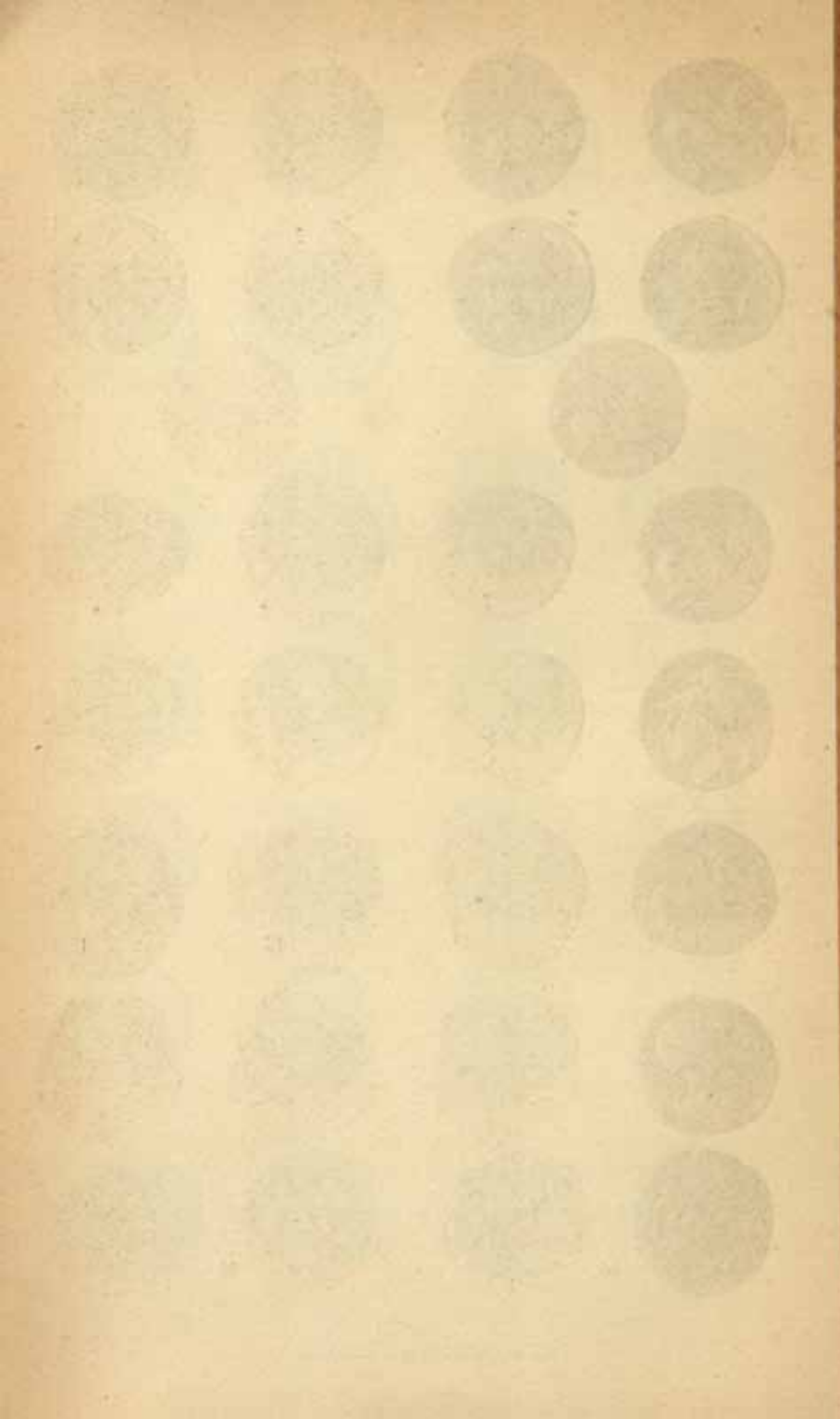


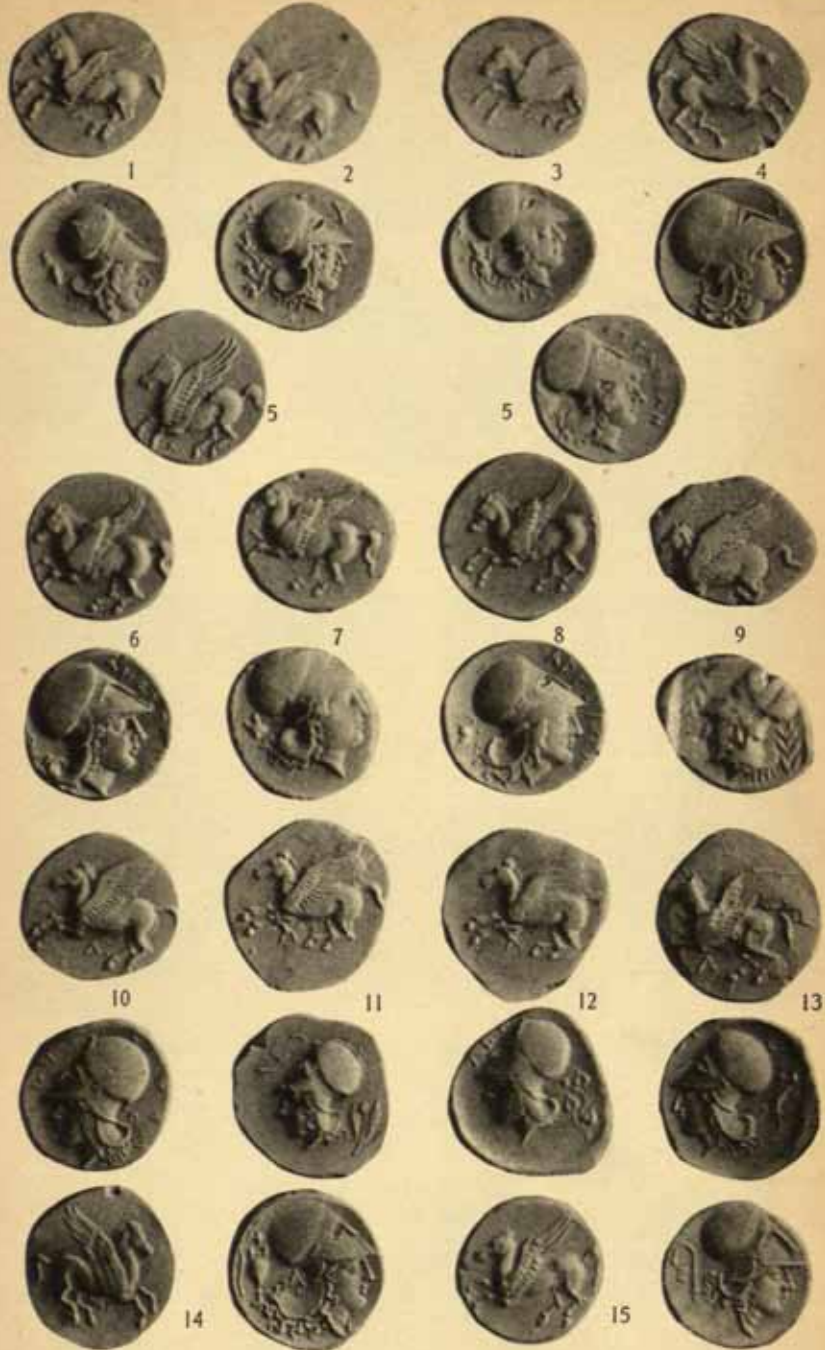
14



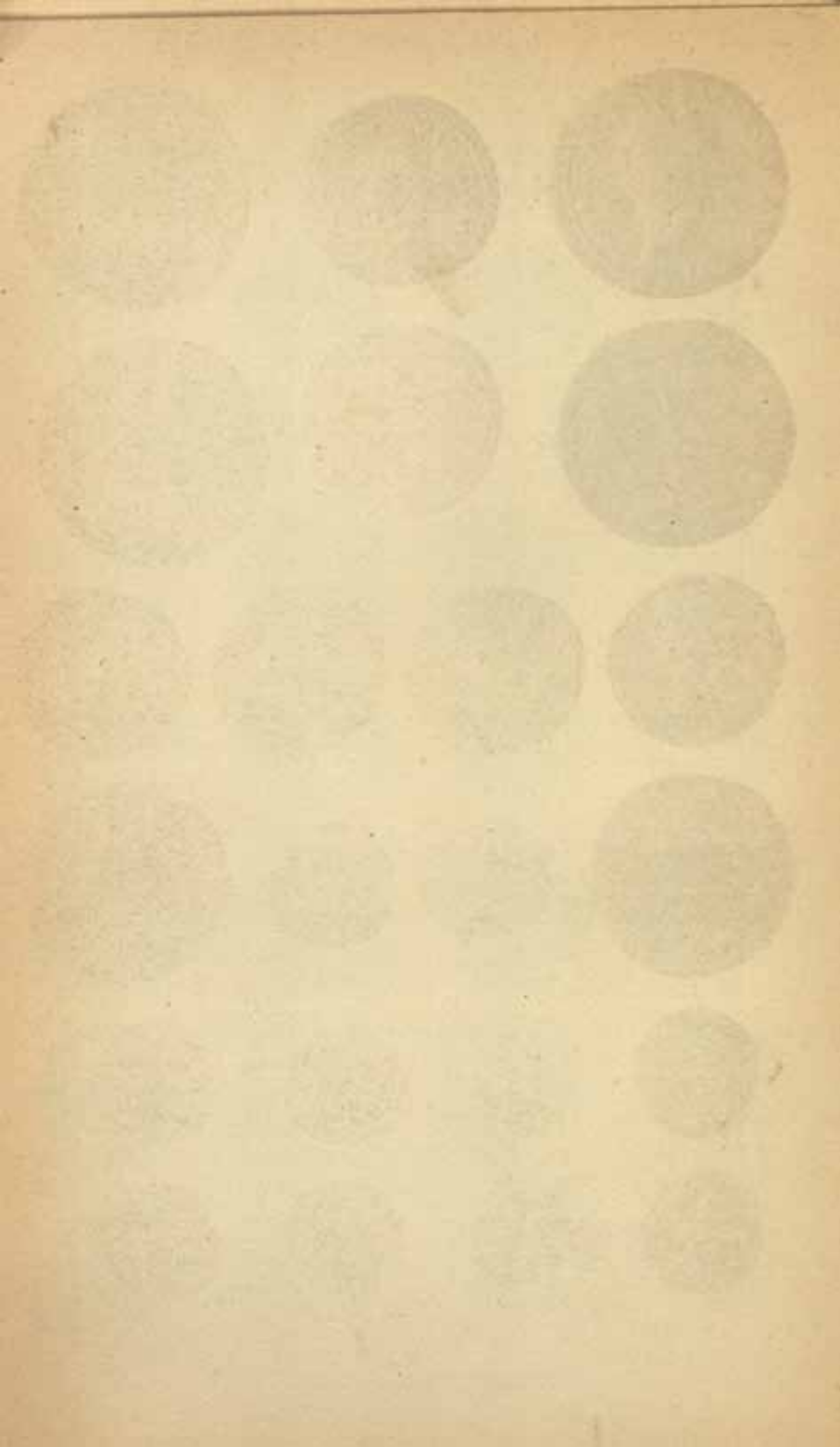
15







CORINTHIAN PEGASI.





1



2



3



4



5



6



7



6



8



9



10



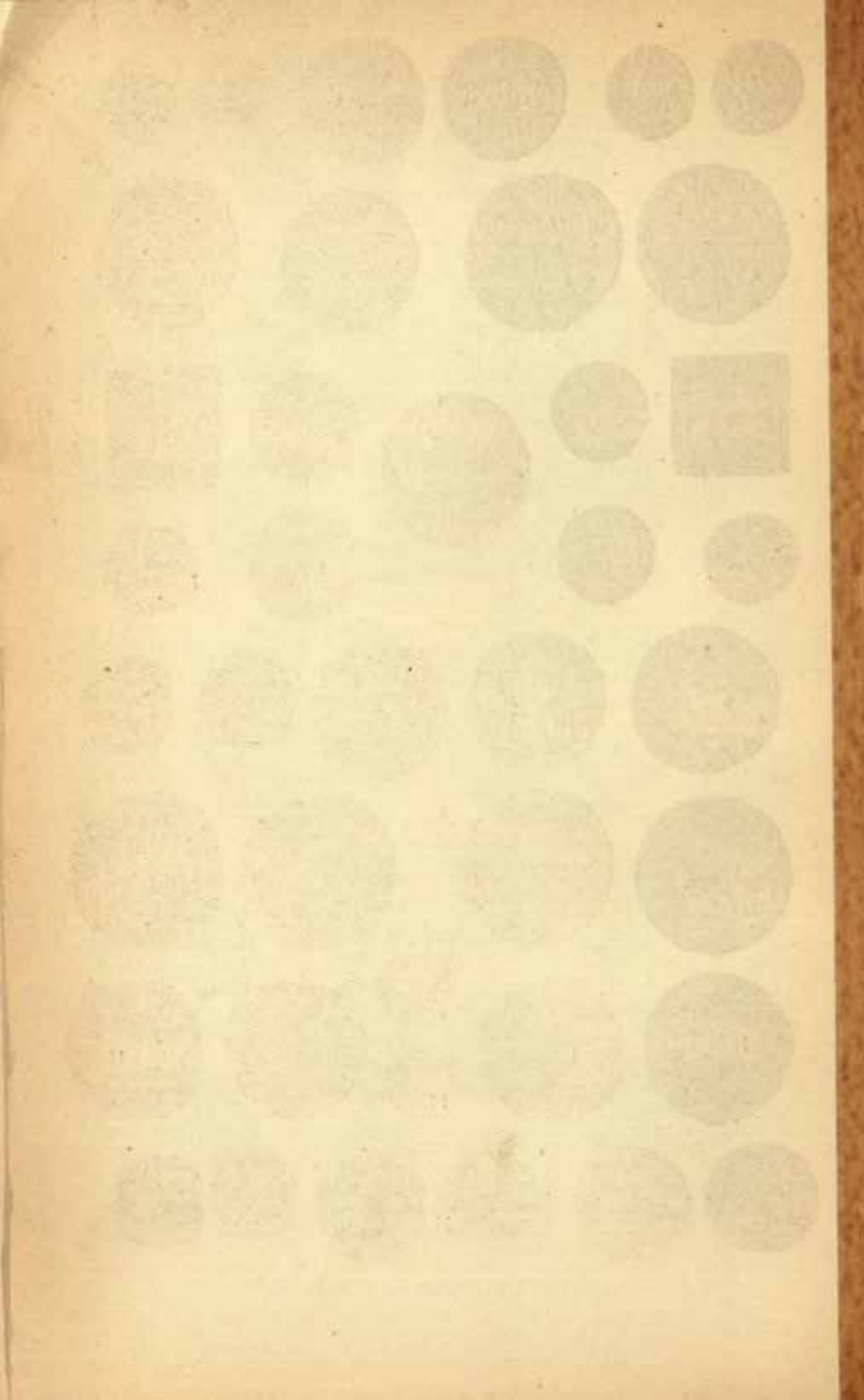
11

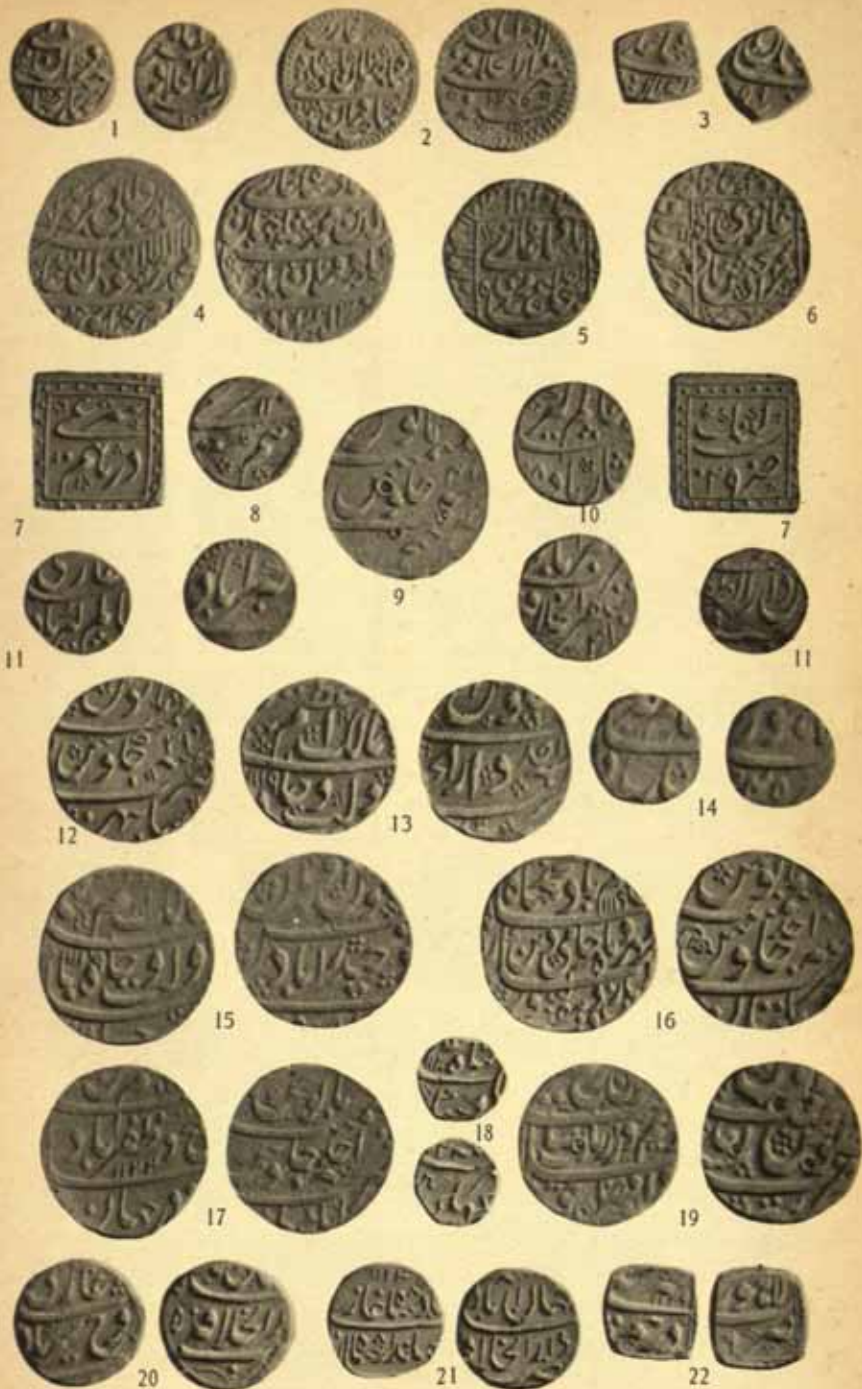


ROMAN AND BYZANTINE COINS.

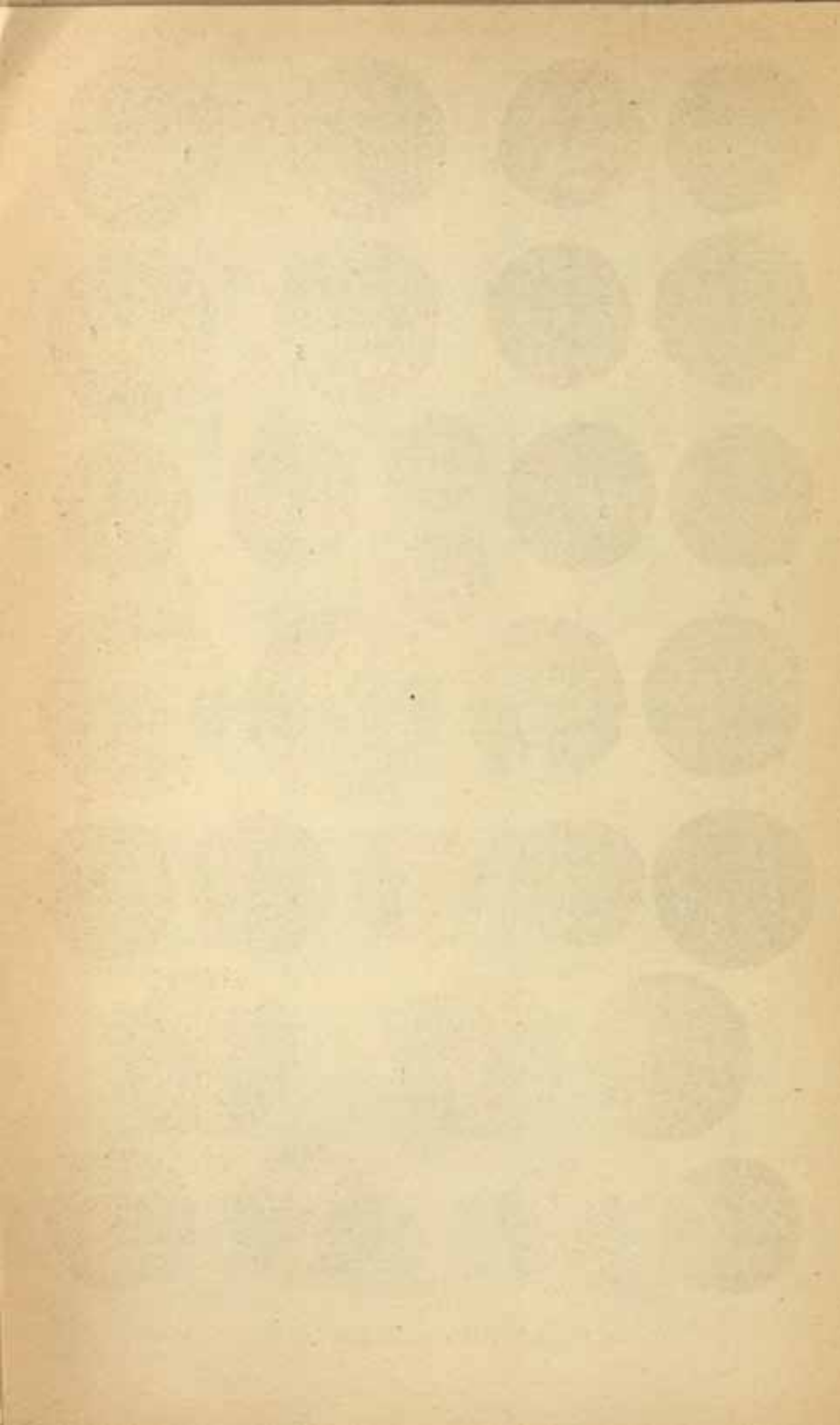


NOTABLE MUGHAL COINS IV.





NOTABLE MUGHAL COINS V.





NOTABLE MUGHAL COINS VI.

LIST OF FELLOWS
OF THE
ROYAL
NUMISMATIC SOCIETY
1926

PRINTED IN ENGLAND AT THE
UNIVERSITY PRESS, OXFORD
BY JOHN JOHNSON
PRINTER TO THE UNIVERSITY

PATRON
HIS MAJESTY THE KING

LIST OF FELLOWS
OF THE
ROYAL
NUMISMATIC SOCIETY
1926

*The sign * indicates that the Fellow has compounded for his annual contribution : † that the Fellow has died during the year.*

ELECTED

- 1920 ABBOTT, GEORGE HENRY, Esq., B.A., M.B., C.M., 185 Macquarie Street, Sydney, N.S.W.
- 1907 ALLAN, JOHN, Esq., M.A., M.R.A.S., *Deputy-Keeper of Coins, British Museum, W.C. 1, Hon. Secretary.*
- 1907 ALLATINI, ROBERT, Esq., 18 Holland Park, W. 11.
- 1884 ANDREWS, R. THORNTON, Esq., 25 Castle Street, Hertford.
- 1917 ATKINSON, DONALD, Esq., B.A., The University, Manchester.
- 1907 BAIRD, REV. ANDREW B., D.D., The Library, Manitoba College, Winnipeg, Canada.
- 1902 BALDWIN, A. H., Esq., 40 Craven Street, Charing Cross, W.C. 2.
- 1923 BALDWIN, A. H. F., Esq., 40 Craven Street, W.C. 2.
- 1905 BALDWIN, PERCY J. D., Esq., 4A Duncannon Street, Charing Cross, W.C. 2.
- 1909 BALDWIN BRETT, MRS. A., 131 Maple Avenue, Flushing, New York, U.S.A.
- 1917 BARKER, A. LEIGH, Esq., M.A., Spreacombe Manor, Branton, North Devon.
- 1917 BARNARD, F. PIERREPONT, Esq., M.A., D.Litt., F.S.A., Bilby Hall, Alford, Linca.
- 1906 BEATTY, W. GEDNEY, Esq., 247 Central Park West, New York, U.S.A.
- 1919 BEAZLEY, Professor J. D., M.A., Ashmolean Museum, Oxford.
- 1910 BENNET-POË, J. T., Esq., M.A., 29 Ashley Place, S.W. 1.
- 1920 BERNAYS, M. EDOUARD, 33 Avenue Van Eyck, Antwerp.

ELECTED

- 1916 BERRY, S. R., Esq., P.W.D., 3 Distillery Road, Hyderabad, Deccan, India.
- 1879 *BLUNDELL, J. H., Esq., Herne, Toddington, nr. Dunstable.
- 1923 BLUNT, C. E., Esq., 4 Cambridge Square, W. 2.
- 1917 BORDONARO, BARON G. CHIARAMONTE, Palazzo Bordonaro, Piazza Municipio, Palermo, Sicily.
- 1919 BOULTON, LT.-COL. OSCAR F. (address not known).
- 1895 BRIGHTON PUBLIC LIBRARY, The Curator, Brighton.
- 1906 BRISTOL CENTRAL LIBRARY, The Librarian, Bristol.
- 1910 BRITTAN, FREDERICK J., Esq., 63 Bingham Road, Addiscombe, Croydon.
- 1908 BROOKE, GEORGE CYRIL, Esq., M.A., British Museum, W.C. 1, *Foreign Secretary*.
- 1905 BROOKE, JOSHUA WATTS, Esq., 23 Salisbury Road, Marlborough, Wilts.
- 1924 BUNN, C. J., Esq., 125 Grove Lane, S.E. 5.
- 1897 BURN, SIR RICHARD, C.S.I., I.C.S., M.R.A.S., c/o Messrs. Grindlay & Co., Bombay.
- 1911 BURTON, FRANK E., Esq., J.P., Orston Hall, Notts.
- 1920 BUTCHER, W., Esq., Brookend, Ross, Herefordshire.
- 1904 CAHN, DR. JULIUS, Niedenau, 55, Frankfurt-am-Main, Germany.
- 1886 CALDECOTT, J. B., Esq., 38 Roland Gardens, S.W. 7.
- 1908 CALLEJA SCHEMBRI, RIGHT REV. MONSIGNOR H., D.D., K.H.S., 66 Windsor Terrace, Valletta, Malta.
- 1914 CAMERON, LT.-COL. J. S., D.S.O., Low Wood, Bethersden, Ashford, Kent.
- 1925 CARDIFF, Central Library, The Librarian.
- 1894 CARLYON-BRITTON, MAJOR P. W. P., D.L., J.P., F.S.A., Eversfield, Fishbourne, Chichester.
- 1923 CARLYON-BRITTON, RAYMOND, Esq., Eversfield, Fishbourne, Chichester.
- 1923 CARTWRIGHT, RICHARD, Esq., Aynho Park, Banbury.
- 1925 CHAMBERLAIN, JOHN A., Esq., 44 Barrington Road, S.W. 9.
- 1922 CHARLIER, M. PIERRE, 213 Grand Rue, Montignie-sur-Sambre, Belgium.
- 1914 CICCIO, MONSIGNOR CAVALIERE UFF. GIUSEPPE DE, 44 Parco Margherita, Naples.
- 1891 *CLAUSON, ALBERT CHARLES, Esq., Hawkshead House, Hatfield, Herts.
- 1911 *COATES, R. ASSHETON, Esq., Cawder, King's Road, Berkhamstead, Herts.

ELECTED

- 1913 *CODRINGTON, HUMPHREY W., Esq., C.C.S., B.A., M.R.A.S.,
c/o The Secretariat, Colombo, Ceylon.
- 1919 COLEGATE, ARTHUR, Esq., The Pole, Northwich, Cheshire.
- 1918 COLES, COLONEL A. H., C.M.G., D.S.O., 18 Walpole Street,
Chelsea, S.W. 3.
- 1925 CÔTE, M. CLAUDIUS, 33 Rue du Plat, Lyons, France.
- 1902 COVERNTON, J. G., Esq., M.A., C.I.E., Parsonage House,
Finchingfield, Braintree, Essex.
- 1919 *CRASTER, H. H. E., Esq., M.A., D.Litt., F.S.A., All Souls
College, Oxford.
- 1922 CRIPPS, MRS. HELEN AUGUSTA, Cripps Mead, Cirencester.
- 1886 *CROMPTON-ROBERTS, CHAS. M., Esq., 52 Mount Street, W. 1.
- 1920 CROSS, A. PEARL, Esq., F.R.G.S., 1 Madrid Road, S.W. 13.
- 1914 CROWTHER-BEYNON, V. B., Esq., M.A., F.S.A., M.B.E.,
Westfield, Beckenham, Kent.
- 1924 CUNINGHAM, ROBERT M., Esq., c/o Westminster Bank,
34 Sloane Square, S.W. 1.
- 1902 DAVEY, EDWARD CHARLES, Esq. (address not known).
- 1926 DEACON, JAMES HUNT, Wotton-under-Edge, Bull's Creek
Road, Torrens Park, Adelaide, South Australia.
- 1922 DEE, JOSEPH P., Esq., M.D., Barnard Lea, Walton-on-the-Naze,
Essex.
- 1922 DICKSON, REV. W. H. FANE, Gorsley Vicarage, Gloucester.
- 1919 DRABBLE, G. C., Esq., Los Altos, Sandown, Isle of Wight.
- 1911 DRUCE, HUBERT A., Esq., Sandesfoot House, Wyke Regis,
Weymouth.
- 1920 EDWARDS, CARL, Esq., Woodlesford, Leeds.
- 1905 EGGER, HERR ARMIN, 7 Opernring, Vienna.
- 1918 EIDLITZ, ROBERT JAMES, Esq., 775 Park Avenue, New
York, U.S.A.
- 1907 ELDER, THOMAS L., Esq., 9 East Thirty-fifth Street, New
York, U.S.A.
- 1893 ELLIOTT, E.A., Esq., 41 Chapel Park Road, St. Leonards-on-Sea.
- 1920 EMPEDOCLES, G., Esq., 34 Academy Street, Athens, Greece.
- 1872 *EVANS, SIR ARTHUR J., M.A., D.Litt., LL.D., Ph.D.,
F.R.S., F.S.A., F.B.A., Corr. de l'Inst., Youlbury, near
Oxford, *Vice-President*.
- 1892 *EVANS, LADY, M.A. (Oxon.), 9 Kensington Park Gardens,
W. 11.
- 1905 FAIRBAIRN, SIDNEY H., Esq., M.D., 11 Bolton Gardens,
S.W. 10.

ELECTED

- 1904 *FARQUHAR, MISS HELEN, 11 Belgrave Square, S.W. 1.
 1921 FAULKNER, W. J., Esq., Sutton House, Endon, Stoke-on-Trent.
 1902 FENTIMAN, HARRY, Esq., Murray House, Murray Road, Ealing Park, W. 5.
 1910 FISHER LIBRARY, THE, University, Sydney, N.S.W.
 1908 FITZWILLIAM MUSEUM, The Curator, Cambridge.
 1901 FLETCHER, LIONEL LAWFORD, Esq., Norwood Lodge, Tupwood, Caterham.
 1915 FLORENCE, R. Museo Archeologico of, Italy.
 1898 FORRER, L., Esq., Helvetia, 14 Homefield Road, Bromley, Kent.
 1894 *FOSTER, JOHN ARMSTRONG, Esq., F.Z.S., Chestwood, near Barnstaple.
 1896 *FRY, CLAUDE BASIL, Esq., Hannington Hall, Highworth, Wilts.
- 1897 *GANS, LEOPOLD, Esq., 207 Maddison Street, Chicago, U.S.A.
 1912 GANTZ, REV. W. L., M.A., C.F., South Place, Letchworth.
 1871 GARDNER, PROF. PERCY, M.A., D.Litt., Litt.D., LL.D., F.S.A., F.B.A., 12 Canterbury Road, Oxford.
 1907 GARDNER, WILLOUGHBY, Esq., F.S.A., F.R.G.S., F.L.S., Y Berfa, Deganwy, North Wales.
 1889 GARSIDE, HENRY, Esq., 46 Queen's Road, Teddington, Middlesex.
 1920 GIFFORD, C. S., Esq., 36 Temple Place, Boston, U.S.A.
 1913 GILBERT, WILLIAM, Esq., M.S.A., 74 Broad Street Avenue, E.C. 2.
 1916 GILLIES, WILLIAM, Esq., 204 West George Street, Glasgow.
 1922 GILLINGHAM, HARROLD E., Esq., 432 West Price St., Philadelphia, U.S.A.
 1920 GINORI, MARCHESE ROBERTO VENTURI, 75 Via della Scala, Florence, Italy.
 1906 GLOUCESTER, THE RIGHT REV. THE LORD BISHOP OF, The Palace, Gloucester.
 1894 GOODACRE, HUGH, Esq., Ullesthorpe Court, Lutterworth, Leicestershire.
 1904 GRAHAM, T. HENRY BOILEAU, Esq., F.S.A., Oxford and Cambridge Club, Pall Mall, S.W. 1.
 1891 *GRANTLEY, LORD, D.L., J.P., F.S.A., Weekes Manor, Winchester, Hants.
 1914 GROSE, S. W., Esq., M.A., 18 Hobson Street, Cambridge.

ELECTED

- 1871 GRUEBER, HERBERT A., Esq., F.S.A., Bembridge, Isle of Wight.
- 1910 GUNN, WILLIAM, Esq., 19 Swan Road, Harrogate.
- 1920 GUNTHER, CHARLES GODFREY, Esq., Nicosia, Cyprus.
- 1916 HAINES, G. C., Esq., 14 Gwendwr Road, W. 14.
- 1899 HALL, HENRY PLATT, Esq., Pentreheylin Hall, Llanymynech, Montgomeryshire.
- 1912 † HAMILTON-SMITH, G., Esq., Northside, Leigh Woods, Bristol.
- 1898 HANDS, REV. ALFRED W., 8 Grove Road, Wanstead, E. 11.
- 1924 HARCUM, MISS CORNELIA E., Ph.D., *Keeper of Classical Antiquities*, Royal Ontario Museum, Toronto, Canada.
- 1912 HARDING, NEWTON H., Esq., 110 Pine Avenue, Chicago, U.S.A.
- 1917 HARRIS, B. WILFRED, Esq., Lyewood, Boldmere, Erdington, Birmingham.
- 1904 HARRIS, EDWARD BOSWORTH, Esq., 5 Sussex Place, N.W. 1.
- 1904 HARRISON, FREDERICK A., Esq., F.Z.S., Sunnyside, Fourth Avenue, Frinton-on-Sea.
- 1916 *HART, R. EDWARD, Esq., M.A., Brooklands, Blackburn.
- 1914 HAYES, HERBERT E. E., Esq., C.M.S. House, Menouf, Egypt.
- 1886 *HENDERSON, JAMES STEWART, Esq., F.R.G.S., M.R.S.L., M.C.P., 1 Pond Street, Hampstead, N.W. 3.
- 1900 HEWLETT, LIONEL M., Esq., Greenbank, Harrow-on-the-Hill, Middlesex.
- 1903 HIGGINS, FRANK C., Esq., 579 East 17th Street, Flatbush, Brooklyn, N.Y.
- 1898 HILL, CHARLES WILSON, Esq. (address not known).
- 1893 HILL, GEORGE FRANCIS, Esq., M.A., LL.D., Litt.D., F.S.A., F.B.A., *Keeper of Coins*, British Museum, W.C. 1, *Vice-President*.
- 1895 HODGE, THOMAS, Esq., Fyning House, Rogate, Petersfield, Hants.
- 1920 *HOLROYD, MICHAEL, Esq., M.A., Brasenose College, Oxford.
- 1921 HUBBARD, WING-COMMANDER T. O'BRIEN, M.C., Royal Aero Club, 3 Clifford Street, W. 1.
- 1908 *HUNTINGTON, ARCHER M., Esq., Governor of the American Numismatic Society, Audubon Park, 156th Street, West of Broadway, New York, U.S.A.

ELECTED

- 1922 IYENGAR, M. H. KRISHNA, Esq., M.A., M.R.A.S., Government Museum, Bangalore, India.
- 1922 JAMESON, M. R., 8 Avenue Velasquez, Paris.
- 1922 JOHNSON, LIEUT.-COL. ROBERT A., C.B.E., Deputy-Master, The Royal Mint, E. I.
- 1911 JOHNSTON, LEONARD P., Esq., The Cottage, Warningcamp, Arundel, Sussex.
- 1911 JONES, FREDERICK WILLIAM, Esq., 22 Ramshill Road, Scarborough.
- 1926 KENT NUMISMATIC SOCIETY, THE, Brewer Street, Maidstone.
- 1874 *KENYON, R. LLOYD, Esq., M.A., J.P., D.L., Pradoc, West Felton, Salop.
- 1914 *KERR, ROBERT, Esq., M.A., Royal Scottish Museum, Edinburgh.
- 1920 KING, COLONEL E. J., C.M.G., The Old House, East End Road, N. 2.
- 1901 KOZMINSKY, DR. ISIDORE, 20 Queen Street, Kew, near Melbourne, Victoria.
- 1917 LAMB, MISS WINIFRED, Holly Lodge, Campden Hill, W. 8.
- 1920 LAST, H. M., Esq., M.A., St. John's College, Oxford.
- 1910 LAUGHLIN, DR. W. A., M.A. (address not known).
- 1877 LAWRENCE, F. G., Esq., Birchfield, Mulgrave Road, Sutton, Surrey.
- 1885 *LAWRENCE, L. A., Esq., F.S.A., 44 Belsize Square, N.W. 3., *Librarian*.
- 1883 *LAWRENCE, RICHARD HOE, Esq., Fifth Avenue Bank, New York, U.S.A.
- 1920 LEWIS, JOHN CAMPBELL, Esq., Bridge House, Troedyrhiw, Merthyr Tydfil.
- 1900 LINCOLN, FREDERICK W., Esq., 69 New Oxford Street, W.C. 1.
- 1922 LLOYD, ALBERT H., Esq., St. John's House, 73 Grange Road, Cambridge.
- 1922 *LLOYD, MISS MURIEL ELEANOR HAYDON, St. John's House, 73 Grange Road, Cambridge.
- 1907 LOCKETT, RICHARD CYRIL, Esq., F.S.A., J.P., 58 Cadogan Place, S.W. 1.
- 1911 LONGMAN, W., Esq., 27 Norfolk Square, W. 2.
- 1924 DE LOREY, M. EUSTACHE, Institut Français, Damascus, Syria.

ELECTED

- 1921 LUCKNOW MUSEUM, The Curator of the, Lucknow, India.
- 1893 LUND, H. M., Esq., Waitara, Taranaki, New Zealand.
- 1903 LYDDON, FREDERICK STICKLAND, Esq., 5 Beaufort Road, Clifton, Bristol.
- 1885 *LYELL, ARTHUR HENRY, Esq., F.S.A., 9 Cranley Gardens, S.W. 7.
- 1895 MACDONALD, SIR GEORGE, K.C.B., M.A., LL.D., D.Litt., F.B.A., 17 Learmonth Gardens, Edinburgh.
- 1901 MACFADYEN, FRANK E., Esq., 135 Osborne Road, Newcastle-on-Tyne.
- 1923 MALLINSON, REV. ARNOLD, 2 Severn Road, South Shore, Blackpool.
- 1912 MATTINGLY, HAROLD, Esq., M.A., British Museum, W.C. 1.
- 1905 MAVROGORDATO, J., Esq., Gilridge, Cowden Pound, Edenbridge, Kent.
- 1921 MAVROJANI, CAPTAIN S., M.A., B.C.L., Clyro Court, Clyro, Hereford.
- 1901 McDOWALL, REV. STEWART A., 5 Kingsgate Street, Winchester.
- 1905 McEWEN, HUGH DRUMMOND, Esq., 13 Lovelace Road, West Dulwich, S.E. 21.
- 1916 MEIGH, ALFRED, Esq., Dole Spring House, Forsbrook, Stoke-on-Trent.
- 1924 *MERRITT, FERRIS P., Esq., 25 West 43rd Street, New York, U.S.A.
- 1905 MESSENGER, LEOPOLD G. P., Esq., 151 Brecknock Road, Tufnell Park, N. 19.
- 1924 MILLER, HOYT, Esq., East Shore Road, Great Neck, Long Island, New York, U.S.A.
- 1897 MILNE, J. GRAFTON, Esq., M.A., 118 Southmoor Road, Oxford.
- 1921 MILNE, MRS. J. GRAFTON, 118 Southmoor Road, Oxford.
- 1910 MITCHELL LIBRARY, THE, Glasgow, The Librarian.
- 1898 *MONCKTON, HORACE W., Esq., F.L.S., F.G.S., 3 Harcourt Buildings, Temple, E.C. 4, and Whitecairn, Wellington College Station, Berks.
- 1920 MONTAGU, ALFRED C., Esq., 8 Essex Villas, W. 8.
- 1888 MONTAGUE, LIEUT.-COL. L. A. D., Penton, near Crediton, Devon.
- 1905 MOORE, WILLIAM HENRY, Esq. (address not known).
- 1879 MORRIESON, LIEUT.-COL. H. W., R.A., F.S.A., F.R.S.A., 42 Beaufort Gardens, S.W. 3.
- 1904 MOULD, RICHARD W., Esq., Newington Public Library, Walworth Road, S.E. 17.

ELECTED

- 1916 *MYLNE, EVERARD, Esq., Mount Stuart, 81 Bristol Road, Weston-super-Mare.
- 1909 NAGG, STEPHEN K., Esq., 1621 Master Street, Philadelphia, U.S.A.
- 1906 NEWBERRY LIBRARY, The Librarian, Chicago, U.S.A.
- 1905 *NEWELL, E. T., Esq., President of the American Numismatic Society, 156th Street, West of Broadway, New York, U.S.A.
- 1924 NORDHEIM, E., Esq., 86 Heimhuderstrasse, Hamburg.
- 1916 OGLE, CHRISTOPHER, Esq., M.A., Austin Friars House, E.C. 2.
- 1897 *O'HAGAN, HENRY OSBORNE, Esq., Riverhome, Hampton Court.
- 1882 OMAN, PROF. SIR CHARLES, M.P., K.B.E., M.A., LL.D., F.S.A., F.B.A., All Souls College, Oxford, *President*.
- 1925 OMAN, CHARLES CHICHELE, Esq., B.A., Victoria and Albert Museum, S.W. 7.
- 1911 OPPENHEIMER, HENRY, Esq., F.S.A., 9 Kensington Palace Gardens, W. 8.
- 1904 d'ORBELIANI, COL. ROBERT, F.R.G.S., Foreign Dept., National City Bank, Madison Avenue and 42nd Street, New York City, U.S.A.
- 1922 PAKENHAM, IVO, Esq., 8 Queen St., Curzon Street, W. 1.
- 1903 PARSONS, H. ALEXANDER, Esq., Dalmuir, Cedar Avenue, Rickmansworth.
- 1926 PEARCE, J. W. E., Esq., 10 Cromwell Place, S.W. 1.
- 1894 PERRY, HENRY, Esq., Middleton, Plaistow Lane, Bromley, Kent.
- 1917 PHIPPS, LIEUT.-COL. P. RAMSAY, F.R.G.S., 17 St. James's Court, S.W. 1.
- 1888 PINCHES, JOHN HARVEY, Esq., Whitehill Cottage, Meopham, Kent.
- 1915 POYSER, A. W., Esq., M.A., 64 Highfield Street, Leicester.
- 1923 PRAGUE, Bibliothéque de l'Université, Czecko-Slovakia.
- 1903 PRICE, HARRY, Esq., Arun Bank, Pulborough, Sussex.
- 1911 PRICHARD, A. H. COOPER, Esq. (address not known).
- 1913 RAO, K. ANANTASAMI, Esq., Curator of the Government Museum, Bangalore, India.
- 1890 RAPSON, PROF. E. J., M.A., M.R.A.S., 8 Mortimer Road, Cambridge.

ELECTED

- 1923 RAVEL, MONSIEUR O., 7 Bd. de Lorraine, Pointe Rouge, Marseilles.
- 1909 RAYMOND, WAYTE, Esq., 489 Park Avenue, New York City, U.S.A.
- 1903 REGAN, W. H., Esq., 17 Queen's Road, Bayswater, W. 2.
- 1876 *ROBERTSON, J. DRUMMOND, Esq., M.A., 65 Ladbroke Grove, Notting Hill, W. 11.
- 1911 *ROBINSON, E. S. G., Esq., B.A., 23 Upper Phillimore Gardens, W. 8.
- 1910 ROGERS, REV. EDGAR, M.A., O.B.E., 5 Essex Villas, W. 8.
- 1919 ROSE, EDWARD E. PILKINGTON, Esq., I.C.S., Loughton, Essex.
- 1924 ROWE, CAPTAIN F. G. C., Oakwood House, Barnet Wood Lane, Ashted, Surrey.
- 1903 RUBEN, PAUL, Esq., Ph.D., Alte Rabenstrasse, 8, Hamburg, Germany.
- 1919 RYAN, V. J. E., Esq., Grand Hôtel des Avants, Montreux, Switzerland.
- 1916 SAINT LOUIS NUMISMATIC SOCIETY, Washington University, St. Louis, Mo., U.S.A.
- 1872 *SALAS, MIGUEL T., Esq., 247 Florida Street, Buenos Ayres.
- 1916 *SALISBURY, F. S., Esq., M.A., Limbrick Hall, Harpenden, Herts.
- 1919 SAVAGE, W. LISLE, Esq., 11 Faith Street, Maidstone, Kent.
- 1917 SEABY, B. A., Esq., Oxford Circus House, W. 1.
- 1926 SEABY, MISS MILDRED, Oxford Circus House, W. 1.
- 1907 *SELTMAN, CHARLES T., Esq., M.A., 39 Barton Road, Cambridge.
- 1890 SELTMAN, E. J., Esq., Villa Maria, S. Giorgio a Cremano, Naples.
- 1913 SHIRLEY-FOX, J. S., Esq., R.B.A., Rossetti Studios, Flood Street, S.W. 3.
- 1896 SIMPSON, C. E., Esq. (address not known).
- 1893 *SIMS, BRIG.-GENERAL R. F. MANLEY-, C.M.G., D.S.O., 163 Strand, W.C. 2.
- 1896 SINHA, KUMVAR KUSHAL PAL, M.A., RAIS OF KOTLA, Kotla, Agra, India.
- 1918 *SLIGO, THE MARQUESS OF, F.S.A., F.R.G.S., 7 Upper Belgrave Street, S.W. 1.
- 1905 SNELLING, EDWARD, Esq., 26 Silver Street, E.C. 2.
- 1909 SOUTZO, M. MICHEL, 8 Strada Romana, Bucharest.

ELECTED

- 1922 SPENCER-CHURCHILL, CAPT. E. G., Northwick Park, Blockley.
 1894 SPINK, SAMUEL M., Esq., 16-18 Piccadilly, W. 1.
 1925 SPINK, MARTIN S., Esq., B.A., 16-18 Piccadilly, W. 1.
 1902 STAINER, CHARLES LEWIS, Esq., Woodhouse, Iffley, Oxford.
 1922 STARKEY, W. BEAMONT, Esq., Lyonsdown, Ilfracombe.
 1914 *STREATFEILD, MRS. SYDNEY, 22 Park Street, W. 1.
 1910 SUTCLIFFE, ROBERT, Esq., 21 Market Street, Burnley, Lanca.
 1914 SYDENHAM, REV. EDWARD A., M.A., The Vicarage, Wolvercote, Oxford.
 1885 SYMONDS, HENRY, Esq., 19 Ellenborough Park N., Weston-super-Mare.
- 1896 *TAFFS, H. W., Esq., 35 Greenholm Road, Eltham, S.E. 9.
 1879 TALBOT, COL. THE HON. MILO G., C.B., Bifrons, Canterbury.
 1919 TARAPOREVALA, VICAJI D. B., Esq., Junction of Babulnath and Chowpatti Roads, Chowpatti, Bombay.
 1917 TAYLOR, GLEN A., Esq., 63 Lewis Road, Neath, Glamorgan.
 1892 *TAYLOR, R. WRIGHT, Esq., M.A., LL.B., F.S.A., 8 Stone Buildings, Lincoln's Inn, W.C. 2.
 1887 THAIRLWALL, F. J., Esq., 12 Upper Park Road, N.W. 3.
 1925 THOMAS, CECIL, Esq., 7 Gloucester Terrace, S.W. 7.
 1920 THOMAS, J. ROCHELLE, Esq., Elm House, Ellison Road, S.W. 13.
 1918 THORBURN, PHILIP, Esq., 71 South Side, Clapham Common, S.W. 4.
 1894 TRIGGS, A. B., Esq., 33 Macquarie Place, Sydney, New South Wales.
- 1921 VALENTINE, W. H., Esq., 60 Upper Kennington Lane, S.E. 11.
 1912 VAN BUREN, DR. A. W., American Academy, Porta San Pancrazio, Rome.
 1916 VANES, REV. J. A., Wesleyan Mission, Shimoga, Mysore, India.
 1899 VLASTO, MICHEL P., Esq., 12 Allée des Capucines, Marseilles, France.
- 1923 WALES, The National Museum of, Cardiff.
 1888 WALKER, R. K., Esq., M.A., J.P., Watergate, Meath Road, Bray, Ireland.

ELECTED

- 1924 WALLWORTH, I. N. G., Esq., Fairbanks, Stanley Park Road, Carshalton.
- 1897 WALTERS, FRED. A., Esq., F.S.A., 28 Great Ormonde Street, W.C. 1, and St. Mildred's, Temple Ewell, Dover, *Hon. Secretary.*
- 1911 WARRE, FELIX W., Esq., O.B.E., M.C., 128 Church Street, W. 8.
- 1920 *WATSON, COMMANDER HAROLD NEWALL, R.N., Belmont, 10 Curzon Park, Chester.
- 1901 *WATTERS, CHARLES A., Esq., Springfields, Park Road, Hayton, Liverpool.
- 1917 WATTS, GERALD A., Esq., Drumlerry, Londonderry.
- 1901 WEBB, PERCY H., Esq., M.B.E., 4 and 5 West Smithfield, E.C. 1, *Hon. Treasurer.*
- 1885 *WEBER, F. PARKES, Esq., M.D., F.S.A., 13 Harley Street, W. 1.
- 1899 WELCH, FRANCIS BERTRAM, Esq., B.A., 1 Rue Salamine, Salonica.
- 1920 *WHEELER, ERNEST H., Esq., 56 Caledonian Road, N. 1.
- 1915 WHITEHEAD, R. B., Esq., M.A., I.C.S. (retd.), M.R.A.S., St. John's College, Cambridge.
- 1921 WILKINSON, SURGEON-COMMANDER E. A. G., The Cottage, Bredob, Tewkesbury.
- 1908 WILLIAMS, T. HENRY, Esq., 15 Stanwick Road, W. 14.
- 1910 WILLIAMS, W. I., Esq., Beech Villa, Nelson, Cardiff.
- 1881 WILLIAMSON, GEO. C., Esq., F.R.S.L., Burgh House, Well Walk, Hampstead, N.W. 3.
- 1906 WILLIAMSON, CAPT. W. H. (address not known).
- 1906 WOOD, HOWLAND, Esq., Curator of the American Numismatic Society, 156th Street, W. of Broadway, New York, U.S.A.
- 1920 WOODWARD, W. H., Esq., 39 Harley House, N.W. 1.
- 1920 *WOODWARD, A. M. TRACEY, Esq., Chinese P.O. Box No. 1044, Shanghai, China.
- 1903 WRIGHT, H. NELSON, Esq., I.C.S. (retd.), 42 Ravenscroft Avenue, N.W. 11.
- 1920 WYMAN, ARTHUR CRAWFORD, Esq., 29 Place Dauphine, Paris I.

ELECTED

1922 YOANNA, A. DE, Esq., B.A., M.D., 111 Pierrepont Street,
Brooklyn, N.Y.

1880 YOUNG, ARTHUR W., Esq., 12 Hyde Park Terrace, W. 2.

1919 ZIEGLER, PHILIP, Esq., Lilly Villa, Victoria Park,
• Manchester.

HONORARY FELLOWS

ELECTED

- 1898 HIS MAJESTY VICTOR EMMANUEL III, KING OF ITALY,
Palazzo Quirinale, Rome.
- 1903 BAHRFELDT, GENERAL DER INFANTERIE A. D., PROFESSOR
MAX VON, Dr.Phil., Zinksgarten Strasse 2, Halle (Saale),
Germany.
- 1898 BLANCHET, M. ADRIEN, Membre de l'Institut, 10 Bd.
Émile Augier, Paris XVI.
- 1926 DIEUDONNÉ, MONSIEUR A., Conservateur des Medailles,
Bibliothèque Nationale, Paris.
- 1899 GABRICI, PROF. DR. ETTORE, S. Giuseppe dei Nudi 75, Naples.
- 1904 KUBITSCHKE, PROF. J. W., Pichlergasse, 1, Vienna IX.
- 1893 LOEBBECKE, HERR A., Cellerstrasse, 1, Brunswick.
- 1904 MAURICE, M. JULES, 15 Rue Vaneau, Paris VII.
- 1926 +MÜNSTERBERG, DR. RUDOLF, Kunsthistorisches Museum,
Vienna.
- 1899 PICK, DR. BEHRENDT, Münzkabinett, Gotha.
- 1895 REINACH, M. THÉODORE; Membre de l'Institut, 2 Place des
États-Unis, Paris.
- 1926 TOURNEUR, M. VICTOR, Conservateur des Medailles, Biblio-
thèque Royale, Brussels.
-

MEDALLISTS

OF THE ROYAL NUMISMATIC SOCIETY

ELECTED

- 1883 CHARLES ROACH SMITH, Esq., F.S.A.
1884 AQUILLA SMITH, Esq., M.D., M.R.I.A.
1885 EDWARD THOMAS, Esq., F.R.S.
1886 MAJOR-GENERAL ALEXANDER CUNNINGHAM, C.S.I., C.I.E.
1887 JOHN EVANS, Esq., D.C.L., LL.D., F.R.S., P.S.A.
1888 DR. F. IMHOOF-BLUMER, Winterthur.
1889 PROFESSOR PERCY GARDNER, Litt.D., F.S.A.
1890 MONSIEUR J. P. SIX, Amsterdam.
1891 DR. C. LUDWIG MÜLLER, Copenhagen.
1892 PROFESSOR R. STUART POOLE, LL.D.
1893 M. W. H. WADDINGTON, Sénateur, Membre de l'Institut, Paris.
1894 CHARLES FRANCIS KEARY, Esq., M.A., F.S.A.
1895 PROFESSOR DR. THEODOR MOMMSEN, Berlin.
1896 FREDERIC W. MADDEN, Esq., M.R.A.S.
1897 DR. ALFRED VON SALLET, Berlin.
1898 THE REV. CANON W. GREENWELL, M.A., F.R.S., F.S.A.
1899 M. ERNEST BABELON, Membre de l'Institut, Paris.
1900 PROFESSOR STANLEY LANE-POOLE, M.A., Litt.D.
1901 S. E. BARON WLADIMIR VON TIESENHAUSEN, St. Petersburg.
1902 ARTHUR J. EVANS, Esq., M.A., F.R.S., F.S.A.
1903 M. GUSTAVE SCHLUMBERGER, Membre de l'Institut, Paris.
1904 HIS MAJESTY VICTOR EMMANUEL III, KING OF ITALY.
1905 SIR HERMANN WEBER, M.D.
1906 COMM. FRANCESCO GNECCHI, Milan.
1907 BARCLAY V. HEAD, Esq., D.Litt., D.C.L., Ph.D., Corr. de l'Inst.
1908 PROFESSOR DR. HEINRICH DRESSSEL, Berlin.
1909 HERBERT A. GRUEBER, Esq., F.S.A.
1910 DR. FRIEDRICH EDLER VON KENNER, Vienna.
1911 OLIVER CODRINGTON, Esq., M.D., M.R.A.S., F.S.A.
1912 GENERAL-LEUTNANT MAX VON BAHRFELDT, Hildesheim.
1913 GEORGE MACDONALD, Esq., M.A., LL.D.
1914 JEAN N. SVORONOS, Athens.
1915 GEORGE FRANCIS HILL, Esq., M.A.
1916 M. THÉODORE REINACH, Membre de l'Institut, Paris.
1917 L. A. LAWRENCE, Esq., F.S.A.
1918 Not awarded.
1919 M. ADRIEN BLANCHET, Membre de l'Institut, Paris.
1920 H. B. EARLE-FOX, Esq., and J. S. SHIRLEY-FOX, Esq.
1921 PERCY H. WEBB, Esq.
1922 FREDERICK A. WALTERS, Esq., F.S.A.
1923 PROF. J. W. KUBITSCHKEK, Vienna.
1924 HENRY SYMONDS, Esq., F.S.A.
1925 EDWARD T. NEWELL, Esq., New York.
1926 R. W. MACLACHLAN, Esq., Montreal.

PROCEEDINGS OF THE
ROYAL NUMISMATIC SOCIETY.

PROCEEDINGS OF THE
ROYAL NUMISMATIC SOCIETY.

SESSION 1925—1926.

OCTOBER 15, 1925.

PERCY H. WEBB, Esq., M.B.E., Treasurer, in the Chair.

The Minutes of the Meeting of May 21 were read and approved.

The following Presents received since the May Meeting were announced, and thanks ordered to be sent to their donors:

1. *Archaeologia Aeliana*, Series IV, Vol. i.
2. *Archaeologia Cantiana*, Vol. xxxvii.
3. *Antiquaries Journal*, Vol. v, Pt. 3.
4. *Fornvännen Meddelanden*, 1924.
5. *Journal of the Royal Society of Antiquaries of Ireland*, 1925, Pt. 1.
6. *Men whose Fathers were Men; from Messrs. Baldwin and Sons, Ltd.*
7. *Mémoires de la Société des Antiquaires du Nord*, 1920-24.
8. *Mémoires de la Société des Antiquaires de l'Ouest*, 1924, Pt. 4—1925, Pt. 1.
9. *Proceedings of the Cambridge Antiquarian Society*, Vol. xxvi.
10. G. Severeanu, (a) *Monnaies de la Mœsie Inférieure*.
(b) *Monnaie inédite de Kallatis; from the Author.*

Mr. William Gilbert exhibited a second brass of Domitius Domitianus (Cohen 1), and another of the rarer type (Cohen 2), reading IMP . C . LVCIVS DOMITIVS, both from a small

find made early in 1924 in Egypt; there were twenty-three in the hoard (twenty-two of Type 1 and one of Type 2). Mr. Gilbert also showed a first brass of Livia, wife of Augustus, from the Santamaria 1924 Sale (lot 55), and Levis Sale (lot 260), with large flan in exceptional condition.

Mr. V. J. E. Ryan showed six sestertii of Domitian and Hadrian.

Mr. Lawrence, Mr. Webb, and Mr. H. P. Hall also showed coins of Domitian in illustration of the paper. Mr. Lawrence also showed a specimen of the Phoenix badge of Queen Elizabeth in silver and a South African sovereign of 1925.

Mr. Harold Mattingly read a paper entitled "Some Studies in the Reign of Domitian". The Flavian dynasty, he said, rendered great service to Rome, and Domitian, though hated of the aristocracy, was no unworthy successor to his father and brother. In his mint arrangements on the whole he followed Vespasian. The types throw much light on the history of the reign. A series of divine attributes sometimes set on thrones alluded to the lectisternia held in A. D. 80. A fine series of sestertii commemorate the German wars. The Saecular games of A. D. 88 are recorded in almost all their details, and a series of temples on the denarii record the Emperor's buildings. The precise meaning of some of the commoner types was discussed and some light thrown on Domitian's cult of Minerva and his own claims to divinity.

NOVEMBER 19, 1925.

PROF. SIR CHARLES OMAN, K.B.E., M.P., LL.D., F.S.A.,
F.B.A., President, in the Chair.

The Minutes of the Meeting of October 15 were read and approved.

Messrs. J. W. E. Pearce and Cecil Thomas were proposed for election.

Mr. Fredk. A. Walters, F.S.A., exhibited two bronze coins of Corinth of Julius Caesar and M. Antonius and an unpublished halfpenny of David II of Scotland unknown to Burns.

Mr. L. A. Lawrence, F.S.A., showed a fine forgery of a bonnet-piece of James V struck on a half-sovereign of Victoria.

Mr. W. Gilbert showed a billon coin of Dryantilla (Vierordt Sale, lot 2379) and a third brass of Martinianus (Levis Sale, lot 996).

Mr. G. C. Haines showed an unpublished follis of Focas of Constantinople, year 2, with Roman numeral.

Mr. L. G. P. Messenger showed a Mexican revolutionary 10 centavo piece of 1915 and an aluminium 10 centime British Prisoner of War camp token.

Mr. W. H. Valentine showed a portrait medal of the Chevalier d'Eon.

Mr. B. A. Seaby on behalf of Messrs. Spink & Son, Ltd., showed the cast of the Oxford crown withdrawn from the Brunn Sale.

The following Presents to the Society were announced, and thanks ordered to be sent to their donors :

1. Annual Report of the Smithsonian Institute, 1923.
2. Antiquaries Journal, October, 1925.
3. Mitteilungen des Deutschen Archäol. Inst. in Rom, 1923-4.
4. Sotheby's Coin Sale Catalogues, 1922-5; *presented by Messrs. Sotheby, Wilkinson, and Hodge.*
5. A note on coins struck for Tarim, by Sir John A. Bucknill; *from the Author.*
6. Zeitschrift für Numismatik, 1925, Pts. 3 and 4.

Prof. Sir Charles Oman read a paper entitled "Some Problems of the Corinthian Coinage". (This paper is printed in this volume of the *Numismatic Chronicle*, pp. 20-35.)

Mr. Percy H. Webb read a note on the smaller denominations at the end of the third century in which he emphasized the importance of distinguishing silvered pieces from copper. (This paper is printed in this volume of the *Numismatic Chronicle*.)

DECEMBER 17, 1925.

PROF. SIR CHARLES OMAN, K.B.E., M.P., LL.D., F.S.A.,
F.B.A., President, in the Chair.

The Minutes of the Meeting of November 19 were read and approved.

Messrs. Cecil Thomas and J. W. E. Pearce were elected Fellows of the Society.

Mr. Fredk. A. Walters, F.S.A., exhibited a denarius of Tetricus II, with bare head, a type only known to Cohen in gold.

Mr. Webb showed a sovereign of 1925 of the Sydney Mint.

The President showed a false ten-shilling piece of Oxford of Charles I, of which no genuine specimen is known.

Mr. W. Gilbert showed a billon coin of Jotapianus *rev.* VICTORIA AVG from the Levis Collection (lot 378).

Mr. A. H. Lloyd read a paper on a find of Greek coins from Western Sicily. (This paper was printed in the *Numismatic Chronicle*, 1925, pp. 277-301.)

JANUARY 21, 1926.

PROF. SIR CHARLES OMAN, K.B.E., M.P., LL.D., F.S.A.,
F.B.A., President, in the Chair.

The Minutes of the Meeting of December 17, 1925, were read and approved.

The following Presents to the Society were announced, and thanks ordered to be sent to their donors :

1. G. F. Hill. Becker the Counterfeiter. Pt. II; from Messrs. Spink & Son, Ltd.

2. Syria, 1925, Pt. 3.

Mr. James Hunt Deacon was proposed for election as a Fellow of the Society.

Mr. W. Gilbert showed a coin of Zenobia from the Weber and Vierordt Collections, and a halfpenny of William and Mary having stamped on it the reverse die of a token of Thomas Brinkwellor of Foxearth in Essex, 1657 (a token of exceptional rarity).

Mr. Fredk. A. Walters, F.S.A., showed an Irish groat of Henry VII, struck from a blundered die, and not double struck as might appear.

Mr. Webb, Mr. Lawence, Mr. Hill, Mr. Mattingly, and the President discussed the legend BRI in the exergue of two recently discovered coins of Carausius. (See *Numismatic Chronicle*, 1925, pp. 336-42.)

The President read a paper on the "Sulla's Dream" denarius of Aemilius Buca, in which he held the scene related to Sulla and not to Endymion. (This paper is printed in this volume of the *Numismatic Chronicle*, pp. 36-42.)

Mr. H. D. McEwen read a note on the legend ZIZ on coins of Panormus. (See *Numismatic Chronicle*, 1925, pp. 393-4.)

FEBRUARY 18, 1926.

PERCY H. WEBB, Esq., M.B.E., Treasurer, in the Chair.

The Minutes of the Meeting of Jan. 21 were read and approved.

The following Presents to the Society were announced, and thanks ordered to be sent to their donors:

1. Antiquaries Journal, 1926, Pt. 1.
2. F. Friedensburg. Die Münze in der Kulturgeschichte; *from the Publishers.*
3. W. Jesse. Quellenbuch zur Münzgeschichte; *from the Publishers.*
4. Revue Numismatique, 1925, Pts. 3-4.

Mr. Gilbert showed two square London tokens of the seventeenth century of Francis Backhous of Jewin Street and an unpublished one of John Willett of Coleman Street and read the following note:

It is perhaps scarcely necessary to remark that tokens struck on a square flan are scarce, only twenty-three different specimens being described in Williamson's work for the whole of the country, and I think my fellow collectors will agree with me when I say that of these twenty-three there are only two which can be considered common, viz. Graymer of Bakewell in Derbyshire and Dedicot of Bewdley in Worcestershire. The remaining twenty-one are all more or less rare and most of them are very rare. Of the 3,543 tokens assigned to London in Williamson's work one only (No. 1567, Francis Backhous of Jewin Street) is a square one, and I am exhibiting a very fine specimen of this token (which is exceedingly rare) from my cabinet to-night. I also have the pleasure of exhibiting another square token of London, quite unpublished and, I believe, unique. It reads:

Obv. JOHN . WILLETT . AGAINST . LONDON. A cock in a hoop.

Rev. WALL . IN . COLEMAN . STREET . HIS . HALF . PENNY . 1669 (in six lines).

I learn from the Registers of All Hallows in London Wall, that John Willett married Grace Wilks in that church on January 2, 1665, and so we know from his token he survived both the plague and the great fire of London, although the fire raged along Coleman Street to quite close to London Wall, probably to within a couple of houses of the issuer, when it turned suddenly westward.

Mr. Webb read the following note on "The Silver-washing of Roman Coins":

Dr. Scott has ascertained by assay that this wash is of silver, and the Managing Director of Messrs. R. J. Rodd, Ltd., the electroplaters, has been good enough to give some attention to the matter.

He is of opinion that the method of silvering employed was what is known to-day as "Mercurial Silvering" with an alloy composed of two parts silver, one part mercury, and one part soda, forming a paste which could be applied by rubbing, and would not be costly.

I exhibit two very similar coins of the first period of the Reform of Aurelian, one of which bears the original covering somewhat dulled by 1,700 years of existence, while the other has been washed by Mr. Rodd. It will be seen that the appearance, except as to brightness and "texture" of the two washes, seems to be identical.

Sir Arthur Evans read a paper on "Select Sicilian and Magna Graecian Coins". (This paper is printed in this volume of the *Numismatic Chronicle*, pp. 1-20.)

MARCH 18, 1926.

PROF. SIR CHARLES OMAN, K.B.E., M.P., LL.D., F.S.A.,
F.B.A., President, in the Chair.

The Minutes of the Meeting of February 18 were read and approved.

Monsieur A. Dieudonné, Paris, Monsieur V. Tourneur, Brussels, and Dr. R. Münsterberg, Vienna, were elected Honorary Fellows of the Society.

Mr. Fredk. A. Walters, F.S.A., exhibited a profile groat of Henry VII of the earliest type with n.n. greyhound's head, not more than two or three of which are known.

Mr. Lionel L. Fletcher showed four brockages of the first bronze penny of Queen Victoria and two brockages of the seventeenth-century token of Andrew Lloyd, Dublin, the

only Irish seventeenth-century token of which brockages are known.

Mr. W. Gilbert showed six silver brockages, viz. sixpence of William III, obverse; shilling of George I, 1820, reverse; half-crown of George IV, obverse; shilling of Victoria, first issue, obverse; florin of Victoria, first issue, reverse; half-crown of Victoria, 1874, obverse.

Mr. Robinson showed on behalf of M. Ravel a Corinthian stater struck on a Tarentine brockage.

Mr. Allan showed four British India brockages on behalf of Mr. H. Nelson Wright.

Mr. A. H. F. Baldwin exhibited the following coins of Tang-Chi-Yao, the Governor of Yunnan Province:

Gold: 10 DOLLARS, with portrait—proofs in red and yellow gold. 5 DOLLARS, rough native work—plain reverse. 10 DOLLARS, with 1 added below flags. 5 DOLLARS, with 2 added below flags.
Silver: HALF-DOLLAR, with portrait. *Copper*: 50 CASH, with portrait.

Mr. L. A. Lawrence read a paper on "Brockages" in which he discussed the methods by which they might be made and the periods in which they occur.

APRIL 15, 1926.

PERCY H. WEBB, Esq., M.B.E., Treasurer, in the Chair.

The Minutes of the Meeting of March 18 were read and approved.

The evening was devoted to Exhibitions.

Mr. G. C. Haines showed sixteen gold Byzantine coins, most of them in fine condition.

Mr. C. J. Bunn showed a bronze coin of Martinianus (Cohen no. 4), but without eagle in the field.

Mr. William Gilbert showed a bronze medallion of Antinous struck at Alexandria, from the Bement Collection (lot 940).

Mr. L. A. Lawrence, F.S.A., showed a number of boxes containing coins, counters, &c., in metal and other materials, used for marking scores at whist; they date from about 1787 to 1810. The boxes show the use to which many of the counters were put and that they were made for this purpose and not as medalets.

Mr. L. L. Fletcher showed the following seventeenth-century tokens of Co. Kildare: James Swanton of Athy; Tho. Cusek of Blackwroth; Tho. Aderley of Castledermot; Ralph Bullock of Maynooth; and Tho. Burrows of Monastereven; also a series of Greek coins issued by Count Capo d'Istria in 1828-31, and a series of modern Continental copper coins of one centime in value.

Dr. S. H. Fairbairn showed two medallions by Palloy, who had the contract for the demolition of the Bastille in 1789, and made medals from the metals obtained there.

Mr. F. A. Harrison exhibited the following coins illustrating the development of a United Italy:

1. Lucca, Republic. Ecu of 1754.
2. Eridania, Piedmont, occupied by the French from 1796-1814, then returned to Sardinia.
3. Venice, Louis Manin (last Doge), 1789-97.
4. Venice, Republic, 1797. 10 Lire, Zecca.
5. Genoa, Republic, 1797. 8 Lire. 12 Carlini, Anno VII.
6. Naples, Republic, 1798-9.
7. Rome, Republic, 1798-9. Scudo, no date.
8. Liguria (Genoa), Republic, 1798-. 8 Lire.
9. Cispadane and Transpadane Republic, 1796-7. 10 Paoli, struck at Bologna, 1796.
10. Cisalpine Republic, 1797-1802. Scudo, 6 Lire. Anno VIII.
11. Italy, Kingdom. Napoleon I, 1805-14. 5 Lire. /08.
12. Venice, Republic, 1848. 5 Lire. 22 Maezo, 1848.
13. Lombardy, Provisional Government, 1848. 5 Lire. Milan.

14. Piedmont, Republic, 1848. Mezzo Scudo. Anno VII.
15. Rome, Republic, 1849. 40 Baiocchi. Billon.
16. Lucca, Duchy. Charles Louis, 1814-47. 2 Lire.
17. Tuscany, Victor Emanuel Re Eletto, 1859-61.
18. San Marino, Republic, 1906. Lire.
19. Etruria, Grand Duchy. Leopold II, 1824-59.
20. Two Sicilies. Francis II, 1859-60. 120 grani.
21. Lombardo-Venetia. Francis Joseph (of Austria), 1848-66.
5 Lire, 1853.
22. Papal States. Pius IX, 1846-61. Scudo 1853.
23. United Italy. Victor Emanuel (of Sardinia), 1861-76.
5 Lire, 1869.

MAY 20, 1926.

PROF. SIR CHARLES OMAN, K.B.E., M.P., LL.D., F.S.A.,
F.B.A., President, in the Chair.

The Minutes of the Meeting of April 15 were read and approved.

The Kent Numismatic Society was elected to the Society.

Messrs. Henry Garside and C. E. Blunt were appointed auditors.

Prof. Sir Charles Oman exhibited three rare Byzantine silver coins of Theodore Lascaris, Michael VII, and John Palaeologus.

The Rev. Edgar Rogers exhibited the following series of Greek Imperial coins in fine condition:

Pontus. Amasia: Severus Alexander, *rev.* Altar, eagle above;
Chariot of Helios.

Bithynia. Hadrian, *rev.* Temple.

Troas. Abydos: Sept. Severus, *rev.* Leander swimming the Hellespont.

Ionis. Alliance of Ephesus and Alexandria: Gordian III, *rev.*
Cultus statue of Artemis with Serapis and Isis:

- Alliance of Smyrna and Laodicea; M. Aurelius, *rev.* Emperor and city seated.
- Caria.* Antioch ad Maeandrum: Gallienus, *rev.* Bridge over Maeander.
- Lydia.* Alliance of Bagis and Temenothyra: Gallienus, *rev.* Mên and Tyche; Tralles. *IEPA ΣΥΝΚΑΗΤΟΣ*, *rev.* Herakles.
- Phrygia.* Ancyra: Antinous, *rev.* Mên with anchor; Temenothyra: Otacilia, *rev.* Apollo.
- Lycia.* Myra: Tranquillina, *rev.* Goddess in shrine.
- Pisidia.* Apollonia: Gallienus, *rev.* Temple.
- Cilicia.* Mallus: Macrinus, *rev.* Tyche seated; Seleucia ad Calycadnum; Treb. Gallus, *rev.* Busts of Apollo and Tyche.
- Mesopotamia.* Singara: Gordian III and Tranquillina, *rev.* Tyche seated.
- Alexandria.* Severus Alexander, *rev.* Nike.

Mr. Harold Mattingly read a paper on "The Roman Budget and Financial Policy". Beginning with the Roman Republic, he argued that the facts of the early coinage point to a series of manipulations designed to clear war-debts. After the Second Punic war stability was attained. But, by the time of the Gracchi, the State finances were again causing anxiety and there was a sharp conflict between the "optimates" and "populares", who stood, respectively, for and against a policy of inflation. In contrast with the Senate the early emperors made good money an important point in their programme. But, in the second and third centuries, expenditure on the army and on the poor of Rome reached such a pitch that the budget would not balance. The attempts to remedy this by inflation finally led to the financial *débâcle* under Gallienus.

Aurelian restored, as far as he was able, the earlier system: in place of a "two denarius piece" (the "Antoninianus"), he seems, however, to have struck a "two sestertius piece" (the XX . I . piece).

JUNE 17, 1926.

ANNUAL GENERAL MEETING.

PROF. SIR CHARLES OMAN, K.B.E., M.P., LL.D., F.S.A.,
F.B.A., President, in the Chair.

The Minutes of the Annual General Meeting of June 18, 1925, were read and approved.

Messrs. L. G. P. Messenger and W. H. Valentine were appointed scrutineers of the ballot.

Miss Mildred Seaby and Monsieur Claudius Côté were proposed for election.

The following report of the Council was laid before the Society :

The Council have again the honour to lay before you their Annual Report on the state of the Royal Numismatic Society.

It is with deep regret that they have to announce the deaths of the following seven Fellows of the Society :

Sir John Fox Dillon.
R. W. McLachlan, Esq.
Col. W. J. Massy.
W. Sharp Ogden, Esq.
G. Philipsen, Esq.
G. L. Shackles, Esq.
Surg.-Capt. A. E. Weightman.

They have also to announce the resignations of the following seven Fellows :

R. H. D'Elboux, Esq.	Lt.-Col. G. B. Pears.
Miss Agnes Elverson.	Bryan Pontifex, Esq.
Sir Evelyn Grant Duff.	A. J. B. Wace, Esq.
W. J. Hocking, Esq.	

On the other hand they have to report the election of the following three Honorary Fellows:

Monsieur A. Dieudonné, Paris.

Dr. H. Münsterberg, Vienna.

Monsieur Victor Tourneur, Brussels.

Also the following four Ordinary Fellows:

James Hunt Deacon, Esq.

J. W. E. Pearce, Esq.

Cecil Thomas, Esq.

The Kent Numismatic Society.

The number of Fellows is therefore:

	Ordinary.	Honorary.	Total.
June, 1925	271	9	280
Since elected	4	3	7
	<hr/> 275	<hr/> 12	<hr/> 287
Deceased	7	—	7
Resigned	7	—	7
	<hr/> 261	<hr/> 12	<hr/> 273

The Council had also decided to award the Society's Medal to Mr. R. W. McLachlan of Montreal in recognition of his long service to the study and encouragement of numismatics in Canada. They regret to hear that Mr. McLachlan died on May 10th last and it is therefore proposed to send the medal to his widow.

The Treasurer's Report which follows was then laid before the Meeting:

STATEMENT OF RECEIPTS AND DISBURSE-

FROM JUNE 1ST, 1925,

Dr.

THE SOCIETY IN ACCOUNT

	£	s	d.
To cost of Chronicle	284	11	7
„ Rent of Rooms	50	0	0
„ Bookbinding	3	7	6
„ Refreshments	6	13	4
„ Purchase of Lantern and Expenses	18	5	0
„ Insurance	1	10	0
„ Sundry Payments	10	17	8
„ Investment £197 19s. 2d. 5% War Loan	200	0	0
„ Research Account	3	17	6
„ Balance carried forward—	£	s.	d.
General Account	241	6	9
Research Account	30	8	8
	<u>271</u>	<u>15</u>	<u>5</u>
	<u>£850</u>	<u>18</u>	<u>0</u>

MENTS OF THE ROYAL NUMISMATIC SOCIETY
TO MAY 31st, 1926.

WITH PERCY H. WEBB, HON. TREASURER.

£r.

	£	s.	d.	£	s.	d.
<i>By Balance in hand, June 1, 1925—</i>						
General Account . . . . .	. 139	8	2			
Research Account . . . . .	. 32	14	2			
				172	2	4
<i>By Subscriptions—</i>						
Ordinary . . . . .	. 310	4	0			
Life . . . . .	. 15	15	0			
Entrance Fees . . . . .	. 4	4	0			
				330	3	0
<i>By Contribution to cost of Plates</i>				3	5	0
<i>„ Sales of Chronicles</i>				108	0	6
<i>„ Dividends and Interest</i>				37	7	2
<i>„ From Bank Deposit</i>				200	0	0
				£850	18	0

PERCY H. WEBB, *Hon. Treasurer.*

Audited and found correct,

HENRY GARSIDE,
CHRISTOPHER E. BLUNT, } *Hon. Auditors.*

June 10, 1926.

The Reports of the Council and of the Treasurer were adopted on the motion of the President.

Sir Charles Oman then handed the Society's Medal to Mr. Allan to be forwarded to Mrs. McLachlan and said:

Mr. Robert Wallace McLachlan was the oldest Fellow of this Society to which he was elected in 1868 and was the doyen of numismatic studies on the American continent. He contributed numerous papers on Canadian coinage and currency to numismatic and antiquarian periodicals in Canada and the United States. His *Canadian Numismatics* is the standard work on the subject. He had also made many contributions on the bypaths of Colonial history, such as his articles on the Medals of the War of 1812 and the Louisburg medals. A member of the Numismatic Society of Montreal since 1865, Mr. McLachlan had been editor of the *Canadian Antiquarian* since 1872. In 1877 he was elected a corresponding member of the American Numismatic Society and later a foreign member of the Belgian Numismatic Society. His work as an antiquarian secured him the Fellowship of the Royal Society of Canada in 1911.

His collection of over 20,000 pieces is one of the finest in America and with his fine library two years ago found a permanent home in Château de Ramezay at Montreal. In placing Mr. McLachlan's name on our list of medallists, we pay a tribute to one who had been for over sixty years a continual stimulus to the study of coins in North America.

Mr. Allan read a letter of acknowledgement from Mrs. McLachlan, thanking the Society for the honour conferred on her late husband.

The President then delivered the following address:

PRESIDENT'S ADDRESS.

THE year 1925-6 has not been one of a very notable or exciting sort in the annals of the Royal Numismatic Society. Our numbers remain much the same, though I regret to see that owing to an exceptionally small list of new elections

our total strength is seven less than in 1924-5—no great deficiency in a body of 275 members. Our meetings have been regular, and the subjects treated at them interesting. On the whole the most striking feature of the year is the happy increase in the size of the *Numismatic Chronicle*, which at last bids fair to resume the goodly proportions of our pre-war volumes. This year three numbers were issued, instead of the two with which we have had to be contented since 1918. And the total of letterpress pages (as opposed to "proceedings" and lists of members) has got back to the satisfactory number of 422—a great contrast to the lowest nadir of our record—252 in 1922: and perceptibly more than any yearly issue since 1915. This improvement is no doubt due in the main to the satisfactory condition of our finances—on which I must congratulate Mr. Treasurer most heartily. We owe him much gratitude for our present state of prosperity. It only remains now that we should complete our restoration to pre-war conditions by publishing the old number of four parts per year—a thing which our balance now renders possible. I think that this final reconstruction of the proportions of the *Journal* would probably have the effect of bringing in more country members to the Society—since it is only the written word which appeals to those numismatists who do not reside in London, and so are prevented from attending our meetings.

I have to report, with all regret, the loss by death of six of our members during the past year. None of them, as it chances, were personally known to me, for without exception they were non-attendants at our monthly gatherings. Nor did any of them ever contribute to the pages of the *Chronicle*.

Sir John Fox Dillon, Bart., J.P. and D.L., joined the Society in 1915. He was an Irish landowner in County Meath, and had a fine collection of Irish and English coins, which perished when his house near Navan was wickedly destroyed by incendiaries, during the period of civil strife which preceded the creation of the Free State.

Colonel William Massy, R.A., had been a fellow of the

Society since 1897. He had a good collection of Greek, more especially Cypriote, coins which he had collected during his service in the East.

Mr. W. Sharp Ogden, F.S.A., had joined the Society in 1898. He never contributed to the pages of the *Chronicle*, but wrote several papers for the *British Numismatic Journal*, notably one on the find of Roman bronze coins on Little Orme's Head in 1873, a hoard extraordinarily rich in London-struck pieces of Constantine and Licinius, and important as showing that the money of Carausius and Allectus continued to circulate in Britain for ten or fifteen years after the fall of the ephemeral "British Empire" of 287-96. He also designed and struck a portrait medal of Shakespeare on the tercentenary of the dramatist's death in 1915.

Surgeon-Captain A. E. Weightman, F.S.A., O.B.E., was one of our few naval members. He had been with us since 1905, and was actively interested in English coins.

Mr. G. L. Shackles, of Hornsea, who joined the Society in 1900, was a Yorkshire antiquary, of repute in his own county as an archaeologist no less than as a numismatist.

But undoubtedly the most generally known of the members whom we have lost in the past year was a foreigner, Gustav Philipsen, of Copenhagen, famous for his vast and valuable collection of ancient Greek coins, a mere portion of which made a notable sale at Munich in 1909. But the sale did not mean that he ceased to collect, and he joined our Society as late as 1920.

To turn to a more cheerful topic than obituaries, I must here chronicle that the Society has this year, for the first time since 1904, elected some foreign honorary fellows—their number, once as high as 19, had dwindled to 9. I am sure that we may congratulate ourselves on having added to our list of members numismatists so distinguished as M. Dieudonné, chief of the French Cabinet des Médailles at Paris, M. Tourneur of Brussels, and Herr Münsterberg of Vienna, head of the Museum of ancient coins there.

Adverting for a moment to subjects of general numis-

matic interest, I must report that the condition of the British silver coinage remains as unsatisfactory as ever, despite the efforts of some of us to impress on the Government the necessity for reform both in artistic production and in purity of metal. The "Austen Chamberlain" 50-per-cent. nickel coinage of 1921-2 has now commenced to show large patches of yellow alloy on a very large proportion of the pieces circulating. Only those which have been lucky in seeing little wear still preserve the white surface. And the later copper-alloyed issue of 1924 has already begun to show the red metal through the silver coating in a good many cases, always on the sovereign's ear and cheek. After a few more years of attrition, it is certain that the whole currency will have this unpleasant discoloured appearance. I wish that I could find any signs of a willingness to revert to purer silver—even if it be only to copy the proportions of the metals in the new coinage of the Irish Free State—which is to be 75 silver to 25 alloy, or that of the Soviet's rouble, at 90 per cent. silver to 10 per cent. base metal. The idea of improving the types on the reverses of the silver currency—the poorest set that has been seen since the Jubilee coinage of 1887—has prospered better. I have now seen the complete and rival sets of all silver denominations from the Crown to the Sixpence, which the Deputy Master of the Mint was good enough to show me. Nearly every one of them is an improvement on the current issue, and I trust that some of them may be in circulation by 1927. The devices are nearly all new, and many of them are very pleasing. It is curious to reflect that, though we never see them, full weight gold sovereigns are being turned out at Pretoria, Sydney, Perth, and Melbourne, though not, alas! at London.

To turn to the record of the meetings of the Society, I can report that the usual nine gatherings took place—the May meeting not having been affected, as some feared might be the case, by the General Strike. It ended just in time to allow us normal methods of access to 22 Russell Square. Beside this annual general meeting of to-day,

I must record seven at which papers were read, and one (that of April 15) which was devoted to exhibitions, after the custom of the last two or three years.

As we have so frequently had occasion to observe in recent years, the energy of our paper-readers has been mainly exerted on ancient classical topics. We long for more helpers like Mr. Lawrence in the field of medieval numismatics: but they seem to prefer to contribute to our journal rather than to be present at our monthly assembly and face the genial criticism of their fellows. I must plead guilty to having helped on the general tendency towards classical studies myself, by reading one paper which endeavoured to fix the sequence of the last issues of the great series of Corinthian *Pegasi*, and another in which I tried to defend Mr. Grueber's explanation of the meaning of the rare but well-known denarius of L. Aemilius Buca, which represents a sleeping man visited by a moon-goddess. Endymion and Selene say M. Babelon and many others. But I have tried to justify the reading of Eckhel and Mr. Grueber, and to show that we have here the celebrated dream of Sulla, recorded by Plutarch, in which the goddess of Cappadocia appeared to him and promised him victory over his enemies of the democratic faction. I hold that the glorification of Sulla, by his step-grandson, Aemilius Buca, was a propagandist move of the optimate party in November or December 44 B.C. Those who think otherwise may find my arguments unconvincing.

My friend Mr. Mattingly has been a sinner like myself in contributing *two* papers on classical subjects in a single year. His first paper was on the types of the Emperor Domitian, of which many deserve more attention than they have generally received. The series with divine attributes, the *fulmen*, &c., often set on thrones, apparently commemorate the "lectisternia" held in A.D. 80 to expiate divine wrath, of which the famous eruption of Vesuvius, which destroyed Herculaneum and Pompeii, was supposed to be a manifestation. The curious figure found on coins of all metals, of a man with a feathered head-dress and long skirts, holding

a shield, is not (as the coin-books have it) a dancing Sallian priest, but the herald who went round to announce the commencement of the secular games, recorded on many other coins of Domitian. His building activities are indicated by other pieces, especially in the sesterce series. And some light was thrown on the emperor's personal cult of Minerva, who appears in so many of his issues, and on his own pretensions to divinity. Mr. Mattingly's second paper, given last month, was on a much wider subject, the general monetary policy of Rome, republican and imperial, as deducible from the issues of her mint—i.e. the relative predominance of one metal or another in various centuries, and the causes why weights and standards were altered. The most puzzling problem of all, perhaps, is why the denarius was fixed as the regular monetary unit in the third century B.C., by a government which persisted in making all official calculations in sesterces. And there are many theories as to the date of the progressive cutting down of the original "libral as", and the relation of its degraded forms to the silver that was running concurrently with it. But knotty as these points may be, it is far harder to construct any rational theory of finance for the distressful third century A.D., with its silvered billon or copper and its all too small supply of gold—on whose exchangeability for token-currency the whole working of the imperial budget must have depended. Till Diocletian reintroduced a real silver coinage, the whole problem of the currency must have been chaotic.

In this last paper Mr. Mattingly ran across the topic of a paper contributed by our genial and learned Treasurer at a previous meeting, when the latter read a discussion on all the smaller denominations of coin current between Gallienus and Diocletian, and pointed out the obvious importance of distinguishing coins which purported to be silver—and which looked like it till they had some wear—and the pieces which were, and looked like, mere copper. It is only in recent years that it has been discovered how common was the custom of issuing silver-washed coins of base metal. For example, till the recent Linchmere hoard turned up,

no one had suspected that the "3rd brass", as we called them, of Carausius, were regularly silver-washed. But in this interesting find, on which Mr. Webb read us a contribution last year, the large majority of the British usurper's coins showed a well-preserved silver coating.

But what was the theoretical exchange power of the silvered coins, with their puzzling inscriptions in the exergue of the reverse—**XX**, and **XXI**, and **XI**—all of which look like indications of value? I am not going to say that I have mastered the interpretation till I shall have read with care the Treasurer's paper, which will no doubt edify us some day in the pages of the *Chronicle*. It wants some elucidation, and I must wait and study the subject once more, ere I feel that I have grasped it.

Having mentioned the name of Carausius in connexion with the Linchmere find, I am naturally led on to speak of the last discovery concerning the mints of that most prolific issuer of odd types. The Keeper of the Coins gave us in March a short paper on two coins of Carausius, one belonging to Lord Barnard and the other to Mr. Lawrence, on which the mint-name **BRI** occurred, instead of the usual **L** of London and **C** of Colchester. Is **BRI**—a town name? Mr. Hill thinks that it can be nothing else, and since no large Roman-British town beginning with these three letters is known, says that they must represent Vriconium (Wroxeter). For in many languages V and B are interchangeable, and there seems to be some evidence this was the case in Roman Gaul—if so, why not in Roman Briton? Wroxeter, one of the very largest towns in the province, and the capital of the *civitas* of the Cornavii, would be a very natural mint-place for a pretender who had not yet got possession of London or Colchester. Unfortunately we have no direct epigraphic evidence for Vriconium having ever been spelt with an initial B, and doubts were raised at our meeting as to the acceptance of the identification. Some thought that it was a shortening of Britannia, or Moneta Britannica. Others that the letter might be read on at the end of the rest of the coin-inscription—**PAX AVG BRI**, or **SALVS**

AVG BRI—the peace or safety of the British emperor. At any rate we secured a lively discussion, and Mr. Hill has provided us with a problem on which future contributors to the *Chronicle* may broach many more theories. For myself I have not quite made up my mind, but have no solution of my own to offer.

Last, but not least in importance among our papers on ancient coins read during this session, is Mr. A. H. Lloyd's account of a very large hoard of Sicilian tetradrachms of the middle years of the fourth century, which he gave at our December meeting, with a fine set of lantern slides to illustrate it. The story is interesting: the find was made by peasants somewhere in the territory of Selinus apparently two years ago. It consisted of nearly 500 pieces, all of the larger denominations—tetradrachms and didrachms—except two archaic drachms of Himera. The number of didrachms was slightly greater than that of tetradrachms, an interesting point being that of Akragas, Gela, and Selinus the didrachms were more common, but of Leontini, Messana, and Syracuse the tetradrachms. This proportion exactly corresponds to the general rarity of the pieces of these places in all collections—every one who has collected Sicilian coins knows that Syracusan didrachms are quite rare objects, but that at Akragas and Gela the didrachm is far more frequently to be met with than the larger coin.

The interest of the hoard, from the historian's point of view, is that it helps most admirably to place in chronological sequence in correlation to each other many archaic and transitional coins, whose exact date was hitherto very much a matter of conjecture. When one obtains such a large find as 500 pieces, it becomes important to note what cities are represented, and in what proportions. And it is still more useful to note which pieces of each town are badly worn, which in fair preservation, and which almost fresh from the mint. Mr. Lloyd's acute deductions as to date are helped by the fact that Camarina and Himera are very poorly represented, and mainly by coins of the latest style among its contents—which would seem to hint that

the burying of the hoard took place not long after 461. The large number of Syracusan tetradrachms include many more of the archaic pieces ascribed to the tyrant Gelo than of the transitional coins with the pistrix symbol, which, beginning under Hiero, continue into the times of the republic which followed the expulsion of the house of Deinomenes. This would seem to prove that the hoard was buried nearer to 460 than to 450. A very valuable indication of the history of the burying is that there are absolutely no coins of Segesta in it, a place which we know to have been coining hard just at the period to which the majority of the other pieces belong. The deduction, as Mr. Lloyd points out, is that if such a large collection of money found near Selinus contains no currency of Selinus's nearest neighbour, Segestan coins must have been impossible to pass at Selinus at the moment, i. e. the states must have been at war. There is evidence from inscriptions that continuous fighting was going on in Western Sicily in and before 455, and that Segesta was the chief combatant on one side. Presumably Selinus was the leader of the other confederacy, as we might guess from later happenings in the times of Thucydides—the two cities would never agree.

A study of the plates annexed to Mr. Lloyd's most valuable paper will be of immense use to the collector of Sicilian coins in the way of teaching him which pieces of which towns were roughly contemporary—their state of preservation gives evidence that cannot be gainsaid.

A shorter paper by Mr. Lloyd, on the mysterious Punic inscription **ZIZ** on certain coins struck by the Carthaginians in Sicily, has given rise to a controversy between him and Mr. McEwen, from which the Society cannot fail to obtain benefit, even if we consider that neither has proved his case in the opinion of the other. Controversy always leads to the extension of knowledge.

The only paper not dealing with a purely classical subject read to us this year was Mr. Lawrence's interesting contribution on "Broekages"—those curious mis-struck coins which by some fault in the manipulation of the dies show the

correct type on one side and an incuse reproduction of it on the other, the reverse (or the obverse) device being deficient. Clearly a coin has stuck in either the "trussell" or the "pile", and the next coin following it has received the reversed impression of the coin which has stuck, not of the die which should have marked it. This fault in striking is found as often in modern coins as in ancient, and has not been eliminated by the introduction of machinery. For "brockaged" coins of the last issue of George III and the first of Victoria are as common as those of certain periods of the republican series of Rome. The puzzling thing is that while some ages seem almost lacking in "brockages", in others they are quite common. In the Greek series they are decidedly rare, which suggests that a thick coin is less likely to stick in the die than a thinner one. Yet in many medieval mints, when the coins were excessively thin, brockages are unknown or very rare. Probably there is something in the suggestion that care in going through the rows of newly-struck coins, and rejecting the defective ones, has been more common in certain ages than in certain others.

I was not present at the "exhibition" meeting in April last, so cannot speak from personal knowledge of the pieces shown. But I understand that the show was a successful one, and that certain pieces, particularly Mr. Gilbert's magnificent bronze medallion of Alexandria with the head of Antinous, caused some excitement. Mr. Harrison showed a large and interesting series illustrating the political vicissitudes of nineteenth-century Italy.

Other exhibitions at our ordinary meetings I have seen, and noted many rare coins—I must specially congratulate Mr. Gilbert on his billon Sulpicia Dryantilla and his small brass Martinian—both shadowy personages whose coins I have myself long sought in vain. I note that a foreign numismatist, in one of the continental journals, has recently tried to prove that Dryantilla was the mother and not the wife of the usurper with whom she is associated. This seems to me an odd view, and I should like to see the

evidence for it. Mr. Fred Baldwin's exhibition of large Chinese gold coins [a new phenomenon] was interesting. A note of warning to collectors, showing that the art of forgery of British coins is not extinct, was given by an exhibit of Mr. Lawrence's—an attractive half "bonnet-piece" of James V of Scotland, struck on the *flan* of a modern nineteenth-century half-sovereign.

Of communications which were not read to the Society there are a few more on modern subjects than there are in the papers actually rehearsed at our meetings. I note an article by Mr. Malcolm on a large find of coins of the currency which was circulating in the last year of James II. As the most recent date in it is 1688, and there are no pieces of the prolific 1689 issue of William and Mary, it seems almost certain that the great hoard of over 5,000 silver coins were buried in the midst of the troubles of the Revolution. And as the site was the back premises of the old Custom-House at Bristol the chance is that it was buried by an official connected with the taking of port-dues. Mr. Malcolm suggests that he may have been a dishonest official, hiding private speculations and *douceurs*. But the date 1688 rather points to the possibility of his being a "Jacobite" who hid the bulky silver of his official chest, and fled with the gold. For it is impossible that a man who had 5,000 crowns and half-crowns and shillings should not also have had a considerable sum in guineas and half-guineas. We may guess that when Bristol fell into the hands of the Revolutionary party, he put his gold in his saddle-bags, buried his silver, and rode to report to the king to whom he owed allegiance.

The Keeper of Coins has given us a paper on three medals of Nicolò Orsini, count of Pitigliano, a famous condottiere of the later fifteenth century, showing curious alteration in the type of the medal, of which the general design remained unaltered, but the inscription was reconstructed on at least one occasion, since there are three separate versions of it, one obviously of a good many years after the first casting of the medal. Miss Farquhar sends us an addition or supplement to her paper of last year on the

silver counters of the seventeenth century, which appeared in the *Chronicle* of 1925. We hope ere long to have the Keeper's usual annual note on British Museum acquisitions, always a most valuable element in our pages, and known to include for this last year some very important pieces. If my address this year is somewhat shorter than usual, I can only plead that subject-matter is this year less abundant than in the Junes of 1923-4-5. I trust that 1926 may yet provide us in its autumn session with much interesting stuff, and that 1927 may (if it be not too much to hope) see the long-deferred and oft-promised appearance of new types for the reverses of our deplorable "silver" currency. Meanwhile, new numismatic interest can best come from the literary efforts of our own members, and I will finish by exhorting those of our fellowship who have not yet tried their hand on the *Chronicle* to send to our Editors some new and epoch-making contributions. Can none of them discover a Roman-British piece of King Arthur, solve the meaning of **PERERIC** on the coins of Stephen's time, or turn up a gold piece of Offa with his portrait, to destroy the unique pre-eminence of his Saracenic "Mancus"? And with this exhortation I dismiss the Society till it shall meet again in October.

Colonel H. W. Morrieson proposed and Mr. William Gilbert seconded a vote of thanks to the President for his address.

The result of the ballot for office-bearers for 1926-7 was announced as follows:

President.

PROFESSOR SIR CHARLES OMAN, K.B.E., M.P., M.A., LL.D.,
F.S.A., F.B.A.

Vice-Presidents.

SIR ARTHUR J. EVANS, M.A., D.LITT., LL.D., PH.D., F.R.S.,
F.S.A., F.B.A.

GEORGE F. HILL, Esq., M.A., D.LITT., LL.D., F.S.A., F.B.A.

Treasurer.

PERCY H. WEBB, Esq., M.B.E.

Secretaries.

JOHN ALLAN, Esq., M.A., M.R.A.S.

FREDERICK A. WALTERS, Esq., F.S.A.

Foreign Secretary.

GEORGE C. BROOKE, Esq., M.A.

Librarian.

L. A. LAWRENCE, Esq., F.S.A.

Members of the Council.

V. B. CROWTHER-BEYNON, Esq., M.A., F.S.A., M.B.E.

LADY EVANS, M.A.

MISS HELEN FARQUHAR.

HENRY GARSIDE, Esq.

WILLIAM GILBERT, Esq., M.S.A.

G. C. HAINES, Esq.

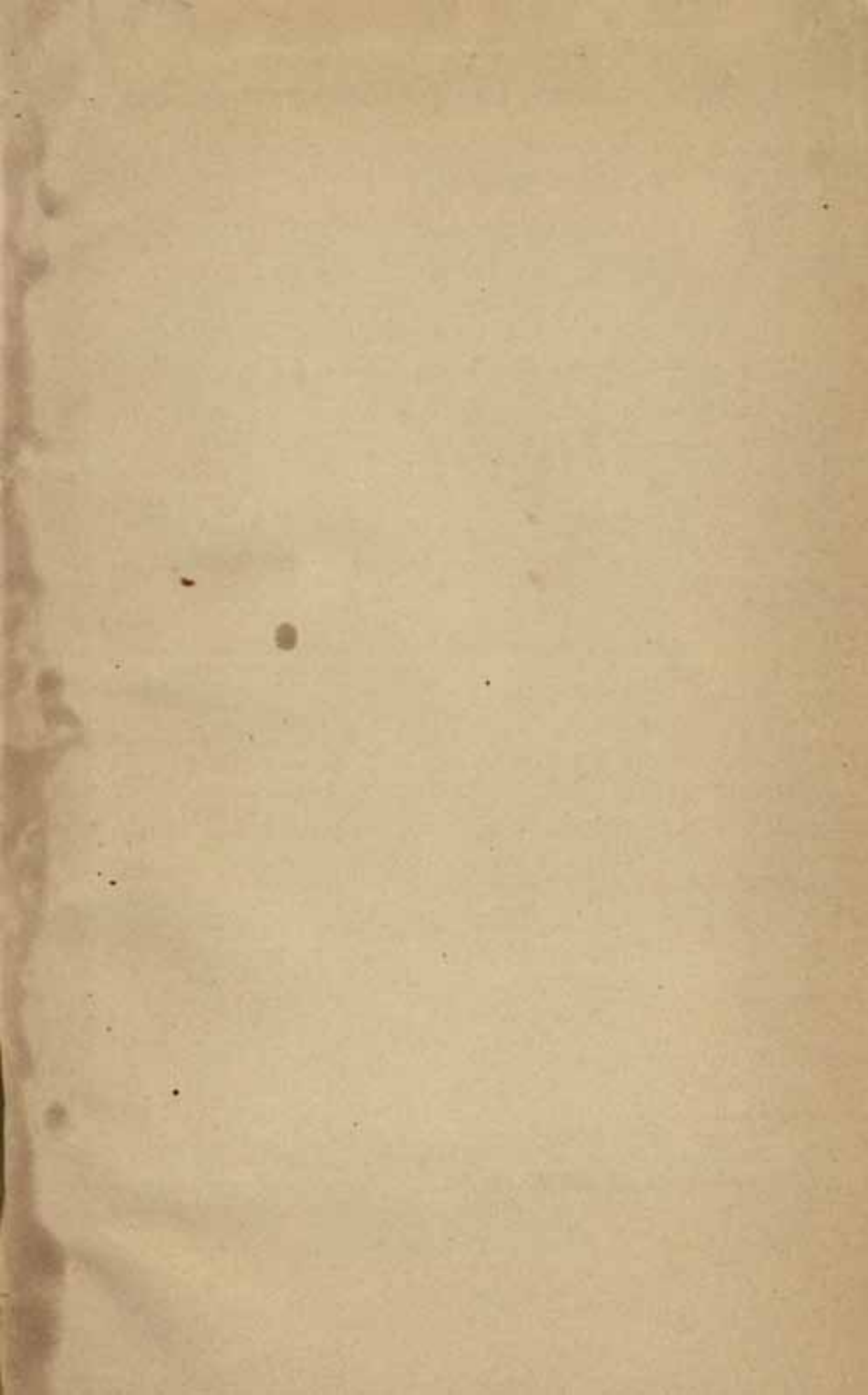
HAROLD MATTINGLY, Esq., M.A.

LIEUT.-COL. H. W. MORRIESON, R.A., F.S.A., F.R.S.A.

REV. EDGAR ROGERS, M.A., O.B.E.

F. S. SALISBURY, Esq., M.A.

The President then proposed a vote of thanks to the auditors and scrutineers of the ballot and adjourned the Society till October 21.



CENTRAL ARCHAEOLOGICAL LIBRARY,
NEW DELHI

~~Borrower's Record~~

ue No. 737.05/N.C.-1234

CENTRAL ARCHAEOLOGICAL LIBRARY,
NEW DELHI

Issue Record

Catalogue No. 737.05/N.C.-1234

Author— Numismatic Chronicle

Title— Numismatic Chronicle
V Srs: Vol. VI: L926

Borrower No.	Date of Issue	Date of Return
Shri S. H. Shastri	29-4-59	5-5-59
— Do —	20-5-59	26-5-59

P.T.O.