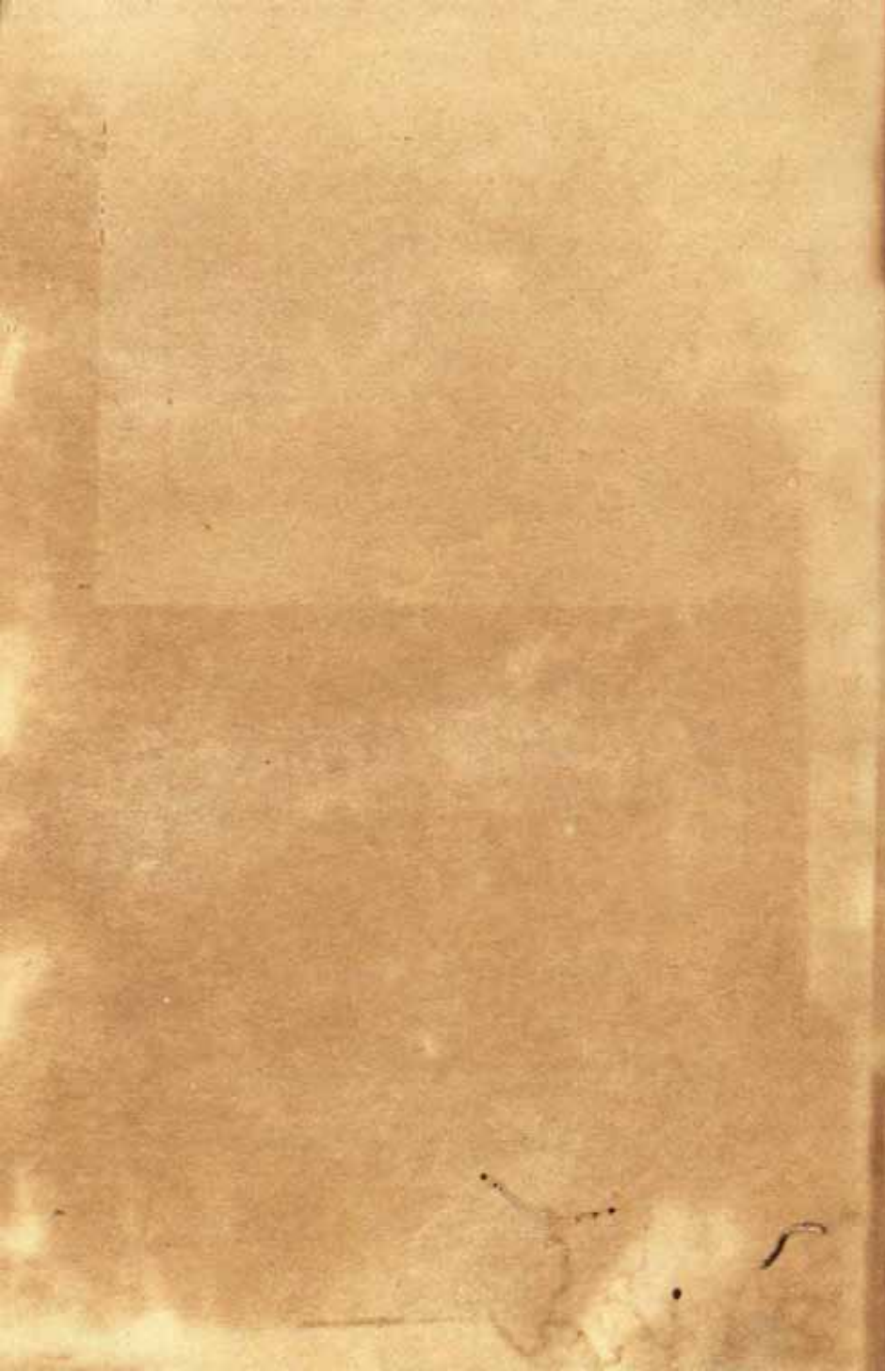


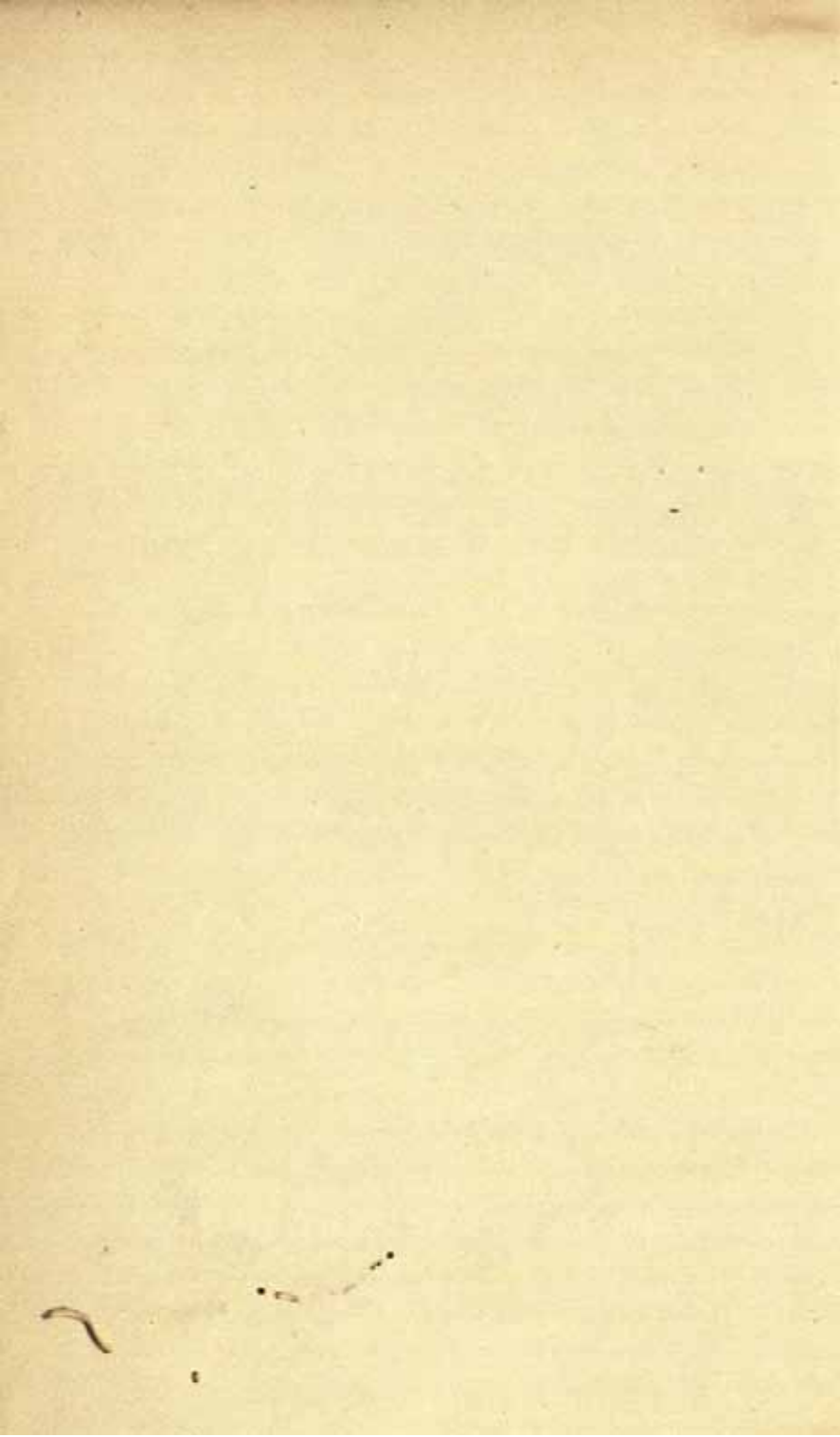
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THE
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THE
NUMISMATIC CHRONICLE
AND
JOURNAL
OF THE
ROYAL NUMISMATIC SOCIETY

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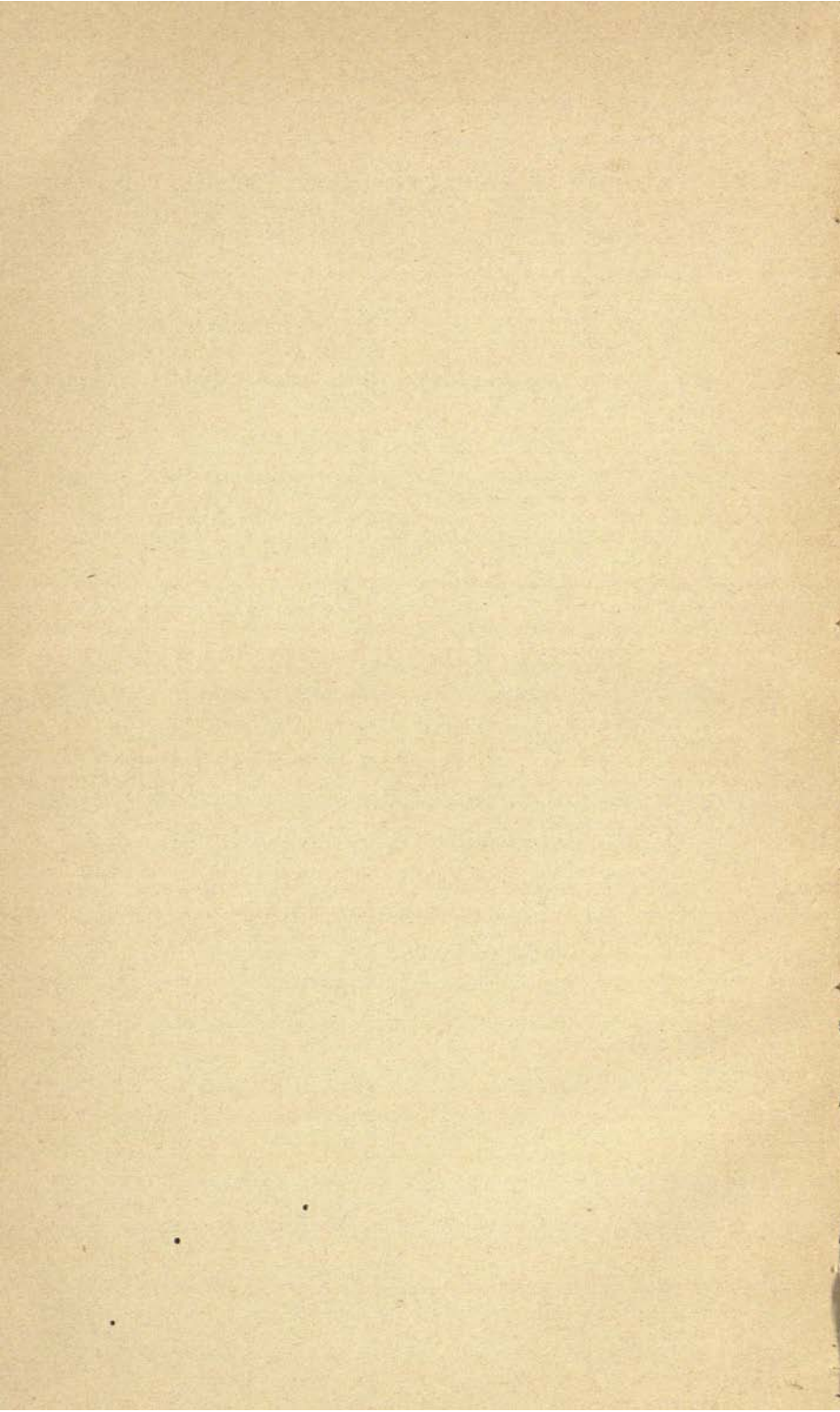
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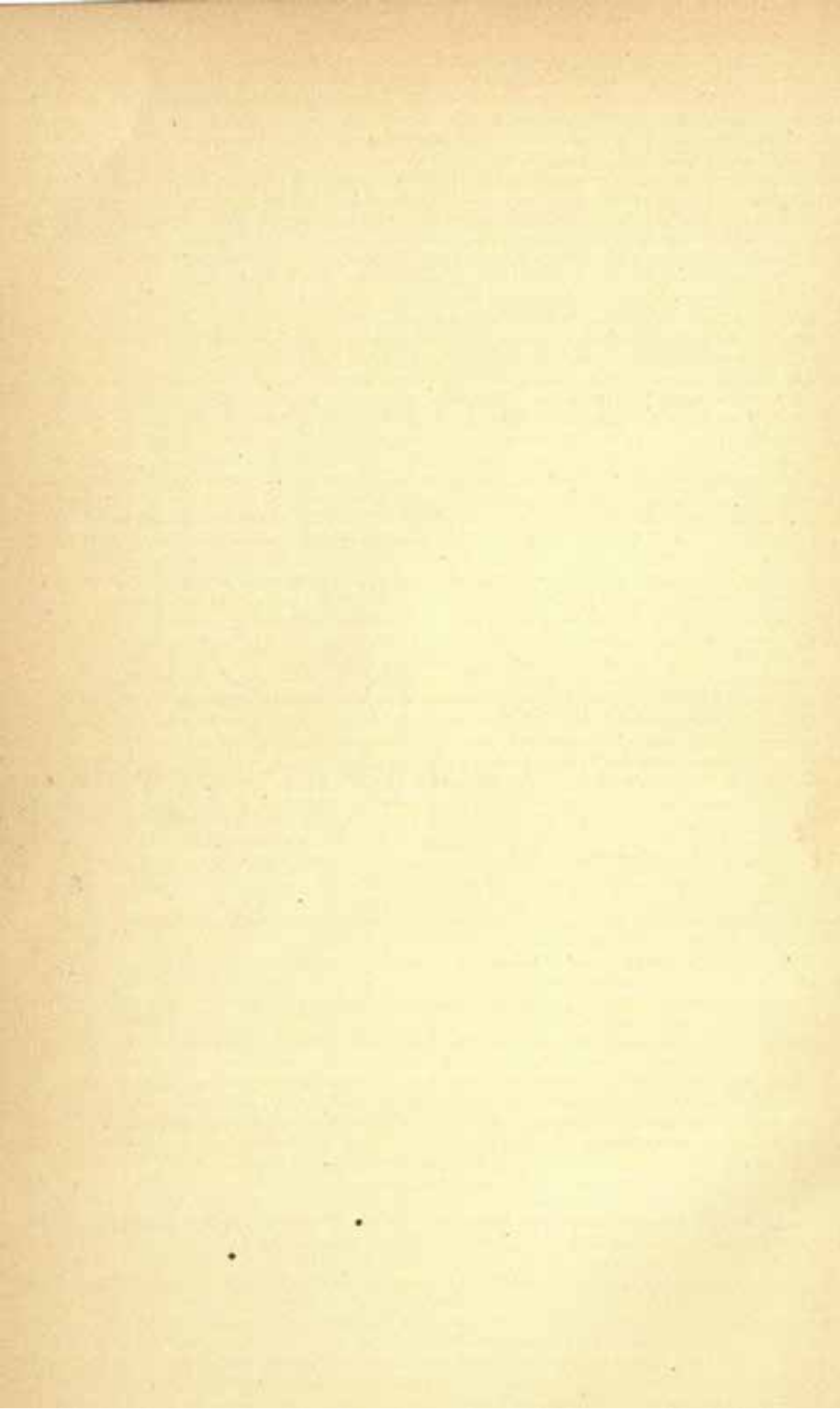
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I.

JUNO MONETA.

MANY of the stories which kindled our youthful imaginations have faded into myths under the light of modern research, and can no longer be regarded as belonging to history. It has been proposed to add yet another to the list, for Dr. Assmann of Berlin has endeavoured to show that the story told by the Romans to explain the name *Moneta*, given to the goddess *Juno* of the Citadel, is involved with difficulties, which disappear if we regard the word "*Moneta*" as derived from a Punic word inscribed on the Carthaginian tetradrachms.

THE TITLE "*MONETA*."

Dr. Ernst Assmann of Berlin published a paper on *Juno Moneta* (*Klio*, vol. vi. p. 477), in which he puts forth a new and most interesting derivation of the word "*Moneta*." He suggests that this word was derived from the inscription on the silver Carthaginian coins which were current in Sicily and Italy before the Punic Wars.

There are three well-known types bearing the word "*Machanat*," meaning "camp."

I. *Obv.*—Deified head of Dido to left.

Rev.—Lion to left, and palm-tree behind.

In exergue, שַׁעַם מַחֲנֵה ("people of the camp").

II. *Obv.*—Head of Persephone surrounded by dolphins.

Rev.—A horse's head; exergue, עמ מרונה.

III. *Obv.*—Head of the Tyrian Herakles, Melkarth, in lion-skin; copied from coins of Alexander the Great.

Rev.—Same as II. Exergue: עמ ה מרונה or עמ מרונה.

Dr. Assmann has shown from the Septuagint that the "ch" sound of ט was softened or omitted, and the word would be pronounced Ma-anat. For instance, the Septuagint wrote 'Ραάβ for רחב and 'Ρειόμ for ריום (Ezra iv. 8), and 'Ροβοάμ for רחבעם (1 Kings xi. 43).

We have the same word מרונה in Gen. xxxii. 8, 11, the Septuagint rendering of which is *παραμυβλή*, "a fortified camp or castle." In the title of Psalm liii. we have the Greek word *Μαελίθ* for מלח. In 2 Chron. xi. 18 the name מלח is written *μολάθ* by the Septuagint writers. We see, then, from these examples how easily the Phoenician word מרונה might have been pronounced *μονεθ*, and how the Romans may have spoken of these coins as *Moneta*.

We have all been taught hitherto that the word "Moneta," applied to Juno, signified the goddess who warned or reminded; but we neglected to think that such a form as "Moneta" is a strange one if derived from *monere*. The ancients did not understand the science of philology, and made many mistakes, such as their derivation of Neptune from *Nando* (Cic., *De Nat. Deor.*, ii. 26), or tunica from *tuendo* (Varro, *De L. L.*, v. 14). We do not find any other verb of the same conjugation as *monere* presenting a noun like *moneta*. There is no such word as *habeta* from *habere*, or *taceta* from *tacere*, or *voleta* from *volere*, or *terreta* from *terrere*, or *doleta* from

dolere, or *jaceta* from *jacere*. We have no such words as *egeta* or *tabeta*. Have we, therefore, any reason for making an exception for the word "Moneta"?

If we accept Dr. Assmann's derivation of the word "Moneta," we are only adding another to the list of Semitic words received by the Romans, such as *tunica*, *saccus*, *canna*, *asinus*, *mappa*, and *cadus*.

According to Polybius (3. 22, 24), the Carthaginians in 348-300 B.C. granted the Romans in Punic Sicily full freedom of trade, and the same privileges as their own citizens. No doubt during the years the Romans were at peace with the Carthaginians, the traders brought many of the silver pieces marked "Machanat" to Italy, and they would be well known in Rome, and especially by Romans who traded in Magna Graecia and Sicily.

The word "Moneta" would thus be associated with money, but if the Romans knew the meaning of the word "Machanat" it would be associated also with war, with camps or hosts. The temple of Juno Moneta was built or rebuilt in the fourth century, on the hill near the Capitol, where now stands the Church of the Ara Coeli. Livy tells us (vi. 20; vii. 28) that the site had been that of the house of Manlius. It is not likely that a vow would have been made by a soldier on the battlefield to build a temple to the Juno of marriage and womanhood; but if we realize the warlike nature of the old Juno Regina, identified with Astarte by the Carthaginians, we see how appropriate was the vow made by Camillus in 345 B.C.

The mint was probably established on the arx as a site both fortified, secluded, and near the military watch.

If the mint was established to coin money for the army, and if the Carthaginian word "Machanat," which

had been used for money, was recognized as meaning "fortified camp or castle," we can see how suitable was the precinct of the warlike goddess as a site for the mint. The old *Aerarium* in the temple of Saturn may have been a safe place for the treasury, but not so convenient a site for the mint.

Moreover, if Juno had then been looked upon merely as the divine patroness of women and marriage, the choice of a site near her temple for a place like a mint, with its furnaces and the noise of its workmen, would have been extraordinary; but when we regard Juno as the camp goddess, the holder of the spear, we see how naturally the means for carrying on the wars over which Juno presided, *i.e.* the money, would have been produced near her shrine.

At the time when a mint was established the Romans were aware of the similarity of the Juno Moneta cult with that of Hera, and as the Romans received their art from Magna Graecia, Juno was represented by copies of the images of Hera in those cities. Hence we rarely find Juno represented wearing a helmet. Hera on an ancient Greek vase holds a spear in her hand, but her brow is adorned with a fillet. The heads of Hera on the coins of Magna Graecia are adorned with the sphendone and not with a helmet. So on the coins of T. Carisius and of L. Plaetorius Cestianus, the goddess wears the fillet, not the helmet, and yet is not for that reason to be regarded as the Juno Lucina.

In his recent work on *Historical Roman Coins*, Mr. G. F. Hill says, "There can be little doubt that *Moneta* gave rather than owed its name to the goddess. *Moneta* is the personification of money; and if the

idea she embodies was of Carthaginian origin, we can understand why she became identified with Juno. We may take it, therefore, that the Roman mint was from the first attached to the temple on the Capitol. But in this still comparatively conservative period it is not to be expected that the Romans should represent on their coinage a deity who was a somewhat unsubstantial personification."

Mr. Hill agrees with Dr. Assmann that the name "Moneta" is derived from the coinage rather than from the character of the goddess, and he also agrees that at that early period "a somewhat unsubstantial personification is not to be expected;" the word "moneta" then must have reference to the actual pieces of money, though for a piece of money the Romans used the word "nummus," and no passage of Latin literature supports such a use of "moneta."

We know from Virgil that the Romans in the Augustan age recognized Juno as the patroness of the Punic race, and there is evidence that this was recognized by the Phoenicians in the days of Hannibal. The Romans can hardly have been ignorant of the meaning of the word "Machanat," and probably pronounced it "Monat."

The word "camp" would be a most natural adjective to apply to the goddess of the camp. The interesting point which arises from the consideration of the religious ideas involved is the importance which the cult of Hera, or Juno, assumed at that date in Italy. It is an illustration of the manner in which the Italians were influenced by the Greeks long before the conquest of Greece by the Romans, and also of the unity of idea which underlies the various names given to the conceptions of the ancients concerning the powers above. The attribution

of sex to the higher powers was a form of anthropomorphism.

THE WITNESS OF THE COINS TO THE CULT OF JUNO.

The earliest coin which bears a head of Juno is the triens, issued in Campania after 269 B.C., and belonging to the third period of that coinage (see Fig. 1). This



FIG. 1.



FIG. 2.



FIG. 3.



head is decorated with a sphenon, and a curious horn-like ornament; the hair is rolled in three plaits, and three ringlets hang down behind.

It may be regarded as a head of the goddess Hera Lacinia, to whom the Romans gave the Latin name Juno. It is illustrated on p. 18 of vol. i., *Babelon, Monn. de la Rép. rom.*

Only two silver denarii bear a head of Juno with the

legend MONETA—that of L. Plaetorius Cestianus, issued *circ.* 74 B.C. (see Fig. 2), and that of T. Carisius, issued in 48 B.C. (see Fig. 3). The earlier of these coins bears a head somewhat similar to that on the early Campanian bronze coin. The goddess wears the sphenone, but has not the three pendent ringlets behind. On the reverse is a nude athlete running, bearing a palm and cestus. The head of Juno Moneta on the coin of Titus Carisius is more Roman in appearance; she wears only the taenia, and one curl hangs at the back of the neck. The reverse type shows the tools of the moneyer—the anvil, the tongs, and hammer.

We may consider the veiled head on the denarius of L. Rubrius Dossenus, issued in 85 B.C., among those representing the Juno of the Capitol, because the three obverse types on his denarii are those of the three deities of the Capitol—Jupiter, Juno, and Minerva. The head of Juno on this coin is veiled, and she bears the sceptre of the Juno Regina over her shoulder.

All the other coins bearing a head or figure of Juno represent the Lanuvian Juno Sospita, and were issued by moneyers belonging to families which were derived from Lanuvium.

The names of the families of Lanuvian origin are the Papia, Roscia, Procilia, Mettia, Renia, and Thoria. The coin of C. Renius, issued in 154 B.C., bears on the reverse a goddess driving a biga of goats, and Borghesi considers her to be the Juno of Sparta (*Ἥρα αἰγοφάγος*, *i.e.* "Hera the goat-eater"); but at Lanuvium Juno Sospita was generally represented with a head-dress of goat's skin. It is from an inscription found in Lanuvium that we gather that the family was from that city. Borghesi's remark may help us to see how there may have been

a Greek origin for the symbol of the goddess adopted at Lanuvium.

The only family on whose coins the head of Juno appears which did not apparently originate in Lanuvium is that of the Cornificii, who are said by Cicero to have come from Rhegium.

JUNO AS A ROMAN DIVINITY.

In order to judge how far Dr. Assmann's theory may be worthy of acceptance, it will be necessary first to distinguish the various cults of Juno established in Rome. The earliest, and that which made the greatest impression on the literature, was that which regarded Juno as the Queen of Heaven, the wife of Jove. The temple on the Capitol, in which Jove, Juno, and Minerva were worshipped, was the principal seat of this cult. As we find the Queen of Heaven worshipped in the East under the name Astarte, regarded both as a goddess of love and also of war, so in the West we find a warlike Juno, contemporary with Juno the goddess of married love. And the same double character or two personalities under one name is found in Aegina, where there was the one Aphrodite symbolized by the tortoise, and the other by the goat; the one a Queen of Heaven and goddess of married love, the other a warlike, lawless one.

The Juno of the Capitol is the goddess who was regarded as the patroness of women, and whose titles and surnames all have regard to marriage and female life, as Pronuba, Matrona, Juga, Lucina.

The other Juno the protectress of warriors, was worshipped on the arx, the hill on which now stands the Church of Ara Coeli, and this is the goddess of whom

Dr. Assmann writes, and who should be carefully distinguished from the Juno of the triad on the Capitol.

Ovid, in his *Fasti* (vi. 183), says: "On the summit of the arx, it is handed down, that a temple was built to Juno Moneta according to thy vow, O Camillus; formerly it had been the house of Manlius, who once repulsed the arms of Gaul from Capitoline Jove's (abode)." Her temple on the citadel was dedicated in the year 344 B.C., after the vow of Camillus in the previous year. To this protectress, warriors' vows were made on the battle-field, as by Lucius Furius in 343 B.C., by C. Cornelius Cethegus in 197 B.C. when fighting the Gauls, and by M. Aemilius Lepidus in 187 B.C. during the Ligurian War. Juno Moneta was also called Curitis, but it is not at all certain what that title meant. Some have derived it from a Sabine word *curis*, "a spear," and say the Quirites were the spear-bearers; others, from an inscription, derive the name from *currus*, a chariot: IOVI FVLGVRI, IVNONI CVRRITI IN CAMPO (*Eph. Ep.*, vol. i. p. 39). The words of Festus, "Quiritis Juno Dea Sabinorum, cui bellantes aqua et vino libabant," show that she was regarded as a soldier's deity.

In Italy we find this duplication of a female deity not only in Rome, but also at Croton and throughout Magna Graecia, where Hera, the old earth goddess, was also the goddess of the warrior. In the grounds of her temple the youths hurled spears at shields, in the games held in her honour. It looks as if the cults of Astarte and Aphrodite in the East, and of Juno and Hera in the West, had followed some natural development, for they appear to have grown independently.

Besides the two principal cults of Juno, there were minor shrines which, however, may be connected with

the two main cults. The temple of Juno on the Aventine hill was built to receive the wooden image of the goddess of Veii, a Queen of Heaven, and one in whose honour processions of virgins were wont to be made such as are described by Livy (xxvii. 37).

The temple on the Viminal hill was erected to the same Juno of marriage. Varro says of it, "Et id antiquius quam aedis quae in Capitolio facta" (lib. v. § 158).

As associated with the Juno Moneta, the goddess of war, we may regard the Juno Sospita, who was introduced from Lanuvium, and to whom a temple was built in the Forum Olitorium, *circa* 338 B.C. From the representations of this goddess on the coins of moneyers whose families were derived from Lanuvium, we see that Juno Sospita was a goddess of warriors. The Latins of Lanuvium, like their neighbours the Sabines, evidently worshipped the Juno who bore the spear.

The name Moneta is not necessarily to be connected with the legend about the geese giving warning in her temple on the citadel when the Gauls made their assault in 390 B.C.

The meanings attached by the Romans to the verb *moneo* were wider than the simple idea of warning, and included advising and instructing—*ideas* which the generals of an army would value highly as attributes of their deity.

The vexillum, according to Dr. Assmann, was displayed in her temple, even in time of peace, when the people met in comitium, and a tuft of grass from the grove round her temple was used in the ceremonies connected with the declaration of war. Though no one can doubt Moneta was a goddess of war, yet the meaning of the name was

associated with the idea of a wisdom which was as useful in peace as in war.

Mommsen (vol. i. 225) says, "The oldest registers of the Roman magistrates were preserved in the temple of the goddess of recollection (Juno Moneta)." This fact, if it can be proved, would tend to show that the name was independent of the mint, and that the mint was called Moneta after the goddess, and not the goddess after the mint. Dr. Assmann's theory would imply that the mint gave its name to the goddess.

In fact, we are not limited to a choice between the old derivation of the word from the idea of warning connected with a legend, and the newly proposed derivation from the Punic "Machanat." Moreover, we may agree with Dr. Assmann both in what he says about the unlikelihood of the Romans then forming the word "Moneta," seeing that such a form is not found with other kindred verbs, and also with what he says about Juno as a goddess of war, and yet we may see another explanation of the word which escapes all the difficulties raised as yet, and especially escapes those felt by many in regard to Dr. Assmann's theory.

It is acknowledged that the forms of names are often archaic. Now, if we regard "Moneta" as an archaic formation, showing the old Aryan suffix "-ta" which we meet with in Vesta and Morta (Aul. Gell., iii. xvi.) and if we account for the long *e* as a survival of the original supine of the second conjugation which was later shortened to *-itum*, we thus escape all the difficulties of the old and new derivations. Moreover, the active sense of "Moneta," the reminder or adviser, is also that of "Vesta," the light-giver or fire-giver. There is considerable difficulty in accepting the idea that

"Moneta" came to equal "nummus" on account of its supposed derivation from an inscription on silver Punic coins, which became so common and well known as to give them a name more popular than "nummus."

Coins were commonly called after their distinctive types, as the tortoises, the owls, the Victoriati, but only rarely after a legend or inscription, as in the case of the *philippi*. There is no evidence from finds, or from the commonness of the Punic coins, which would lead us to accept such a theory. The question of the origin of the word "Moneta" appears to belong rather to philologists than numismatists.

As the German publication called *Klio* is not very commonly met with in the homes of English numismatists, I may be excused for bringing this very interesting suggestion of Dr. Assmann to the notice of the members of this Society, in the hope that a discussion of the subject may shed some further light on this obscure question.

A. W. HANDS.

II.

A FIND OF ROMAN DENARII AT CASTLE BROMWICH.

AT Castle Bromwich, four miles north-east of Birmingham, a hoard of Roman denarii was discovered during ploughing operations on Shard End Farm, in the early



FIG. 1.

part of the summer of 1909. The coins were found about two feet below the surface, and had been buried in a pot, pieces of which were found with them. It measured $5\frac{1}{2}$ ins. in height and $5\frac{1}{4}$ ins. in diameter. The

restoration of the pot (Fig. 1) was made by Mr. Cozens, to whom I am indebted for the drawing. The find being clearly treasure trove, the coins were at once handed over to the Treasury, and no inquest was held. They are mostly in poor condition.

Of the denarii of Imperial times, of which 176 were found, the earliest belongs to the second consulship of Vespasian (70 A.D.), and the latest is of the reign of Commodus (Cos. I, Tr. Pot. I, *i.e.* 177 A.D.). The Emperors represented on them are—

Vespasian (<i>Aug.</i> 69; <i>died</i> 79 A.D.)	21
Titus (<i>Aug.</i> 79; <i>died</i> 81 A.D.)	3
Domitian (<i>Aug.</i> 81; <i>died</i> 96 A.D.)	7
Nerva (<i>Aug.</i> 96; <i>died</i> 98 A.D.)	3
Trajan (<i>Aug.</i> 98; <i>died</i> 117 A.D.)	32
Hadrian (<i>Aug.</i> 117; <i>died</i> 138 A.D.)	44
Sabina (<i>Aug.</i> 128; <i>died</i> 136 A.D.)	2
Antoninus Pius (<i>Aug.</i> 138; <i>died</i> 161 A.D.)	26
Faustina the Elder (<i>Aug.</i> 138; <i>died</i> 141 A.D.)	10
Marcus Aurelius (<i>Aug.</i> 161; <i>died</i> 180 A.D.)	17
Faustina the Younger (<i>Aug.</i> 147; <i>died</i> 176 A.D.)	9
Lucius Verus (<i>Aug.</i> 161; <i>died</i> 169 A.D.)	1
Commodus (<i>Aug.</i> 177; <i>died</i> 192 A.D.)	1
Total	176

With them were found five legionary coins of Marcus Antonius. These coins were struck by Marcus Antonius shortly before the battle of Actium, to pay the troops in his service; their frequent occurrence in finds of denarii of the first and second centuries A.D. and even later proves them to have continued in circulation for a long time under the Emperors. This was due to the fact that being so much debased they were not

necessarily put out of circulation like the rest of the silver coinage, when the standard was reduced by Nero. Pliny (*Hist. Nat.*, xxxiii. 46) says: "*Miscuit denariis triumvir Antonius ferrum.*"

The find also contained eighteen base denarii; these were struck in copper and washed in silver. It was a common practice of the Emperors to circulate these forgeries with the good money in order to increase the revenue which they derived from the coinage. These eighteen pieces, though not treasure trove, were sent to the Treasury with the silver coins; they are thus identified—

Marcus Antonius, legionary coin	1
Vespasian	2
Trajan	2
Hadrian	4
Antoninus Pius	4
Marcus Aurelius	4
Faustina the Younger	1
19 Total	18

The following description of the coins gives references to Cohen's *Médailles Impériales*, and notices omissions and mistakes in the second edition of his work. The arrangement is chronological under Emperors, coins of the same date being placed alphabetically by their reverse inscriptions.

DESCRIPTION OF COINS.

MARCUS ANTONIUS.

LEGIONARY COINS: 82-81 B.C.

No.	Obverse.	Reverse.
1, 2	ANT AVG III VIR · R · P · C · Galley to r.	LEG · VIII. Aquila between two signa. Cohen, ² I. p. 41, 35.
3, 4, 5	" "	Similar, number of legion illegible.

VESPASIANUS.

COS II: 70 A.D.

6, 7, 8	IMP CAESAR VES- PASIANSVS AVG. Head r., laureate.	COS ITER TR POT. Pax (?), seated l., holding caduceus and ears of corn. Cohen, ² I. p. 275, 36 (omitted in 2nd edition).
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COS III: 71 A.D.

9, 10	IMP CAES VESP AVG P M. Head r., laureate.	TRI POT II COS III PP. Pax, seated l., holding caduceus and olive-branch. Cohen, ² I. p. 412, 566.
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COS IV: 72-73 A.D.

11, 12	IMP CAES VESP AVG P M COS IIII. Head r., laureate.	AVGV R TRI POT. Simpulum, aspergillum, capis and lituus. Cohen, ² I. p. 371, 45.
13	" "	CONCORDIA AVGVSTI. Concordia, seated l., holding patera and cornucopiae. Cohen, ² I. p. 373, 74.
14	" "	TRI POT. Vesta, seated l., holding simpulum. Cohen, ² I. p. 411, 563 (VESPA, misprint for VESP).

VESPASIANUS—*continued.*COS IV: 72-73 A.D.—*continued.*

No.	Obverse.	Reverse.
15	IMP CAES VESP AVG P M COS IIII. Head r., laureate.	VESTA. Vesta, standing l., holding sim- pulum and sceptre. Cohen, ² I. p. 413, 574.
16	" "	VICTORIA AVGVSTI. Victory, standing r., holding palm and crowning a signum. Cohen, ¹ I. p. 296, 229 (omit- ted in 2nd edition).

COS V: 74 A.D.

17	IMP CAESAR VES- PASIANVS AVG. Head r., laureate.	PON MAX TR P COS V. Vespasian, seated r., holding olive-branch and sceptre. Cohen, ² I. p. 395, 364.
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COS VI: 75 A.D.

18	IMP CAESAR VES- PASIANVS AVG. Head r., laureate.	PON MAX TR P COS VI. Victory, standing l., on a ship's prow, holding wreath and palm. Cohen, ² I. p. 395, 368.
19	" "	Same legend. Female figure, seated l., holding a branch. Cohen, ² I. p. 395, 371.

COS VII: 76 A.D.

20	IMP CAESAR VES- PASIANVS AVG. Head r., laureate.	COS VII. Eagle displayed on altar, its head turned to l. Cohen, ² I. p. 377, 120.
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COS VIII: 77-78 A.D.

21	Same legend. Head l., laureate.	COS VIII. Mars, standing l., holding trophy and spear. Cohen, ² I. p. 377, 125.
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IMP. XIX: 78 A.D.

22	Same legend. Head r., laureate.	IMP XIX. Modius with seven ears of corn. Cohen, ² I. p. 383, 216.
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VESPASIANUS—*continued.*

UNDATED.

No.	Obverse.	Reverse.
23	IMP CAESAR VESP AVG. Head r., laureate.	PONTIF MAXIM. Winged caduceus. Cohen, ² I. p. 897, 890. Attributed by de Salls to 74 A.D.
24	CAESAR VESPA- SIANVS AVG. Head r., laureate.	ANNOVA AVG. Female figure, seated l., holding her drapery in her r. hand, and leaning her l. arm on the back of her chair. Cohen, ² I. p. 370, 28. Attributed by de Salls to 78 A.D.

STRUCK AFTER THE DEATH OF VESPASIAN IN 79 A.D.

25	DIVVS AVGVSTVS VESPASIANVS. Head r., laureate.	EX SC. Victory, standing l., erecting a trophy; below, Judaea seated. Cohen, ² I. p. 378, 144.
26	" "	SC on a shield borne by two capri- corns; below, a globe. Cohen, ² I. p. 406, 497.

TITUS.

Cos IV: 75 A.D.

27	T CAESAR IMP VES- PASIAN. Head r., laureate.	PONTIF TR P COS IIII. Female figure, seated l., holding a branch. Cohen, ² I. p. 443, 162.
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Cos VIII: 80 A.D.

28	IMP TITVS CAES VESPASIAN AVG PM. Head r., laureate.	TR P IX IMP XV COS VIII PP. Thunderbolt, winged, on a throne. Cohen, ² I. p. 455, 316.
29	" "	Same legend. Curule chair, on which is a wreath. Cohen, ² I. p. 455, 318.

DOMITIANUS.

Cos V: 76 A.D.

30	CAESAR AVG F DO- MITIANVS. Head r., laureate.	COS V. Wolf and twins to l. Below, a small boat. Cohen, ² I. p. 474, 51.
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A FIND OF ROMAN DENARII AT CASTLE BROMWICH. 19

DOMITIANUS—*continued.*

Cos VII: 81 A.D.

No.	Obverse.	Reverse.
31	CAESAR DIVI F DOMITIANVS COS VII. Head r., laureate.	PRINCEPS IVVENTVTIS. A goat, standing l. within a laurel wreath. Cohen, ² I. p. 504, 390.

Cos XIV: 88-89 A.D.

32	IMP CAES DOMIT AVG GERM P M TR P VII. Head r., laureate.	IMP XIII COS XIII CENS PPP. Athena Promachos to r. Cohen, ² I. p. 491, 285.
33	" "	Same legend. Athena Promachos to r. on a double ship's prow; at her feet an owl. Cf. Cohen, ² I. p. 492, 287, and see note.

Cos XVI: 92 A.D.

34	IMP CAES DOMIT AVG GERM P M TR P XI. Head r., laureate.	IMP XXI COS XVI CENS PPP. Athena, standing l., holding spear. Cohen, ² I. p. 494, 271.
35	" "	Same legend. Athena Promachos to r. on ship. Cohen, ² I. p. 494, 274.

Cos XVII: 95 A.D.

36	IMP CAES DOMIT AVG GERM P M TR P XIII. Head r., laureate.	IMP XXII COS XVII CENS P P P. Athena Promachos to r. on ship. Cohen, ² I. p. 496, 289.
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NERVA.

Cos III: 97 A.D.

37	IMP NERVA CAES AVG P M TR P COS III P P. Head r., laureate.	CONCORDIA EXERCITVVM. Two hands clasped. Cohen, ² II. p. 3, 20.
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NERVA—*continued.*Cos. III: 97 A.D.—*continued.*

No.	Obverse.	Reverse.
38	IMP NERVA CAES AVG P M TR P II COS III P P. Head r., laureate.	FORTVNA AVGVST. Fortuna, standing l., holding rudder and cornucopiae. Cohen, ² II. p. 7, 71.
39	" "	LIBERTAS PVBLICA. Libertas, standing l., holding cap and sceptre. Cohen, ² II. p. 10, 117.

TRAJANUS.

Cos II: 98-99 A.D.

40	IMP CAES NERVA TRAIAN AVG GERM. Head r., laureate.	P M TR P COS II PP. Vesta, veiled, seated l., holding patera and torch. Cohen, ² II. p. 40, 203.
41	" "	Same legend. Fortuna or Abundantia, seated l. on stool, the legs of which end in cornucopiae, holding a sceptre. Cohen, ² II. p. 40, 206.

Cos III: 100 A.D.

42	IMP CAES NERVA TRAIAN AVG GERM. Head r., laureate.	PM TR P COS III P P. Vesta, veiled, seated l., holding patera and torch. Cohen, ² II. p. 41, 214.
43	" "	Same legend. Fortuna or Abundantia, seated l. on stool, the legs of which end in cornucopiae, holding a sceptre. Cohen, ² II. p. 41, 219.
44	" "	Same legend. Victory, seated l., holding wreath and palm. Cohen, ² II. p. 42, 225.

Cos IV: 101-103 A.D.

45	IMP CAES NERVA TRAIAN AVG GERM. Head r., laureate.	P M TR P COS III P P. Hercules, standing facing on an altar, holding club and lion's skin. Cohen, ² II. p. 43, 234.
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TRAJANUS—*continued.*

Cos V: 104-111 A.D.

No.	Obverse.	Reverse.
46	IMP TRAIANO AVG GER DAC P M TR P. Bust r., laureate.	COS V P P S P Q R OPTIMO PRINC. Rome, seated l., holding Victory and spear. Cohen, ² II. p. 26, 69.
47, 48, 49	" "	Same legend. Victory, half-draped, standing l., holding wreath and palm. Cohen, ² II. p. 26, 74.
50	" "	Same legend. Victory, fully draped, standing l., holding wreath and palm. Cohen, ² II. p. 26, 76 (where the words "sur des boucliers" should be omitted).
51	" "	Same legend. Victory, walking to l. upon shields, holding wreath and palm. Cohen, ² II. p. 26, 77 (where the words "sur des boucliers" should be inserted after "à gauche").
52	" "	Same legend. Pax, standing l., holding an olive-branch and leaning on a column. Cohen, ² II. p. 27, 83.
53	" "	Same legend. Aequitas, standing l., holding balance and cornu- copiae. Cohen, ² II. p. 27, 85 (where "OR" is a misprint for AR as the value, 2 francs, clearly shows).
54	" "	Same legend. Fortuna, standing l., holding rudder and cornu- copiae. Cohen, ² II. p. 27, 87.

TRAJANUS—*continued.*COS V: 104-111 A.D.—*continued.*

No.	Obverse.	Reverse.
55	IMP TRAIANO AVG GER DAC P M TR P. Bust r., laureate.	Same legend. Trophy, with one round and two hexagonal shields on its arms, at foot one round and one hexagonal shield, a scythe and two spears. Cohen, ² II. p. 28, 100.
56	" "	Same legend. DAC CAP in exergue. Dacia weeping, seated l., on one round and one hexagonal shield; behind her a hexagonal shield, in front two scythes. Cohen, ² II. p. 31, 120.
57	IMP TRAIANO AVG GER DAC P M TR P COS V P P. Bust r., laureate wearing aegis.	S P Q R OPTIMO PRINCIPI. Pax, seated l., holding olive-branch and sceptre; at her feet a Dacian kneeling as a suppliant. Cohen, ² II. p. 61, 417.
58	Same legend. Bust r., laureate.	Same legend. Spes, walking l., carrying flower and holding up her skirt. Cohen, ² II. p. 64, 457 (misprinted as 455).
59	" "	Same legend. Fortuna, seated l., holding rudder and cornucopiae. Cohen, ² II. p. 66, 481.
60	Same legend. Head r., laureate.	Same legend. Trajan, standing facing in military dress, holding spear and parazonium, crowned by Victory, who stands holding a palm. Cohen, ² II. p. 70, 514.

COS VI: 112-116 A.D.

61	IMP TRAIANO AVG GER DAC P M TR P COS VI P P. Bust r., laureate.	Same legend. ALIM ITAL in exergue. Abundantia, standing l., holding ears of corn and a cornucopiae; at her feet a child. Cohen, ² II. p. 18, 9.
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TRAJANUS—*continued.*Cos VI: 112-116 A.D.—*continued.*

No.	Obverse.	Reverse.
62, 63	IMP TRAIANO AVG GER DAC P M TR P COS VI P P. Bust r., laureate.	Same legend. ARAB ADQ in exergue. Arabia, standing facing, her head turned to l., holding a branch and an uncertain object. ¹ At her feet a camel. Cohen, ² II. p. 20, 26 (Cohen has mistaken the camel for an ostrich, which is not an inhabitant of Arabia).
64	IMP TRAIANO OPTIMO AVG GER DAC P M TR P. Bust r., laureate and draped.	COS VI P P S P Q R. Mars, walking r., carrying spear and trophy. Cohen, ² II. p. 29, 103.
65	IMP CAES NER TRAIAN OPTIM AVG GERM DAC. Bust r., laureate and draped.	PARTHICO P M TR P COS VI P P S P Q R. FORT RED in exergue. Fortuna, seated l., holding rudder and cornucopiae. Cohen, ² II. p. 34, 150.
66	IMP CAES NER TRAIANO OPTIMO AVG GER DAC. Bust r., laureate and draped.	P M TR P COS VI P P S P Q R. FORT RED in exergue. Same type. Cohen, ² II. p. 34, 154.
67, 68	" "	P M TR P COS VI P P SPQR. Genius, standing facing, head turned to l., holding patera and ears of corn. Cohen, ² II. p. 46, 276.
69	IMP CAES NER TRAIAN OPTIMO AVG GER DAC PARTHICO. Bust r., laureate and draped.	Same legend and type. Cohen, ² II. p. 46, 277 (TRA- IAN for TRAIANO).

¹ Cohen describes it as "un roseau?"—a most unlikely solution, as reeds do not grow in Arabia. The reed requires a damp marshy soil, whereas in Arabia Pliny mentions the heat and drought as being too great even for the growth of trees, low-growing plants and shrubs only being found there. Probably this represents one of the famous spices from which Aristotle gives Arabia the epithet *εὐώδης*, perhaps cinnamon twigs tied in a bundle for transportation.

TRAJANUS—*continued.*Cos VI: 112-116 A.D.—*continued.*

No.	Obverse.	Reverse.
70	IMP CAES NER TRAIANO OPTIMO AVG GER DAC. Bust r., laureate and draped.	Same legend. Virtus, standing r., his l. foot on a helmet, holding spear and parazonium. Cohen, ² II. p. 46, 273.
71	IMP TRAIANO AVG GER DAC P M TR P COS VI P P. Bust r., laureate and draped.	S P Q R OPTIMO PRINCIPI. On a spiral column a statue of Trajan in military dress; on the base, which bears indistinct reliefs, stand two eagles. Cohen, ² II. p. 76, 558.

HADRIANUS.

Cos I: 117 A.D.

72	IMP CAESAR TRAIAN HADRIAN OPT AVG GER DAC. Bust r., laureate and draped, wearing cuirass.	PARTHIC DIVI TRAIAN AVG F P M TR P COS P P. CONCORD in exergue. Concordia, seated l., holding patera; under her chair a cornucopiae, behind her a statuette of Spes. Cohen, ² II. p. 125, 250.
73	IMP CAES TRAIAN HADRIANO AVG DIVI TRA. Bust r., laureate and draped.	PARTH F DIVI NER NEP P M TR P COS. FORT RED in exergue. Fortuna, seated l., holding rudder and cornucopiae. Not in Cohen.

Cos II: 118 A.D.

74	IMP CAESAR TRAIAN HADRIANVS AVG. Bust r., laureate and draped, wearing cuirass.	P M TR P COS II. Across field, FEL AVG. Felicitas, standing l., holding caduceus and cornucopiae. Cohen, ² II. p. 158, 595.
75, 76	Same legend and bust.	P M TR P COS II. PAX in exergue. Pax, standing l., holding olive-branch and cornucopiae. Cohen, ² II. p. 190, 1015.

HADRIANUS—continued.

Cos III: 119-128 A.D.

No.	Obverse.	Reverse.
77	HADRIANVS AVG COS III P P. Head r., bare.	AEGYPTOS. Egypt, recumbent to l., holding sistrum and leaning l. arm on a basket; before her an ibis. Cohen, ² II. p. 114, 99.
78	Same legend. Bust r., draped.	Same legend and type. Cohen, ² II. p. 114, 102.
79	Same legend. Head r., laureate.	AFRICA. Africa, with elephant's trunk on head, recumbent to l., holding scorpion; before her a basket full of fruits. Cohen, ² II. p. 116, 188.
80	Same legend. Head r., bare.	ASIA. Asia, standing l., her foot on a ship's prow, holding acros- tolium and oar. Cohen, ² II. p. 120, 188.
81	IMP CAESAR TRAIAN HADRIANVS AVG. Bust r., laureate and draped.	P M TR P COS III. CLEM in exergue. Clementia, standing l., by an altar which is garlanded and lighted, hold- ing patera and sceptre. Cohen, ² II. p. 122, 212.
82	Same legend. Bust r., laureate, but not draped.	Same legend and type. Not in Cohen.
83	HADRIANVS AVGVS- TVS. Bust r., draped.	CLEMENTIA AVG COS III P P. Clementia, standing l., holding patera and sceptre. Cf. Cohen, ² II. p. 122, 218 (but bust draped).
84	Same legend. Head r., laureate.	COS III. Joy, standing r., holding long palm and arranging his head- dress. Cohen, ² II. p. 188, 378.
85	" "	Same legend. Pudicitia, standing l., veiled. Cohen, ² II. p. 139, 392.

HADRIANUS—*continued.*Cos III: 119-128 A.D.—*continued.*

No.	Obverse.	Reverse.
86, 87	Same legend. Head r., laureate.	Same legend. Pudicitia, seated l., veiled. In exergue a globe. Cohen, ² II. p. 139, 394.
88	" "	Same legend. Rome, seated r., on a cuirass and shield, holding spear and parazonium. In exergue a globe. Cohen, ² II. p. 135, 337.
89	Same legend and head.	Same legend. Virtus, standing r., his l. foot on a helmet, holding spear and parazonium. Cf. Cohen, ² II. p. 136, 353 (head for bust).
90	" "	Same legend. Libertas, standing l., holding cap and sceptre. Cohen, ² II. p. 138, 374.
91	HADRIANVS AVGVSTVS P P. Head r., laureate.	Same legend. Abundantia, seated l., holding poppy and cornucopiae; at her feet a modius. Cohen, ² II. p. 138, 380.
92	HADRIANVS AVGVSTVS. Head r., laureate.	Same legend. Female figure, standing l., holding lituus and cornucopiae, her r. foot on a cuirass. Cohen, ² II. p. 140, 399 (what Cohen calls "une fleur?" is evidently a lituus).
93	HADRIANVS AVGVSTVS COS III P P. Head r., laureate.	FIDES PVBLICA. Fides, standing r., holding two ears of corn and a basket of fruits. Cohen, ² II. p. 168, 717.
94	HADRIANVS AVGVSTVS. Head l., bare.	COS III P P. FORT RED in exergue. Fortuna, seated l., holding rudder, which rests on a globe, and cornucopiae. Cf. Cohen, ² II. p. 168, 734 (but different head).

HADRIANUS—*continued.*Cos III: 119-128 A.D.—*continued.*

No.	Obverse.	Reverse.
95	HADRIANVS AVG COS III P P. Head r., bare.	FORT REDVCI. Hadrian, standing r., giving his hand to Fortuna, who stands holding a cornucopias and leaning on a rudder below which is a globe. Cohen, ² II. p. 171, 761.
96	Same legend. Head r., laureate.	FORTVNA AVG. Fortuna, standing l., holding rudder and cornucopias. Cohen, ² II. p. 171, 765.
97, 98	IMP CAESAR TRAIAN HADRIANVS AVG. Bust r., laureate and draped.	P. M. TR. P. COS III. LIB PVB in exergue. Libertas, seated l., holding laurel-branch and sceptre. Cohen, ² II. p. 181, 908.
99	HADRIANVS AVG COS III P P. Head r., bare.	MONETA AVG. Moneta, standing l., holding balance and cornucopias. Cohen, ² II. p. 186, 963.
100, 101	" "	PIETAS AVG. Pietas, standing l., beside an altar, raising both her hands. Cohen, ² II. p. 191, 1028.
102	IMP CAESAR TRAIAN HADRIANVS AVG. Bust r., laureate.	P M TR P COS III. Mars, walking r., carrying spear and trophy. Cohen, ² II. p. 195, 1078.
103	" "	Same legend. Rome, standing l., holding victory and spear. Cohen, ² II. p. 198, 1108.
104	" "	Same legend. Aeternitas, standing l., holding the heads of the Sun and Moon. Cohen, ² II. p. 199, 1114.
105	" "	Same legend. Pax, standing l., holding olive-branch and sceptre. Cohen, ² II. p. 201, 1140.

HADRIANUS—*continued.*Cos III: 119-128 A.D.—*continued.*

No.	Obverse.	Reverse.
106	Same legend and bust.	Same legend. Felicitas or Pax, standing l., holding caduceus and cornucopiae. Cohen, ² II. p. 201, 1143.
107, 108	" "	Same legend. Fortuna, standing l., resting on a column, holding rudder and cornucopiae. Cohen, ² II. p. 202, 1155.
109	" "	Same legend. Aequitas, standing l., holding balance and cornucopiae. Cohen, ² II. p. 199, 1120.
110	HADRIANVS AVG COS III P P. Head r., laureate.	ROMA FELIX. Rome, seated l. on a curule chair, holding olive-branch and sceptre. Cohen, ² II. p. 215, 1304.
111	" "	ROMVLO CONDITORI. Romulus, bare-headed, walking r., carrying spear and trophy. Cohen, ² II. p. 215, 1316.
112	HADRIANVS AVGVSTVS. Bust r., bare.	SECVR PVB COS III P P. Securitas, seated l., holding sceptre, and leaning head on l. hand. Cf. Cohen, ² II. p. 222, 1400 (bust not draped).
113, 114, 115	HADRIANVS AVG COS III P P. Head r., laureate.	VICTORIA AVG. Victory, standing r., uncovering her breast and holding laurel-branch. Cohen, ² II. p. 227, 1455.

SABINA: 128-136 A.D.

116	SABINA AVGVSTA HADRIANI AVG P P. Bust, diademed ^a r.	CONCORDIA AVG. Concordia, seated l., holding patera, and leaning l. arm on statuette of Spes; under her seat a cornucopiae. Cohen, ² II. p. 248, 12.
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SABINA: 128-136 A.D.—*continued.*

No.	Obverse.	Reverse.
117	SABINA AVGVSTA. Bust r., diademed.	VENERI GENETRICI. Venus, standing l., holding an apple, and with her l. hand raising her drapery from her shoulder. Cohen, ² II. p. 253, 73.
ANTONINVS PIVS.		
Cos I: 138 A.D.		
118	IMP T AEL CAES ANTONINVS. Head r., bare.	TRIB POT COS. Pietas, standing l. near an altar, raising r. hand and holding a fold of her drapery over her l. arm. Cohen, ² II. p. 372, 1062.
119	IMP T AEL CAES HADRI ANTONI- NVS. Head r., bare.	AVG PIVS P M TR P COS DES II. Fides, standing r., holding two ears of corn and a basket of fruits. Cohen, ² II. p. 278, 79.
120	" "	Same legend. Pallas, standing l., holding Victory and resting her l. hand on a shield; a spear rests against her l. arm. Cohen, ² II. p. 277, 67.
Cos III: 140-144 A.D.		
121	ANTONINVS AVG PIVS P P TR P COS III. Head r., bare.	CLEMENTIA AVG. Clementia, standing l., holding patera and sceptre. Cohen, ² II. p. 283, 123.
122	Same legend. Head r., laureate.	Same legend and type. Cohen, ² II. p. 283, 124.
123	" "	CONCORDIA AVG. Concordia, standing r., holding sceptre and cornucopiae. Cohen, ² II. p. 284, 135.
124, 125	" "	GENIO SENATVS. Genius, standing l., holding branch and sceptre. Cohen, ² II. p. 309, 399 (where SANATVS is misprinted for SENATVS).

ANTONINUS PIUS—*continued.*Cos III: 140-144 A.D.—*continued.*

No.	Obverse.	Reverse.
126	Same legend. Head r., bare.	GENIVS POP ROMANI. Genius, standing facing, head turned to r., holding sceptre and cornucopiae. Cohen, ² II. p. 310, 405.
127	Same legend. Head r., laureate.	IMPERATOR II. Victory, standing l., holding wreath and palm. Cohen, ² II. p. 312, 437.
128	Same legend. Head r., bare.	ITALIA. Italy, turreted, seated l. on a globe, holding cornucopiae and sceptre. Cf. Cohen, ² II. p. 314, 463 (but head bare).

Cos IV: 145-161.

129	ANTONINVS AVG PIVS P P. Head r., laureate.	COS IIII. Vesta, standing l., holding patera and sceptre. Cohen, ² II. pp. 292, 293.
130	" "	Same legend. Two hands clasped, holding caduceus and two corn ears. Cohen, ² II. p. 304, 344.
131	" "	TR POT COS IIII. LIB IIII in exergue. Liberalitas, standing l., holding a tessera and a cornucopiae. Cohen, ² II. p. 318, 490.
132	" "	Same legend and type. LIB IIII across field. Cohen, ² II. p. 318, 491.

Cos IV, Tr. P. XI: 148 A.D.

133	ANTONINVS AVG PIVS P P TR P XI. Head r., laureate.	COS IIII. Salus, standing l., feeding a snake which is entwined round an altar. Cohen, ² II. p. 298, 280.
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ANTONINUS PIUS—*continued.*

Cos IV, Tr. P. XII: 149 A.D.

No.	Obverse.	Reverse.
134	Same, with TR P XII.	Same legend. Abundantia, standing l., holding two ears of corn and an anchor; to l. a modius filled with ears of corn. Cohen, ² II. p. 299, 284.

Cos IV, Tr. P. XIV: 151 A.D.

135	Same, with TR P XIII.	Same legend. Genius, standing l., holding patera and ears of corn. Cohen, ² II. p. 295, 220.
136	IMP CAES T AEL HADR ANTO- NINVS AVG PIVS P P. Head r., laureate.	TR POT XIII COS III. PIETAS in exergue. Pietas, standing r., holding goat and basket of fruit; at her feet an altar. Cohen, ² II. p. 330, 616.

Cos IV, Tr. P. XVI: 153 A.D.

137	ANTONINVS AVG PIVS P P TR P XVI. Head r., laureate.	COS III. Vesta, standing l., holding sim- pulum and palladium. Cohen, ² II. p. 292, 197.
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Cos IV, Tr. P. XIX: 156 A.D.

138	Same, with TR P XIX.	Same legend. Artemis (?), stand- ing l., holding in her r. hand a small animal (?) and in her l. a stag or goat (?) by its hind legs. Not in Cohen.
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Cos IV, Tr. P. XX: 157 A.D.

139	ANTONINVS AVG PIVS PP IMP II. Head r., laureate.	TR POT XX COS III. Salus, seated l., feeding a serpent which is entwined round an altar. Cohen, ² II. p. 368, 1023.
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Cos IV, Tr. P. XXI: 158 A.D.

140	Same legend and head.	TR POT XXI COS III. Abundantia, standing l., with l. foot on a ship's prow, hold- ing rudder and modius. Cohen, ² II. p. 370, 1039.
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ANTONINUS PIUS—*continued.*

COS IV, TR. P. XXII: 159 A.D.

No.	Obverse.	Reverse.
141	ANTONINVS AVG PIVS PP TR P XXII. Head r., laureate.	FORTVNA OBSEQVENS. COS IIII in exergue. Fortuna, standing l., holding rudder and cornucopiae. Cohen, ² II. p. 308, 387.
142	" "	TEMPLVM DIV AVG REST. COS IIII in exergue. Octastyle temple; in the centre the statues of Augustus and Livia seated. In the pediment (which is surmounted by a quadriga and has statues as side acroteria) are statues of the three Capitoline gods be- tween two recumbent figures; in front of each end column is a statue on a base. Cohen, ² II. p. 349, 804.

Cos IV, TR. P. XXIII: 160 A.D.

143	Same, with TR P XXIII.	PACI AVG COS IIII. Pax, standing l., holding olive- branch and sceptre. Cohen, ² II. p. 327, 573.
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FAUSTINA (wife of Antoninus Pius): 138-141 A.D.

144	FAVSTINA AVGVSTA. Bust r.	IVNONI REGINAE. Juno, veiled, standing l., holding patera and sceptre; at her feet a peacock. Cohen, ² II. p. 430, 215.
145, 146	" "	Same legend. Throne on which is a sceptre placed crosswise; below, a peacock to r. with its tail displayed. Cohen, ² II. p. 430, 219.

Struck after the death of Faustina, in 141 A.D.

147	DIVA AVG FAVSTINA. Bust r.	AETERNITAS. Aeternitas, standing r., arrang- ing her veil and holding a sceptre. Cohen, ² II. p. 416, 41.
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FAUSTINA (wife of Antoninus Pius): 138-141 A.D.—*continued.*Struck after the death of Faustina, in 141 A.D.—*continued.*

No.	Obverse.	Reverse.
148	DIVA FAVSTINA. Bust r.	Same legend. Aeternitas, standing l., holding a globe and raising her veil over her head. Cohen, ² II. p. 415, 32.
149	" "	AVGVSTA. Venus (?), standing l., holding an apple and leaning on a shield. Cohen, ² II. p. 419, 73.
150	" "	Same legend. Ceres, standing l., raising her r. hand and holding a torch. Cl. Cohen, ² II. p. 421, 101 (not given in silver).
151	" "	Same legend. Vesta, standing l., holding patera and palladium; at her feet an altar. Cohen, ² II. p. 422, 116.
152 (broken)	" "	Same legend. Female figure, standing r., holding sceptre, her l. hand by her side. Cohen, ² II. p. 423, 128.
153	" "	Same legend. A throne on which is a crown, and a sceptre placed crosswise. Cohen, ² II. p. 423, 131.

MARCUS AURELIUS.

Cos I: 140-144 A.D.

154	AVRELIVS CAESAR AVG PII F COS. Head r., bare, without beard.	IVVENTAS. Juventas, standing l., dropping incense over the flame of an incense-altar and holding a patera. Cohen, ² III. p. 40, 389.
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Cos II: 145-160 A.D.

155	AVRELIVS CAESAR AVG PII F. Head r., bare, with slight beard.	COS II. Spes, walking l., carrying a flower and holding up her skirt. Cohen, ² III. p. 12, 103.
156, 157	" "	Same legend. Pax, standing l., holding olive-branch and cornucopiae. Cohen, ² III. p. 12, 105.

MARCUS AURELIUS—*continued.*

Cos II, Tr. P. VI: 152 A.D.

No.	Obverse.	Reverse.
158	AVRELIVS CAESAR ANTONINI AVG PII FIL. Head r., bare, with slight beard.	TR POT VI COS II. CLEM in exergue. Clementia, standing l., holding patera and a fold of her drapery. Cohen, ² III. p. 6, 19.
159	AVRELIVS CAESAR AVG PII FIL. Head r., bare, with slight beard.	Same legend. Genius of the army, standing l., holding patera and aquila. At his feet an altar. Cohen, ² III. p. 65, 645.

Cos II, Tr. P. VII: 153 A.D.

160	Same legend and head.	TR POT VII COS II. Same type. Cohen, ² III. p. 66, 661.
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Cos II, Tr. P. X: 156 A.D.

161	AVRELIVS CAES ANTON AVG PII F. Head r., bare, with slight beard.	TR POT X COS II. Aequitas, standing l., holding balance and sceptre. Cohen, ² III. p. 69, 702.
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Cos III: 161-180 A.D.

162	M ANTONINVS AVG. Head r., laureate, with beard.	COS III P P. Pallas, standing l., holding olive-branch and shield, a spear resting on her l. arm. Cohen, ² III. p. 16, 143.
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Cos III, Tr. P. XVIII: 164 A.D.

163	ANTONINVS AVG ARMENIACVS. Head r., laureate, with beard.	P M TR P XVIII IMP II COS III. Soldier, standing r., holding spear and leaning on shield. Cohen, ² III. p. 48, 469.
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Cos III, Tr. P. XIX, Imp. III: 165 A.D.

164	M ANTONINVS AVG ARMENIACVS. Head r., laureate, with beard.	P M TR P XIX IMP III COS III. Roma, seated l., on a shield, holding Victory and spear. Cohen, ² III. p. 49, 481.
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MARCUS AURELIUS—*continued.*

Cos III, Tr. P. XX, Imp. IV: 166 A.D.

No.	Obverse.	Reverse.
165	M ANTONINVS AVG ARM PARTH MAX. Head r., laureate, with beard.	TR P XX IMP IIII COS III. Victory, standing facing, head turned to r., holding palm and fastening to a palm-tree a shield bearing inscription VIC PAR. Cohen, ² III. p. 86, 878.

Cos III, Tr. P. XXII, Imp. V: 168 A.D.

166	M ANTONINVS AVG ARM PARTH MAX. Head r., laureate, with beard.	TR P XXII IMP V COS III. Aequitas, seated l., holding balance and cornucopiae. Cohen, ² III. p. 89, 899.
167	” ”	Same legend. Aequitas, standing l., holding balance and cornu- copiae. Cohen, ² III. p. 89, 901.

Cos III, Tr. P. XXIV: 170 A.D.

168	M ANTONINVS AVG TR P XXIIII. Head r., laureate, with beard.	LIBERAL AVG V COS III. Liberalitas, standing l., holding tessera and cornucopiae. Cohen, ² III. p. 43, 413.
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Cos III, Tr. P. XXV: 171 A.D.

169	Same, with TR P XXV.	COS III. Rome, seated l., on a cuirass, holding Victory and spear. Cohen, ² III. p. 14, 133.
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Cos III, Tr. P. XXVII: 173 A.D.

170	Same, with TR P XXVII.	IMP VI COS III. Victory, walking r., holding wreath and trophy. Cohen, ² III. p. 27, 261.
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FAUSTINA (wife of Marcus Aurelius): 147-176 A.D.

No.	Obverse.	Reverse.
171	FAVSTINA AVGVSTA. Bust r.	AVGVSTI PII FIL. Spes, standing l., carrying a flower and holding up her skirt. Cohen, ² III. p. 138, 24.
172	" "	CERES. Ceres, seated l., veiled, on a cista, holding two ears of corn and a long torch. Cohen, ² III. 139, 35.
173	" "	Similar, but Ceres holds small torch. Not in Cohen.
174, 175	FAVSTINA AVG PII AVG FIL. Bust r.	CONCORDIA. Concordia, seated l., holding flower and leaning l. arm on cornucopiae. Cohen, ² III. p. 140, 54.
176	FAVSTINA AVGVSTA. Bust r., diademed.	SAECVLI FELICIT. Throne, on which the twin children Commodus and Antoninus are seated playing. No stars above their heads. Cohen, ² II. p. 152, 191.
177, 178	" "	SALVS. Salus, seated l., feeding a snake which is entwined round an altar. Cohen, ² III. p. 152, 195.
179	Same legend. Bust r., without diadem.	TEMPOR FELIC. Faustina, standing l., holding two children, at either side of her two other children stand holding out their hands to her. Cf. Cohen, ² III. p. 154, 221.

LUCIUS VERUS.

Cos II, TR. P. IV: 164 A.D.

180	L VERVS AVG AR- MENIACVS. Head r., bare.	TR P IIII IMP II COS II. Mars, standing r., holding spear and resting on shield. Cohen, ² III. p. 192, 229.
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COMMODUS.

COS I, TR. P. I: 177 A.D.

No.	Obverse.	Reverse.
181	IMP CAES L AVREL COMMODOVS GERM SARM. Bust r., laureate, with- out beard.	TR POT COS. Victory, walking l., holding wreath and palm. Cohen, ² III. p. 326, 734.

BASE DENARII.

MARCUS ANTONIUS.

LEGIONARY COIN: 32-31 B.C.

No.	Obverse.	Reverse.
1	ANT AVG III VIR · R · P · C. Galley to r.	Illegible.

VESPASIANUS.

2	IMP CAES VESP AVG CEN. Head r., laureate.	SALVS AVG. Salus, seated l., holding patera. Cf. Cohen, ² I. p. 401, 431. Attributed by de Salis to the year 73 A.D.
3	CAESAR VESPASI- ANVS AVG. Head r., laureate.	CERES AVGVST. Ceres, standing l., holding ears of corn with a poppy and a torch. Cf. Cohen, ² I. p. 372, 54. Attributed by de Salis to the years 74-79 A.D.

TRAIANUS.

COS V: 74 A.D.

4 (broken)	IMP TRAIANO AVG GER DAC [P M TR P]. Bust r., laureate.	COS V P P SPQR OPTIMO PR]NC. Aequitas, standing l., holding balance and cornucopiae. Cf. Cohen, ² II. p. 27, 85.
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TRAIANUS—*continued.*

Cos VI: 75 A.D.

No.	Obverse.	Reverse.
5	IMP TRAIANO AVG GER DAC P M TR P COS VI P P. Bust r., laureate.	S P Q R OPTIMO PRINCIPI. ALIM ITAL in exergue. Abundantia, standing l., holding ears of corn and a cornucopie; at her feet a child. Cf. Cohen, ² II. p. 18, 9.

HADRIANUS.

Cos III: 119-128 A.D.

6	HADRIANVS AVG COS III P P. Head r., bare.	FIDES PVBLICA. Fides, standing r., holding two ears of corn and a basket of fruits. Cf. Cohen, ² II. p. 168, 716.
7	" "	GERMANIA. Germany, standing l., holding lance and resting on shield. Cf. Cohen, ² II. p. 173, 802.
8	IMP CAESAR TRAIAN HADRIANVS AVG. Head r., laureate.	P M TR P COS III. Rome, seated l. on a cuirass, holding Victory and spear. Cf. Cohen, ² II. p. 197, 1099.
9	Same legend and type.	Same legend. CLEM in exergue. Clementia, standing l. by an altar which is garlanded and lighted, holding patera and sceptre. Cf. Cohen, ² II. p. 122, 212.

ANTONINUS PIUS.

Cos IV, Tr. P. XVI: 153 A.D.

10	ANTONINVS AVG PIVS P P TR P XVI. Head r., laureate.	COS IIII. Vesta, standing l., holding sim-pulum and palladium. Cf. Cohen, ² II. p. 292, 197.
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Cos IV, Tr. P. XVII: 154 A.D.

11	Same, with TR P XVII.	Same legend. Artemis (?), holding two ears of corn and a stag or goat (?) by its hind legs. Not in Cohen.
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ANTONINUS PIUS—*continued*.

Cos IV, Tr. P. XX: 157 A.D.

No.	Obverse.	Reverse.
12	ANTONINVS AVG PIVS P P IMP II. Head r., laureate.	TR POT XX COS IIII. Abundantia, standing r., her l. foot on a ship's prow, holding rudder and a modius on her l. knee. Cf. Cohen, ² II. p. 368, 1016.

Struck after the death of Antoninus, in 161 A.D.

13	DIVVS ANTONINVS. Head r., bare.	DIVO PIO. A column standing on a base surmounted by statue of Antoninus holding globe and sceptre. Cf. Cohen, ² II. p. 305, 353.
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MARCUS AURELIUS.

Cos II, Tr. P. VIII: 154 A.D.

14	AVRELIVS CAESAR AVG PII FIL. Head r., bare.	TR POT VIII COS II. Pallas, standing l., holding owl and shield, a spear resting on her left arm. Cf. Cohen, ² III. p. 66, 668.
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Cos III, Tr. P. XVII: 163 A.D.

15	IMP M ANTONINVS AVG. Head r., laureate.	PROV DEOR TR P XVII COS III. Providentia, standing l., holding globe and cornucopiae. Cf. Cohen, ² III. p. 53, 525.
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Cos III, Tr. P. XXIII: 169 A.D.

16	M ANTONINVS AVG ARM PARTH MAX. Head r., laureate.	FORT RED TR P XXIII IMP V. COS III in exergue. Fortuna, seated l., holding rudder and cornucopiae. Cf. Cohen, ² III. p. 22, 309.
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MARCUS AURELIUS—*continued.*

Cos III, Tr. P. XXVI: 172 A.D.

No.	Obverse.	Reverse.
17	M ANTONINVS AVG TR P XXVI. Head r., laureate.	IMP VI COS III. Victory, walking l., holding wreath and palm. Cf. Cohen, ² III. p. 27, 265.
FAUSTINA (wife of Marcus Aurelius). Struck after her death, in 176 A.D.		
18	DIVA FAVSTINA PIA. Bust r.	CONSECRATIO. Throne with sceptre across it, below it a peacock to r. Cf. Cohen, ² III. p. 142, 73.

GEORGE C. BROOKE.

III.

ASPECTS OF DEATH, AND THEIR EFFECTS ON THE LIVING, AS ILLUSTRATED BY MINOR WORKS OF ART, ESPECIALLY MEDALS, ENGRAVED GEMS, JEWELS, &c.

(Continued from Vol. IV. p. 417.)

PART III.

COINS, MEDALS, AND MEDAL-LIKE TOKENS RELATING TO
DEATH AND THE VARIOUS ASPECTS OF AND ATTITUDES
TOWARDS DEATH.

MOST of these pieces fall under one of the following classes:—

(A) Personal or other medals, bearing *memento mori* devices, as, for instance, those of Erasmus of Rotterdam.

(B) Ordinary commemorative medals, mostly of well-known individuals, issued on their death (sometimes on their assassination or execution). Some of these, like certain sepulchral monuments⁶⁴ of Church dignitaries and other persons of the fifteenth, sixteenth, and seventeenth centuries, and like certain mourning finger-rings (described later on), have been designed to serve as a

⁶⁴ The sepulchral monument of Archbishop Chichele (died 1443) will be referred to later on in connexion with some of these medals.

memento mori to the living as well as a memorial of the dead.

(C) Memorial medalets made, like some memorial and mourning finger-rings, "in memoriam," to be distributed at funerals. Some of these, like some of those of the preceding class, have been designed so to serve the double purpose of a memorial of the dead and a *memento mori* to the living.

(D) Various pieces bearing *memento mori* devices, used as tickets, passes, or badges, in connexion with funeral celebrations, medical guilds (Delft and Middelburg), medical gardens (Amsterdam), &c. According to Bergsøe (*Danske Medailler og Jetons*, Copenhagen, 1893, p. 141), certain death's head medalets were at one time used by medical students of the Copenhagen University as badges on their caps. In Holbein's picture, known as "The Ambassadors" (1535), in the National Gallery, London, one of the two young men, Jean de Dinteville, Lord of Polisy, is represented wearing a little silver death's head mounted as a jewel in his black bonnet. Doubtless this was not a badge in the strict sense of the term, but merely an outward sign of the wearer's mental attitude, indicated likewise by the ("hidden") skull at his feet. Needless to say, the death's heads worn as cap-badges by some regiments in the German and English armies have a very different significance.

(E) Medals bearing *memento mori* devices designed to have a "moral" significance, and to be used as gifts or rewards on special occasions, like the so-called "Moralische Pfenninge" of the town of Basel. These may be compared to *memento mori* finger-rings and jewels used for devotional purposes, &c.

In regard to the persons represented on the medals,

the selection I have made cannot be regarded as a "collection of medals of famous men and women," for almost unknown individuals are commemorated side by side with those whose names are still household words amongst the educated classes of the whole world. The same may be said of almost every collection of portraits,⁶⁵ and in the case of some medallions, just as in the case of many beautifully painted or sculptured portraits, the very name of the person represented has been irretrievably lost.

In the present paper I have not attempted to describe *every* medal, coin, medallion, or badge bearing a device or inscription relating to death, but those that I have selected include characteristic examples of various periods. The order followed is mainly chronological, and the large Roman numerals in brackets, as I have already stated, refer to the aspects of, or attitudes towards, death which I think the devices or inscriptions on the medals illustrate.

(X.) Greek coins illustrating a medical and hygienic attitude towards preventible death in the fifth century B.C.

The following silver coins of Selinus in Sicily date from about 466-415 B.C., and commemorate the freeing of Selinus from a pestilence of some kind (malaria?)⁶⁶ by the drainage of the neighbouring marsh-lands.

⁶⁵ In regard, for instance, to collections of medals of "famous" physicians and naturalists, Billroth (1829-1894), the great surgeon, once remarked to Dr. J. Brettauer of Trieste (who died in 1905), that the medals in such collections are chiefly, not of distinguished and well-known, but of forgotten, obscure, or absolutely unknown physicians and naturalists.

⁶⁶ In regard to the question of malaria, it seems to have been at about the same period (in the fifth century B.C.) that Greece proper first began

Obv.—Apollo and Artemis standing side by side in a slowly moving quadriga, the former discharging arrows from his bow.



FIG. 8.

Rev.—The river-god Selinus, naked, with short horns, holding patera and lustral branch, sacrificing at an altar of Asklepios (Aesculapius), in front of which is a cock. Behind him on a pedestal is the figure of a bull, and in the field above is a selinon leaf. Inscription: ΣΕΑΙΝΟΝΤΙΟΝ. (Fig. 8.)

Silver tetradrachm. *Catalogue of the Greek Coins in the British Museum—Sicily*, London, 1878, p. 140.

B. V. Head (*Historia Numorum*, Oxford, 1887, p. 148) says of this piece: "Apollo is here regarded as the healing god (*ἀλεξίκακος*) who, with his radiant arrows, slays the pestilence as he slew the Python. Artemis stands behind him in her capacity of *εὐλειθία* or *σωδία*, for the plague had fallen heavily on the women too: *ὥστε καὶ τὰς γυναῖκας δυστοκίην* (Diogenes Laertius, lib. viii. 2, *Life of Empedocles*, 70). On the reverse the river-god himself makes formal libation to the god of health, in gratitude for the cleansing of his waters, whilst the image of the bull symbolizes the sacrifice which was offered on the occasion."

to suffer severely from malaria, a disease which appears ultimately to have taken an important place among the causes of Greek national decadence. *Vide* W. H. S. Jones, *Malaria and Greek History*, Manchester, 1909.

Obv.—Heracles contending with a wild bull, which he seizes by the horn, and is about to slay with his club. Inscription: ΣΕΑΙΝΟΝΤΙΟΝ.



FIG. 9.

Rev.—The river-god Hypsas sacrificing before an altar, around which a serpent twines. He holds a branch and a patera. Behind him a marsh-bird (stork) is seen departing. In the field, a selinon leaf. Inscription: ΗΥΨΑΣ. (Fig. 9.)

Silver didrachm. *Catalogue of the Greek Coins in the British Museum—Sicily*, London, 1878, p. 141.

Head (*loc. cit.*) says of this piece: "Here, instead of Apollo, it is the sun-god Herakles, who is shown struggling with the destructive powers of moisture symbolized by the bull, while on the reverse the river Hypsas takes the place of the river Selinus. The marsh-bird is seen retreating, for she can no longer find a congenial home on the banks of the Hypsas now that Empedocles has drained the lands." It seems that the philosopher Empedocles, who at that time was at the height of his fame, put a stop to the plague by turning two neighbouring streams into one, καὶ καταμίξαντα γλυκᾶναι τὰ ρέματα (*Diogenes Laertius, loc. cit.*). The Seluntines conferred divine honours upon Empedocles, and their above-described coins still exist as a wonderful monumental record of the events in question.

(II.) Greek coins of Eleusis in Attica, commemorating the Eleusinian Mysteries.

The Eleusinian Mysteries were supposed to have offered a comforting view in regard to death and a future existence. They are commemorated on certain bronze coins of Eleusis, supposed to date from the fourth century B.C., which represent Triptolemos in a winged



FIG. 10.

car drawn by serpents (dragons) on the obverse; and a pig on a pine-torch, or encircled with a wreath of corn, on the reverse, with the inscription ΕΛΕΥΣΙ (Fig. 10).

Another bronze coin of Eleusis, also referring to the Eleusinian Mysteries, has the head of Demeter or Persephone on the obverse; and a "plemochoë" on a pedestal on the reverse, with the inscription ΕΛΕΥΣ. *Catalogue of Greek Coins in the British Museum—Attica*, London, 1888, pp. 112-114.

In regard to antique gems engraved with devices referring to the Eleusinian Mysteries, especially after the introduction of these mysteries into Italy and Rome, see A. Furtwängler, *Die Antiken Gemmen*, 1900, vol. 3, pp. 208, 253, 339; see also C. W. King, *Handbook of Engraved Gems*, second edition, 1885, Pl. xlvi. No. 3.

(V.) The murder of Julius Caesar, on the Ides (15th day) of March, 44 B.C.

There is a Roman denarius commemorating the

murder of Caesar, struck (according to the evidence of the historian Dion Cassius⁶⁷) by actual order of one of his murderers, M. Junius Brutus.



FIG. 11.

Obv.—Bare head of Brutus to right. Inscription: BRVT. IMP. L. PLAET. CEST. (Brutus imperator; Lucius Plaetorius Cestianus).

Rev.—Cap or pileus (as the emblem of liberty) between two daggers. Below, inscription: EID. MAR. (Eidibus Martis). (Fig. 11.)

E. Babelon, *Monnaies de la République Romaine*, Paris, 1886, vol. ii. p. 119, No. 52. Of this rare silver denarius antique plated copies likewise occur. The piece was doubtless struck in the East some time between B.C. 44 (when Caesar was assassinated) and the battle of Philippi (B.C. 42). Of the moneyer L. Plaetorius Cestianus no mention is made in history.

Several coins struck under Brutus and Cassius after the murder of Caesar, have the head of Liberty on the obverse, with the inscription, LIBERTAS or LEIBERTAS.

During the interregnum which followed the death of Nero (A.D. 68), denarii were struck with the head of Liberty on the obverse and with the old type of the pileus between two daggers on the reverse, the obverse

⁶⁷ According to Dion Cassius (*Historia Romana*, lib. xlvii. sect. 25), the two daggers on the reverse signify the joint shares of Brutus and Cassius in the murder. See also Eckhel, *Doctrina Numorum Veterum*, vol. vi. (1796), p. 24.

and reverse inscriptions reading: LIBERTAS P. R. RESTITVTA (Libertas populi Romani restituta). (Fig. 12.) *Vide* H. Cohen's *Médailles Impériales*, first edition, 1859, vol. i. p. 249, Nos. 267 and 268.



FIG. 12.

The type of the "cap of liberty" between two daggers occurs again on the reverse of a medal (described later on) commemorating the murder of Alexander de' Medici, the first Duke of Florence, in 1537, by his kinsman, Lorenzo de' Medici, called "Lorenzino."

(XI.) Martyrdom of John Huss, the Bohemian Reformer, 1415.

The Reformer's death at the stake is represented on various sixteenth-century memorial medals by the medallists, Michael Hohenauer and Ludwig Neufarer. Hohenauer's monogram was mistaken by Adolf Erman, before Fiala's work on the subject, for that of Hieronymus Magdeburger. *Vide* L. Forrer's *Biographical Dictionary of Medallists*; Eduard Fiala's note on Michael Hohenauer in the *Numismatische Zeitschrift*, Vienna, 1890, vol. 22, p. 258; and R. Weil, "Die Medaille auf Johannes Hus," *Zeitschrift für Numismatik*, Berlin, 1887, vol. 14, p. 125.

Here it may be mentioned, by the way, that a few Byzantine and other relatively early Christian medalets, &c., exist, commemorating Christian martyrs. Amongst the martyrs most frequently portrayed are St. Lawrence,

St. Agnes, and St. Menas of Alexandria (the last especially on little pilgrims' terra-cotta flasks from Egypt). On an early Christian leaden medalet with loop for suspension, figured by F. X. Kraus (*Geschichte der Christlichen Kunst*, Freiburg im Breisgau, 1896, vol. i. p. 126), the soul of the martyred St. Lawrence is represented as a draped (female?) figure, in the attitude of an "orans," rising out of the martyr's roasting body.

(I. and XVII.) *Memento mori* medals by Giovanni Boldu, of Venice, 1458-1466.



FIG. 13 (reduced).

Obv.—Bust of Boldu, with Greek inscription.

Rev.—A young man, nude, sitting on a rock, to right, hiding his face with his hands; on the right a winged child is seated, resting his right arm on a skull and holding a torch in his left. Legend: OPVS. IOANIS. BOLDV. PICTORIS. VENETI. XOGRAFI. MCCCCLVIII. (Fig. 13.)

Diameter, 3.35 inches; cast in bronze. A. Armand, *Les Médailleurs Italiens*, second edition, 1883, vol. i. p. 36, No. 1. A. Heiss, *Les Médailleurs de la Renaissance*, Paris, 1887, vol. i. (Venetian Medals), Pl. ii. No. 2.

According to Cornelius von Fabriczy (*Italian Medals*, translated by Mrs. G. W. Hamilton, London, 1904, p. 47), the winged child on the reverse of this medal is copied from the cupid on the reverse of a medal of the Marquis Lodovico Gonzaga of Mantua (Armand, *op. cit.*, vol. i. p. 27) made by the medallist, Pietro da Fano, about 1452-1457. I have little doubt that Boldu's reverse type, above described (as well as that of another medal by Boldu, to which I shall refer in Part IV.), was intended to represent a rather pessimistic aspect of human life, reminding one of Goethe's lines commencing, "Wer nie sein Brod mit Thränen ass." The child is thrust into life and forced to join in its race, with its trials and troubles, its punishments and rewards; and death, a cure for grief and misery, awaits him at the end.

A third medal, made by Boldu in 1446, represents the bust of the Roman Emperor Caracalla on the obverse,



FIG. 14 (reduced).

with the legend: ANTONINVS. PIVS. AVGVSTVS.
The reverse is similar to that of the first-described

medal, but it has the legend, IO. SON. FINE ("I am the end") and the date MCCCCLXVI. (Fig. 14.)

Diameter, 3.6 inches; cast in bronze. Armand, *op. cit.*, vol. i. p. 37, No. 4. Heiss, *op. cit.*, vol. i. Pl. ii. No. 3.

The reverse type of this medal has apparently suggested the design for one of the marble medallions which I have noticed on the façade of the famous Certosa di Pavia (Carthusian Monastery, near Pavia), but instead of the legend, IO. SON. FINE, the marble medallion has the legend: INNOCENTIA. E. MEMORIA. MORTIS.

(V.) Lorenzo and Giuliano de' Medici and the Pazzi conspiracy (1478).

The Pazzi conspiracy (1478) was formed by members of the Pazzi family, assisted by Francesco Salviati, titular Archbishop of Pisa. The conspirators decided to assassinate the two brothers whilst they were attending Mass in the Duomo of Florence. Giuliano was killed, but Lorenzo escaped and took vengeance on the assassins. The following medal was formerly attributed to Antonio del Pollajuolo, owing to a statement of Vasari, but has recently been assigned by W. Bode to Bertoldo di Giovanni, the Florentine sculptor (died 1492).

Obv.—An octagonal scaffolding representing the pillars of the Duomo. Above, the head of Lorenzo de' Medici to right. Below, priests ministering at an altar. Outside the enclosure, conspirators with swords drawn, and others, Lorenzo escaping. Inscription: LAVRENTIVS MEDICES and SALVS PVBLICA.

Rev.—A similar scene, with the head of Giuliano (to left) above it; Giuliano being slain, below.

Inscription: IVLIANVS MEDICES and LVC-TVS PVBLICVS.

Diameter, 2·5 inches; cast in bronze. C. F. Keary, *Italian Medals exhibited in the British Museum*, 1881, p. 16, No. 34. C. von Fabriczy, *Italian Medals*, English edition by Mrs. Hamilton, London, 1904, pp. 111, 112.

A medal of Giuliano de' Medici, commemorating the same event, has the portrait of Giuliano on the obverse, with the inscription: IVLIANVS. MEDICES. On the reverse is a figure of Nemesis, with the inscription, NEMESIS. Diameter, 3·55 inches. A. Armand, *Les Médailleurs Italiens*, Paris, vol. iii. 1887, p. 27.

(II.) Medal of Domenico Riccio, a Dominican monk (circa 1498).

Obv.—Bust, to left, in monastic dress, the head covered by a hood. Inscription: DOMINICVS RICCIVS.

Rev.—Phoenix (emblem of the resurrection of the body and immortality of the soul) under the sun. Inscription: MORTE. VITA. HYEME. AESTATE. PROPE. LONGE.

Diameter, 2·8 inches. Armand, *Les Médailleurs Italiens*, second edition, Paris, 1883, vol. ii. p. 77; also vol. iii. (1887), p. 185.

According to G. Milanesi (quoted by Armand), this Domenico Riccio was Fra Domenico da Pescia, Savonarola's disciple and companion, who was executed with him in 1498.

(I.) *Memento mori* medal of Galeotto Marzi (second half of fifteenth century).

Obv.—Bust to left. Inscription: GALEOTTVS. MARTIVS. POETA. OLARS. MATHEMATICVS. ET. ORATOR.

Rev.—Two shelves of books, those in one upright, in the other lying flat. Inscription: NASCENTES. MORIMVR. FINIS. Q. AB. ORIGINE. PENDET. [Manilius, *Astronomicon*, iv. 16.] SVPERATA. TELLVS. SIDERA. DONAT.

Diameter, 4·3 inches; Italian fifteenth-century cast medal. Armand, *Les Médailleurs Italiens*, second edition, Paris, 1883, vol. ii. p. 35, No. 25.

Galeotto Marzi was a poet and learned man. He was tutor to the son of Matthias Corvinus, King of Hungary.

There is a similar medal of smaller size (diameter, 3·1 inches) with the same design and legend on the reverse, but with a somewhat younger portrait on the obverse (Armand, *op. cit.*, vol. ii. p. 35, No. 26).

(XI.) Two Italian medals of about 1500, by the medallist termed by Armand, "le Médailleur à la Fortune," have on the reverse the inscription: PRIVS. MORI. QVA(QVAM). TVRPARI ("Rather to die than be defiled"). On the obverse of one of these medals is the portrait of Lodovico Lucio, of Sienna (A. Armand, *Les Médailleurs Italiens*, second edition, Paris, 1883, vol. i. p. 98, No. 2). On the obverse of the other is the portrait of Alessandro Vecchiotti (1472–1532) of Florence (Armand, *op. cit.*, vol. i. p. 99, No. 4).

(I.) Italian portrait medal (said to be of about 1500?).

Obv.—Head of a young man to left. Inscription: PAN-DVLPHVS · IANOINTIS · SVE · XXVIII.

Rev.—Human skull between what seem to be two closed doors with crosses marked on them. Inscription: O(MN)IVM · RERVVM · VICISSITIVDO.

Diameter, 2·7 inches; bronze. A specimen in the Victoria and Albert Museum was obtained from the Piot sale at Paris, in 1864.

The passage in Terence (*Eunuchus*, 2. 2, 45) from which the legend on the reverse is taken is: "Omnium rerum, heus, vicissitudo est." The identity of the man, whose portrait is represented on the obverse, is apparently unknown, and the legend seems to be blundered. I am indebted for information about this medal to Mr. A. Richmond and Mr. W. W. Watts, of the Victoria and Albert Museum.

(XI.) Here may be mentioned some Italian bronze plaques of the early part of the sixteenth century: the bust of Lucretia with a dagger in her hand by *Moderno*, and a larger representation of Lucretia by *Andrea Briosco*, surnamed *Riccio*. *Moderno* likewise represented on a circular plaque (diameter, 1.3 inches) the Roman tradition of the self-sacrifice of *M. Curtius*, who, on horseback and fully armed, was said to have leaped into a chasm which had appeared in the forum.

(I.) Medals of Erasmus in 1519 and 1531, with his *memento mori* device.

Obv.—Bust of Erasmus in profile to left. In the field: ER. ROT. ("Erasmus of Rotterdam"). Legend: IMAGO. AD. VIVĀ. EFFIGIĒ. EXPRESSA. THN · KPEITTO · TA · ΣΥΓΓΡΑΜΜΑΤΑ · ΔΕΙΞΕΙ ("His image modelled to the living features. His writings will represent it better"). Below the bust is the date 1519.

Rev.—A man's head to left on a cubical boundary stone inscribed, TERMINVS. In the field: CONCEDO NVLLI ("I yield to none"). Legend: OPA · ΤΕΛΟΣ · ⁶⁸ ΜΑΚΡΟΥ · ΒΙΟΥ · ΜΟΡΣ VLTIMA

⁶⁸ A Greek version of the common "Respice finem." The Greek word τέλος may, however, like the Latin word "finis" and the English word "end," signify not merely the end or final event of life, but rather

LINEA RERVM ("Keep in view the end of a long life. Death is the final goal of all"). (Fig. 15.)



FIG. 15 (reduced).—From a specimen formerly in the author's collection.

the final object. If this is so, *ὄρα τέλος* (or "Respice finem") becomes practically equivalent to "Live to die." Similarly, when death is described as the "ultima linea rerum," the word "linea" (doubtless used by Horace as the goal-line in a race) may signify either the limit (end) or the object (goal).

Diameter, 4·15 inches ; in bronze or lead ; cast.
Julien Simonis, *L'Art du Médailleur en Belgique*,
Bruxelles, 1900, Pl. ii. No. 3.

There are two very similar but smaller medals, both cast. One (an obverse only) bears the same date 1519 (diameter, 1·75 inches ; Simonis, *op. cit.*, Pl. ii. No. 4) as the large medal, and has the inscription, ERASMVS · ROTERO · around the portrait of Erasmus. The other, the smallest of the three, is dated 1531 (diameter, 1·35 inches ; Simonis, *op. cit.*, Pl. ii. No. 5), and very much resembles the largest medal in type and legends, but the features of Erasmus are slightly more sharply cut.

The large medal has been attributed to Dürer, and it is interesting that Dürer's signed engraving of Erasmus (see Fig. 16), dated 1526, bears a very similar inscription to that on the obverse of the medal. On Dürer's engraving, however, the head of Erasmus is not quite in profile, and his features are much more sharply expressed than on the medal. Moreover, the portrait on the medal is now supposed to be after a lost original by Quentin Metsys. Erasmus himself wrote that Quentin Metsys made a portrait of him, cast in metal. According to Julien Simonis (*op. cit.*, pp. 80-88), one of the above-described medals was the work of the medallist Jean Second, who probably modelled it from a medallion by Quentin Metsys now lost. I do not see why the obverse of the large medal should not be the work of Quentin Metsys himself.

The largest and the smallest of these medals of Erasmus are likewise figured in the *Museum Mazzuchellianum*, Venice, 1761, vol. i. Pl. 45 and Pl. 46. In that work it is explained that the "Terminus" (terminal head) on the reverse is an allusion, not to the great value of the

writings of Erasmus, as some have supposed, but to death, the common goal of all, *i.e.*, as the medal itself



FIG. 16.—Engraving of Erasmus by Dürer. Reduced from an example in the British Museum.

tells us, “*mors ultima linea rerum*” (Horace, *Epist.*, Book i. 16, line 79).

A man's head on a cubical stone inscribed, *TERMINVS*,

with the legend, *CONCEDO NVLLI* or *CEDO NVLLI*, was the favourite device of Erasmus. In the Museum of Basel is an original sketch, which I have seen, showing a rendering of this device, by Holbein (No. 122 of the sketches in the Museum), and there is likewise a fine woodcut by Holbein, designed for a title-page to the works of Erasmus, representing Erasmus standing under a highly decorative Renaissance arch, with his right hand resting on the head of a terminal figure (or "Hermes"), on which is the inscription, *TERMINVS*. On a seal, which Erasmus had specially engraved for himself, the man's head on the boundary stone was represented facing, not (as on the medals) in profile, and the legend was *CEDO NVLLI*, not (as on the medals) *CONCEDO NVLLI*.⁶⁹ With this seal, which I shall illustrate later on, he sealed his last will, dated at Basel, in the house of Jerome Frobenius, 12th February, 1536; and an enlarged copy of the "*TERMINVS*" on this seal was placed by his heirs over the tablet where he was buried in the Cathedral of Basel (cf. R. B. Drummond, *Erasmus, his Life and Character*, London, 1873).

The "Terminus" device of Erasmus might be regarded as a "masked," "disguised," or "softened" *memento mori*, analogous to the elongated death's head which is represented on Holbein's famous picture (to which I have already alluded) painted in 1533, known as "The Ambassadors," in the London National Gallery.

⁶⁹ This seal is figured by J. J. Jortin, together with an antique intaglio representing a terminal bust (or "Hermes"), without any inscription, from which Erasmus apparently derived his idea of adopting a terminal figure as his *memento mori* device. See J. Jortin, *Life of Erasmus*, London, 1808, vol. iii. (specimens of the handwriting of Erasmus, No. 1). In Part IV. I shall again refer to this seal of Erasmus.

(I.) *Memento mori* medal of Pietro Balanzano, of Venice (early sixteenth century).

Obv.—Head in high relief to left. Inscription: PETRO BALANZANO.

Rev.—A human skull. Inscription: NVLA EST REDENCIO (that is equivalent to "There is no escape from death").

Diameter, 2.3 inches. A bronze Italian medal of the first quarter of the sixteenth century, in the Victoria and Albert Museum, London. Armand, *Les Médailleurs Italiens*, second edition, Paris, 1883, vol. ii. p. 128; and vol. iii. (1887), p. 205.

(II.) Medal of Tommaso Moro of Venice, Prefect of Verona 1527.

Obv.—Bust to right. Inscription: THOMAS MAVRVS VENETVS VERONAE PRAEFECTVS.

Rev.—Phoenix in flames, an emblem of the resurrection of the body and the immortality of the soul. Inscription: MORIENS. REVIVISCO. —MDXXVII.—IO. MARIA. POMEDELVS. VERON. F.

Diameter, 2.0 inches. Bronze medal by Pomedello of Verona. Armand, *Les Médailleurs Italiens*, second edition, Paris, 1883, vol. i. p. 128, No. 11.

(II.) A phoenix, with the word REVIXIT, occurs likewise on the reverse of a medal of Cardinal Christofero Madruzzo, Prince-Bishop of Trento (died in 1578), by Lorenzo Parmigiano (Armand, *op. cit.*, vol. i. p. 278, No. 1)

(V.) The murder of Alexander de' Medici, the first Duke of Florence, 1537.

Alexander de' Medici was assassinated, in the name of liberty, by his kinsman Lorenzo de' Medici, called

"Lorenzino," on the night of 5th to 6th January, 1537. The following medal (which is not very rare, and for some information about which I am indebted to Mr. W. Wroth) is described by A. Armand, *Médailleurs Italiens*, second edition, Paris, vol. ii. p. 151, No. 3.



FIG. 17.

Obv.—Bare head of Lorenzino, to right. Inscription: LAVRENTIVS MEDICES.

Rev.—Cap of liberty (the Roman "pileus") between two daggers. Below: VIII · ID · IAN (6th January). Diameter, 1·5 inches; bronze. (See Fig. 17.)

The reverse device is adopted from the reverse of the Roman denarius of Brutus (which I have already referred to) commemorating the murder of Julius Caesar on the Ides of March, 44 B.C., but the date under the cap of liberty on the Italian medal is of course different. After the murder Lorenzino fled to Venice, where Filippo Strozzi (called "the younger") greeted him as the "Tuscan Brutus." The medal, which is of the size of a Roman large bronze coin or bronze medallion, was doubtless made at that time or slightly later,—I would suggest at Padua, perhaps by Giovanni Cavino. Lorenzino was himself assassinated in 1548.

(I.) German plaque, of about 1530-1540.

There is a circular plaque (1·8 inches in diameter) of white metal, possibly the reverse for a medal, representing a lady, in the costume of the time, seated in the interior of a room, offering the breast to a baby; on the table is a death's head and on the window-sill an hour-glass. It is of good workmanship, and signed L.R., apparently by Lorenz Rosenbaum, a goldsmith and a medallist of Schaffhausen. There are specimens in both the British Museum (see Fig. 18) and the Victoria and Albert



FIG. 18.—Plaque by Lorenz Rosenbaum. From an original in the British Museum.

Museum. The design is taken from a well-known engraving (already alluded to in Part I.: see Fig. 4) by Barthel Beham (1502-1540), which, though it may be intended to represent the Madonna and Child, seems likewise to suggest thoughts of the beginning and the inevitable end of life. Anyhow, two other engravings by B. Beham, representing human skulls (in one of these engravings there are three, in the other four skulls) and a baby with an hour-glass were certainly meant to suggest such thoughts and illustrate the line of Manilius :

"Nascentes morimur, finisque ab origine pendet;" or, as a physiologist has expressed it, "The first cry of the newly-born child is its first step towards the grave."

(II. or III.) Here we may for convenience mention a uniface portrait medal by Lorenz Rosenbaum, dated 1531, the portrait (bare head to right) being apparently that of the artist himself. The inscription is VT · MORTVVS · VIVEREM—VIVO · HIC · MORITVRVS. Signed L.R. 1531. The medal, which is cast in lead (diameter, 1.75 inches), is described and figured by E. Merzbacher, "Beiträge zur Kritik der deutschen Kunstmedaillen," *Mittheilungen der Bayerischen Numismatischen Gesellschaft*, München, 1900, vol. 19, p. 8, and Pl. i. Fig. 4. I am indebted for this reference to Mr. L. Forrer. Lorenz Rosenbaum, probably a son of the goldsmith Conrad Rosenbaum, was born at Schaffhausen, but from 1539 to 1546 worked as a goldsmith in Augsburg. The meaning of the legend is either: "Vivo hic moriturus," "I live here about to die," *i.e.* "This is my portrait before death;" "Ut mortuus viverem," "(I made this portrait) that I might live after death"—or else: "I live here (on earth) about to die (*i.e.* prepared for death) so that I may live after death;" but in the latter case one would have expected "vivam" instead of "viverem."

(II. and XIV.) Memorial medal of Queen Dorothea of Denmark (mother of Frederick II), (1560).

Obv.—Profile head of Queen Dorothea to right. Inscription: DOROTE REGINA DANIE MDLX.

Rev.—Hour-glass over skull and crossed bones. Inscription: BEDENCK DAS ENDT VND DIE STVNDE. (Fig. 19.)

Diameter, 1.1 inch; silver gilt. *Danske Mynter og Medailler i den Kongelige Samling*, Copenhagen,

1791, p. 212, No. 4, Pl. xii. No. 5. The meaning of the reverse inscription, which is similar to some inscriptions engraved on old-fashioned sundials, is doubtless that of Thomas à Kempis in



FIG. 19.

De Imitatione Christi, Book I. chap. xxv. 11 :
 "Memento semper finis, et quia perditum non
 redit tempus."

(I.) Medal of Onophrius Korn (1562).

Obv.—His bust, to left, with inscription.

Rev.—Male figure, holding hour-glass, leaning on an altar or tomb (on which is a death's head) inscribed :
 RESPICE FINEM. The whole reverse device
 is in an architectural "setting."

This medal, by a German artist signing himself S. W.,
 is figured by A. Erman, *Deutsche Medailleure*, Berlin,
 1884, Pl. vii. No. 3.

(XI.) Medal of Goffredo Franco (about 1565).

Obv.—Bust to left. Inscription : IOFREDVS FRANCVS.
 Artist's signature, P. P. R.

Rev.—A nude man standing on a pedestal in the middle of
 the sea, holding a rod in his left hand, his right
 foot resting on a skull. Inscription : POTIVS.
 MORI. QVAM. ANIMO. IMMVTARI ("Rather
 death than change one's mind").

Diameter, 2·2 inches. A medal by Pietro

Paolo Galeotti, called "Romano." Armand, *Les Médailleurs Italiens*, second edition, Paris, 1883, vol. i. p. 229, No. 7.

(XI.) The same reverse type and legend occur on a medal of Alberto Litta, dated 1565, attributed to the same artist (Galeotti), though not bearing any signature (Armand, *Les Médailleurs Italiens*, Paris, vol. iii. (1887), p. 112).

(I. and VIII.) Medal of Sebastian Zah, of Augsburg (about 1571).

Obv.—His bust to right, with bare head and pointed beard.
Inscription: SEBASTIAN . ZAH . ANNO .
AET . XXXXV. (Artist's signature) AN. AB.

Rev.—A man in rich costume, with feathers in his cap.
Inscription: RESPICE FINEM.

Diameter, 1.6 inches. By Antonio Abondio, the younger (1538–1591). Armand, *Les Médailleurs Italiens*, second edition, Paris, 1883, vol. i. p. 274, No. 34.

(XI.) Massacre of St. Bartholomew (1572).

The medal of Pope Gregory XIII, commemorating this event, bears the signature of the medallist, Federigo Bonzagna, called "Parmigiano."

Obv.—Bust of the Pope, to left, in cape and skull-cap.
Legend: GREGORIVS · XIII · PONT · MAX ·
AN · I · Below the bust, artist's signature, F. P.

Rev.—Destroying angel to right, holding sword and cross; men and women dead, wounded, and flying before her. Legend: VGNOTTORVM ·
STRAGES · 1572.

Diameter, 1.25 inches; struck; silver, bronze gilt. A. Armand, *Les Médailleurs Italiens*, second edition, Paris, 1883, vol. i. p. 226, No. 37. Many restruck examples and later copies exist;

the modern English copies, of a somewhat larger size, being those most unlike the originals.

The Massacre of the Huguenots is commemorated in the same spirit by Vasari's fresco in the Sala Regia of the Vatican at Rome, though the inscription under the painting has been obliterated.

Two French medals of Charles IX (one with the inscription: *VIRTUS IN REBELLES*, on the reverse) refer to the same event. See *Médailles Françaises dont les coins sont conservés au Musée Monétaire*, Paris, 1892, p. 10, Nos. 35, 36. Many restruct specimens exist.

(I.) Medal of Gabrielle Fiamma, of Venice, Bishop of Chioggia in 1584.

Obv.—His bust to right; in front, a human skull. Inscription: *MEMINISSE IVVABIT*.

Rev.—Inscription in twenty-five lines.

Diameter, 3·2 inches; a bronze cast medal of the second half of the sixteenth century, by Andrea Cambi, called "Il Bombarda," of Cremona. Armand, *Les Médailleurs Italiens*, second edition, Paris, 1883, vol. ii. p. 227; and vol. iii. (1887), p. 96.

The skull on the obverse may be intended as a *memento mori* device, but the obverse inscription refers apparently to Fiamma's passing safely through trials and difficulties of life: "*Forsan et hæc olim meminisse juvabit*" ("Perhaps some day it will be pleasant to remember even these"—Virgil, *Aen.*, lib. i. 203).

(XI.) Medal of Faustina Sforza, wife of the Marquis of Caravaggio Muzio (second half of the sixteenth century).

Obv.—Bust to right. Inscription: FAVSTINA · SFORTIA ·
MARCH · CARAVAGII.

Rev.—An ermine-like animal pursued by a huntsman and
a dog. Inscription: MORI POTIVS QVAM
FOEDARI (“Better to die than be defiled;”
“Rather death than dishonour”). Artist’s signa-
ture in incuse letters: PETRVS · PAVLVS ·
ROM.

Diameter, 3·0 inches. Medal by Pietro
Paolo Galeotti, called “Romano.” Armand,
Les Médailleurs Italiens, second edition, Paris,
1883, vol. i. p. 234, No. 35.

The reverse design on this medal refers to the power
of some of the “mustelidae” (*e.g.* the skunk) to save their
lives by ejecting a fluid of intolerable odour, which com-
pels their pursuers to abandon the chase. The meaning
of the reverse is therefore, “It is preferable to die than
to dishonour one’s self by committing a disgraceful
action;” “*Honesta mors turpi vitâ potior*” (Tacitus, *Vita
Agricolae*, xxxiii.).

(I.) A *memento mori* reverse for a medal, by the



FIG. 20.

Silesian medallist, Tobias Wolff (second half of the six-
teenth century), is figured in A. Erman’s *Deutsche*

Medailleure, Berlin, 1884, p. 69. A naked child, holding a flower, seated by a human skull and bones; in the background, a tree with a withered leafless branch and a vigorous branch rich in leaves. Inscription: SIT NOMEN DOMINI BENEDICTVM. (See Fig. 20.) This design, which bears the artist's signature, **W**, occurs as a reverse with an obverse of much later date. The design obviously illustrates the frequently quoted line of Manilius: "Nascentes morimur, finisque ab origine pendet." It also illustrates the eternal succession of new life springing from the old.

(II, VII., XVI.) Plaque representing Death yielding to Valour (or Virtue).



FIG. 21.

In the Ashmolean Museum at Oxford there is a sixteenth-century plaque of white metal (circular; diameter, 2·8 inches) with figures of Death and Valour (or Virtue) in very low relief. Death (on the left) is represented by a skeleton, crowned and holding a scythe, standing in an attitude of fear or submission before a fully armed

Minerva-like female figure approaching (on the right). Above the skeleton is the word MORS; above the armed figure, VIRTUS. Death may here represent destruction and ruin in an enterprise, or merely imminent defeat and death in warfare, which can sometimes be prevented by courage. The device may, however, be an allegorical representation of death being "swallowed up in victory" (*St. Paul's First Epistle to the Corinthians*, chapter xv. verse 54), that is to say, in a sense, being overcome by virtue. For permission to illustrate this plaque, I am indebted to Mr. Hogarth and Mr. Bell, of the Ashmolean Museum, who kindly sent me a cast (see Fig. 21).

(II.) A memorial medal of Adolph Occo III (1524–1606), a physician of Augsburg, has the following inscription on the reverse: VITA MIHI CHRISTVS MORS ERIT IPSA LVCRVM ("To me to live is Christ, and to die is gain"—*St. Paul's Epist. to the Philippians*, chapter i. verse 21). C. A. Rudolphi, *Numismata Virorum de Rebus Medicis, &c.*, Duisburg's edition of 1862, p. 110.

(III.) Another memorial medal of the same physician, communicated to me by Dr. H. R. Storer, has the following inscriptions on the reverse: ABSORPTA EST MORS IN VICTORIAM ("Death is swallowed up in victory"—*St. Paul's First Epistle to the Corinthians*, chapter xv. verse 54); and IPSE IVBET MORTIS TE MEMINISSE DEVS ("God Himself commands you to remember death"—*Martial, Epigram*, lib. ii. No. 59.⁷⁰ Compare *Psalms* xc. verse 12).

⁷⁰ What Martial's meaning was the context will best show—

"Frangite toros, pete vina, rosas cape, tinguere nardo:
Ipse jubet mortis te meminisse deus."

(II.) Memorial medal of Nicholas and Dorothy Wadham (1618?), the founders of Wadham College, Oxford.

Obv.—Bust of Nicholas Wadham, three-quarters, to right, head bare, in ruff and plain cloak. Inscription: WHEN CHRIST WHO IS OVR LIFE SHAL APPEARE.

Rev.—Bust of Dorothy Wadham, three-quarters, to left, in damasked gown, stiff ruff, and broad-brimmed hat. Inscription: WE SHAL APPEARE WITH HIM IN GLORY.

A narrow wreath, united by a skull at each side and at each end, forms a border on both sides. Oval medal, consisting of two plates or shells soldered together. Diameter, 2.15 × 1.8 inches. *Medallic Illustrations*, London, 1885, vol. i. p. 220, No. 73.

Nicholas Wadham, of a family settled at Merrifield, in Somersetshire, died in 1609, at the age of 77 years. Dorothy Wadham, his wife, died in 1618, at the age of 84 years. She was a daughter of Sir William Petre, Principal Secretary of State to Queen Elizabeth. The first stone of Wadham College was laid on July 31, 1610.

(V. and XI.) Execution of John van Olden Barneveldt, Grand Pensionary of Holland (1619).

There are three different medals commemorating the death of Barneveldt, each of which bears his portrait and name on the obverse, and an inscription on the reverse, referring to his high character and the injustice of his execution. These medals are described and figured in G. van Loon's *Histoire métallique des Pays-Bas*, French edition, 1732, vol. ii. pp. 109–111.

(II. and VIII.) Danish *memento mori* medal (1634).

Obv.—Inscription in seven lines: NAAR DU : MEENE. AD : FLORERE BEST SAA . ER . DØDEN DIN : WISSE GEST : (“When you think you are blooming best, Then is death your certain guest”).



FIG. 22.

Rev.—Skull and crossed bones, with hour-glass (surmounted by a ball to represent human life) and ears of corn. Inscription: HVOR . DV . DIG : WENDE ER . DØDEN . DIN . ENDE (“Wherever you wend, Death is your end”). In the field, the date 1634. (Fig. 22.)

Diameter, 1·0 inch; copper gilt; in the Royal Collection at Copenhagen. *Danske Mynter og Medailler i den Kongelige Samling*, Copenhagen, 1791, p. 331, No. 842, Pl. xxii. No. 12.

I do not know whether the ears of corn associated with the skull and bones on the reverse of this medal refer to the eternal succession of life and death in the world, or to the doctrine of the immortality of the soul. Perhaps the device refers to the New Testament parable of the corn and the tares (Matt. xiii. 24-30), and the ears of corn signify the good, who are to be separated from the bad (the tares) on the judgment day. Corn occurs again associated with a skull on a Danish memorial medal of George Hojer, 1670 (described later on).

(II. and VIII.) Danish *memento mori* medal (1634).

Obv.—Bust of a young woman, with coronet on her head, to right. Inscription: (in outer circle:) LERE·

OS · AT · BETENCKE · AT · WI · SKULLE ·
 (and in inner circle:) DØE · AT WI · MA · BLIFE ·
 PSAL · 90 ("Teach us to remember that we
 must die, so that we may become wise," *Psalm* xc.
 verse 12, after Luther's translation). In the field
 to right: IEG ER SKIØN ("I am beautiful").



FIG. 23.

Rev.—Skeleton standing by a table resting left hand on an
 hour-glass. Inscription: (in outer circle:) MINE ·
 DAGE · HAFTE · VERIT · SNARERE · END ·
 EN · LØBERE . (and in inner circle:) DE ·
 FLYDE · BORT · OCH · HAFTE · INTET IOB
 9 ("My days are swifter than a post: they flee
 away, they see no good"—*Job*, chapter ix. verse 25).
 In the field, below the table: IEG WAR SKIØN
 1634 ("I was beautiful, 1634"). (Fig. 23.)

Diameter, 1.75 inches; gold; in the Royal
 Collection at Copenhagen. *Danske Mynter og
 Medailler*, loc. cit., p. 331, No. 841; Pl. xxii.
 No. 11.

These last two medals (specimens of which my father,
 Sir H. Weber, kindly examined during a recent visit to
 Copenhagen) are said to have been struck on the
 death of Anna Cathrina, the eldest daughter of King
 Christian IV of Denmark by his morganatic wife,
 Christina Munk (or Munck). The lady in question (born
 in 1618) was betrothed to Frantz Rantzow (or Rantzau),

Governor of the Royal Palace, when the latter was (apparently accidentally) drowned in the moat of the Royal Palace of Rosenborg in 1632. She is supposed to have died of grief in the following year (1633). *Vide* F. C. Schönau, *Leben und letzte Stunden Christina von Munk*, German translation, Copenhagen and Leipzig, 1757, p. 211.

The last described medal (with words meaning "I am

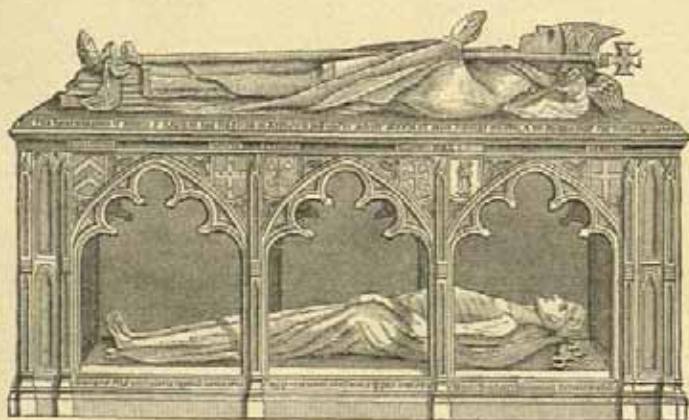


FIG. 24.

beautiful" on the portrait side, and "I was beautiful" on the skeleton side) may be compared to certain sepulchral monuments designed to serve as a *memento mori* to the living as well as a memorial of the dead. As a typical example of such monuments, we may instance the fine one in Canterbury Cathedral of Henry Chichele (died 1443), Archbishop of Canterbury, and founder of All Souls' College, Oxford. On a table, under an elaborate canopy, is a recumbent figure, representing the Archbishop during life in full canonicals. On a slab below the table an emaciated dead body (wrongly described as

a skeleton)⁷¹ is represented (see Fig. 24). Round the verge at the bottom of the monument is the *memento mori* inscription—

“ Quisquis eris qui transieris rogo memoreris,
 Tu quod eris mihi consimilis qui post morieris,
 Omnibus horribilis, pulvis, vermis, caro vilis.”

With this inscription may be compared that on an analogous monument of a bishop in Exeter Cathedral—

“ Ista figura docet nos omnes meditari
 Qualiter ipsa nocet mors quando venit dominari ;”

and also the following from a sepulchral monument in the Church of the Celestines at Herverlé, near Louvain—
 “ Nunc putredo terrae et cibus verminorum.” Many sepulchral monuments of the kind⁷² are referred to in Richard Gough’s *Sepulchral Monuments of Great Britain*, London, 1786–1796, vol. i. pp. cx.–cxii., and vol. ii. pp. cxviii.–cxx. Compare also T. J. Pettigrew’s *Chronicles of the Tombs*, London, 1857, pp. 62–68: “ Admonitory Epitaphs.”

(II. and VIII.) German *memento mori* medal of about 1634.

Obv.—Bust of a young woman with coronet on her head to right. Inscription: QVAE SIM POST TERGA

⁷¹ See R. Gough’s *Sepulchral Monuments*, vol. ii. (1796), p. 129.

⁷² With sepulchral monuments of this kind, those of Greek times, with their simple (and in the best examples, very beautiful) so-called “parting scenes” may be contrasted. But on the mural paintings of Etruscan tombs, the representation of the brutal-looking Etruscan “Charun” (as the messenger of death), and sometimes other horrible Gorgon-like “demons,” holding snakes, &c., invest death and the parting scenes depicted with horrors equal to those suggested by mediaeval art and legends.

VIDEBIS ("Who I am you will see on the reverse").

Rev.—Skeleton standing by a table, resting left hand on an hour-glass. Inscription: SIC NVNC: PVLCHERRIMA QVONDAM ("Like this now; very beautiful once"). In the field below the table: CVM PRIVIL: CAES: C.M. (Fig. 25.)



FIG. 25.

Oval medal, 1.5 × 1.2 inch; illustrated in Forrer's *Biographical Dictionary of Medallists*, London, vol. iii. p. 542.

The German medallist, Christian Maler, generally added the words "cum privil." to his signature C.M., as he has done on the reverse of this medal, because he held the Imperial permission to strike medals in his own house. The designs of obverse and reverse are evidently copied, as Mr. C. F. Gebert of Nürnberg kindly pointed out to me, from those on the medal last described, which is supposed to relate to the death of Anna Cathrina, daughter of King Christian IV of Denmark. The legends on the medal may be compared with inscriptions on memorial rings, &c., such as: "Quod es fui, quod sum eris," "Hodie mihi cras tibi." I have to thank Mr. L. Forrer for the kind loan of the blocks for the illustration (Fig. 25).

(I.) A badge of the guild of physicians and surgeons at Delft (1635) bears on the obverse a skull and crossed bones, with the inscriptions: MEMENTO MORI and DELPHENS. S(igillum) COLLEGII MEDIC & CHIRURG. The device is that on the seal of the guild in question. H. R. Storer, *Amer. Journ. Num.*, April, 1901, p. 111, No. 1614.

(II.) Memorial medal on the death of Sir John Hotham (1645).

Obv.—Bust of Hotham to right; behind his neck, a minute skull, surmounted by a crown. Inscription: MORS MIHI VITA.

Rev.—Shield of arms of Sir John Hotham impaling those of his fifth wife, Sarah, daughter of Thomas Anlaby, of Elton, in Yorkshire.

Diameter, 1.25 inches; cast and chased in silver. *Medallic Illustrations*, 1885, vol. i. p. 314.

Sir John Hotham was Parliamentary Commander of Hull, but became dissatisfied with the proceedings of the Parliamentary party, and was with his son suspected of treason. They were both condemned and executed on Tower Hill.

(II. and V.) Memorial medal on the death of King Charles I of England (1649).

Obv.—Bust of Charles I to left. Legend: CAROLVS D. G. &c.

Rev.—A skull between the letters C. R.; over it, a celestial crown with a label GLORIA; below it, an earthly crown with the label VANITAS. Legend: BEATAM . ET . ETERNAM . SPLENDIDAM . AT . GRAVEM. The legend signifies: “(I receive) a blessed and eternal (crown). (I

relinquish) one splendid but burdensome." Floral border on both sides.

Oval medal; diameter, 0·8 by 0·7 inch; cast and chased in silver. *Medallic Illustrations*, 1885, vol. i. p. 344.

The device on the reverse is illustrated by the following passage in the *Icon Basilike*:—"I shall not want the heavy and envied crownes of this world, when my God hath mercifully Crowned and Consummated his graces with Glory, and exchanged the shadows of my earthly Kingdome among men, for the substance of that Heavenly Kingdome with himselfe." The device on one of the memorial rings (described in a later portion of this paper) on the King's death is similar to that on the reverse of this medal.

The following four pieces belong to the class of so-called "Moralische Pfenninge" struck at Basel in the seventeenth century. They were apparently designed to be given as presents, sometimes probably in connexion with funerals. The medallist, whose signature on these pieces is F. F., was doubtless Friedrich Fechter or one of his family (F. F. standing either for Friedrich Fechter or for "Fechter fecit"). In connexion with *memento mori* medalets of this class, it must not be forgotten that the devastating epidemics of disease in the sixteenth and seventeenth centuries gave them an increased significance at the time when they were issued.

(I. and VIII.)

Obv.—Basiliak, with leaf-like wings, holding shield bearing the arms of Basel.

Rev.—Skull on bone, with worm; rose-tree with flower and buds growing over it. Inscription: HEUT

RODT MORN DODT ("To-day red, to-morrow dead"). In exergue, an hour-glass and the engraver's signature, F.F. (Fig. 26.)



FIG. 26.

Diameter, 0·95 inch ; struck in silver. R. S. Poole, *A Descriptive Catalogue of the Swiss Coins in the South Kensington Museum* (the Townshend Collection of Swiss Coins), London, 1878, p. 45, No. 15.

(I. and VIII.)



FIG. 27.

Obv.—View of the city of Basel.

Rev.—Skull and crossed bones ; above which, rose-tree with flower and buds ; beneath, hour-glass. Inscription: HEUT . RODT . MORN . DODT ("To-day red, to-morrow dead"). (Fig. 27.)

Diameter, 0·8 inch ; struck in silver. R. S. Poole, *op. cit.*, p. 45, No. 16.

(I. and VIII.)

Obv.—Branch with three roses. Inscription: HEV SENID WIER ROT ("Heut sind wir roth"—"To-day we are red").

Rev.—Dead stag to left, transfixed with arrow, beneath trees. Inscription: **UND MORGEN TODT** ("And to-morrow dead"). (Fig. 28.)



FIG. 28.

Diameter, 0.6 inch; struck in silver. R. S. Poole, *op. cit.*, p. 45, No. 17.

(II.)



FIG. 29.

Obv.—View of the city of Basel.

Rev.—Phoenix in burning nest (emblem of the resurrection of the body, and the immortality of the soul). Inscription: **MORIAR UT VIVAM** ("I will die that I may live"). (Fig. 29.)

Diameter, 1.2 inches; struck in silver. R. S. Poole, *op. cit.*, p. 46, No. 20.

(L) An English seventeenth-century *memento mori* medalet (*circa* 1650).

Obv.—A child seated on the ground, leaning on a skull. On either side, a flower. In the background, a building with spires, apparently meant to represent a church. The whole type surrounded by a serpent with its tail in its mouth. No legend.

Rev.—Legend in two circles with a rose in the centre :
 (in outer circle), AS . SOONE : AS . WEE . TO
 . BEE . BEGVNNE : (and in inner circle):



FIG. 30.

WE . DID . BEGINNE : TO . BE : VNDONE :
 (Fig. 30.)

Diameter, 1.25 inches ; struck in bronze.

A specimen, which I afterwards presented to the British Museum Collection, was described by me in the *Numismatic Chronicle*, 1892 (Third Series, Vol. XII. p. 253), where I alluded to its resemblance in style of workmanship and in certain details of execution to the medal commemorating John Lilburne's trial in 1649 (*Medallic Illustrations*, 1885, vol. i. p. 385, No. 3). A similar piece, possibly from another die, but with the same legend, was described by J. Atkins (*The Coins and Tokens of the Possessions and Colonies of the British Empire*, London, 1889, p. 250) as a jeton or token supposed to have been issued by Sir Walter Raleigh for the Settlement made by him in Virginia, 1584.

There is another variety (see Fig. 31) with a slight difference in the legend, a specimen of which was kindly shown me by the late Sir John Evans, to whom it belonged. It is of decidedly rougher and more careless workmanship, somewhat smaller (diameter, 1.15 inches), and reading : (in outer circle :) AS . SOONE . AS WEE .

TO . BEE . BEGVNN (and in inner circle:) WE .
DID . BEGIN . TO . BE . VNDONN. This variety is
figured in the Catalogue of the Fonrobert Col-



FIG. 31.

lection, by Adolph Weyl (Berlin, 1878, p. 336,
No. 3728).

I think these pieces may have been produced to be

FIG. 32.—Design from Wither's *Emblems*, 1635.

distributed at funerals. The obverse design and the
legend on the reverse were evidently derived from an
illustration (see Fig. 32) in G. Wither's *Emblems* (London,

1635, folio, p. 45); and the legend is an English rendering of the well-known Latin hexameter line: "Nascentes morimur finisque ab origine pendet" (Manilius, *Astronomicon*, iv. 16). Wither may have derived the idea of the child leaning on the skull from one of Giovanni Boldu's medals already referred to, or from one of Barthel Beham's engravings representing a child and skulls.

The perpetual springing up of new life to replace the old life which is decaying, is indicated on these medalets by the flowers and by the serpent with its tail in its mouth, an emblem of eternity. As Schiller (*Wilhelm Tell*, 1804) puts it—

"Das Alte stürzt, es ändert sich die Zeit,
Und neues Leben blüht aus den Ruinen."

(I.) Halfpenny token of John Brearcliffe or Briercliffe, of Halifax (circa 1670).



FIG. 33.

Obv.—Inscription in five lines: *John Brearcliffe in Halifax his halfe Penny.*

Rev.—A skull and crossed bones, with the inscription: *RESPICE FINEM*, on a label above the skull. (Fig. 33.)

Diameter, 0·8 inch; struck in copper or bronze. G. C. Williamson's edition of Boyne's *Trade Tokens*, London, 1891, vol. ii. p. 1317, No. 104.

John Brearcliffe was a surgeon and antiquary of Halifax, where he died in 1682, at the age of sixty-three years. The device on the reverse of this token is one of the commonest and simplest *memento mori* devices of the sixteenth and seventeenth centuries. Shakespeare refers to a similar device, when, in the Second Part of *Henry IV.* (act ii. scene 4), he makes Falstaff say, "Do not speak like a death's head; do not bid me remember mine end."

(XIII.) Memorial medal on the death of George Hojer (1670).

Obv.—Skull, lamp, and corn. On a ribbon above is the inscription: *Obiit Amstelodami 26 Aprillis CIOIOCLXX.* Below: *Mors omnibus aequa.*

Rev.—Inscription in six lines: *P M Cl^{us} Doct^{us} Viri Georgii Hojer Commissarii Regis Daniae VITA EST MEDITATIO* ("To the pious memory of the most illustrious and learned man, George Hojer, Commissary of the King of Denmark.—Life is Meditation").

Oval, 2.1 by 1.85 inches. Illustrated in *Danske Mynter og Medailler i den Kongelige Samling*, Copenhagen, 1791 (Coins and Medals of Christian V), Pl. 62, No. 3.

The corn with the skull and lamp on the obverse of this medal evidently has the same signification as that associated with the death's head and hour-glass on a Danish medal of 1634, already described and illustrated (see Fig. 22).

(V. and XI.) Murder of the brothers Jan and Cornelius De Witt, at the Hague, 1672.

There are seven medals commemorating the murder of the De Witts. All of these are figured and described in

G. van Loon's work, *Histoire métallique des Pays-Bas*, French edition, 1732, vol. 3, pp. 81-85. The largest of these medals (diameter, 2.75 inches), signed by a medallist, "Aury" (about whom nothing is known),⁷³ bears on the obverse the portraits of the two De Witts facing each other; the reverse design represents their murder by the populace in the guise of a many-headed monster. There is a fine specimen of this medal struck in gold in the British Museum Collection. On the reverse of one of the other medals, the dead bodies of the two brothers are shown fastened to a post.

(I. and II.) Memorial medal on the death of Anne Eldred (1678).

Obv.—Armorial shield. Legend: ANNE · THE · WIFE · OF · IO · ELDRED · ESQ. DIED · MAR · THE · 31 · 1678 · AGED · 72.

Rev.—A veiled female figure seated, facing, holding a skull, and resting her head upon her hand supported by a pedestal, on which stands an urn. Legend: A WISE WOMAN BVILDETH HER HOVSE.

Diameter, 2.0 inches; a hollow medal, cast and chased in silver, in high relief, of rather coarse workmanship. *Medallic Illustrations*, 1885, vol. i. p. 571; Lady Evans, *Numismatic Chronicle*, Fourth Series, 1908, Vol. VIII. p. 178.

The Anne Eldred commemorated on this medal was the wife of John Eldred (who died November 16, 1682), of Olivers, in Essex, and was the daughter and co-heir of Thomas Godman, of Leatherhead, Surrey. For further

⁷³ "Aury" may not have been the real name of the medallist. Moreover, the medallist may not have been a Dutchman.

details, see Lady Evans, "Memorial Medal of Anne Eldred," *Numismatic Chronicle*, 1908, *loc. cit.*

(I.) Josias Nicolson. Memorial medal on his death (1683-84).

Obv.—Bust of Nicolson, three-quarters, to left, with the legend: IN REMEMBRANCE OF JOSIAS NICOLSON. The legend is divided by four death's heads.

Rev.—Death leaning on a spade, with the legend (incuse): MEMENTO MORI.

Diameter, 2.15 inches; made of two plates of silver, cast and chased, in high relief and of somewhat rude workmanship. In the collection of the late Sir John Evans. *Medallic Illustrations*, 1885, vol. i. p. 597.

In regard to what is known about this Josias Nicolson and his family, see Lady Evans's article in the *Numismatic Chronicle* (Fourth Series, Vol. IX. p. 241), where the medal is well illustrated.

(I.) Memorial medal on the death of King Charles II of England (1685).

Obv.—Time seated to right, on a tomb, with one foot on a skull, holding in one hand a scythe and hour-glass, and extending a laurel wreath in the other. Legend: TO · THE · COLD · TOMB · ALL · HEADS · MVST · COME.

Rev.—Inscription: KING · CHARLES · THE · SECOND · AETAT · 55 · OBIT · FEBRV · 6 · ANNO · DOM · 1684. (The date is according to the old style.)

Diameter, 1.55 inches; struck in silver and copper. *Medallic Illustrations*, 1885, vol. i. p. 601. There are two varieties, differing from each other only in the arrangement of the legend on the obverse.

This legend on the obverse is taken from James Shirley's *The Contention of Ajax and Ulysses* (1659)—

“ Your heads must come
To the cold tomb ;
Only the actions of the just
Smell sweet, and blossom in their dust.”

A specimen of the second variety, in the British Museum Collection, has had the reverse inscription erased, and another inscription engraved in its place, commemorating the death, in 1702, of Bartholomew Gidley, of Gidley, in Devon. Specimens, thus altered, were probably distributed at the funeral of Bartholomew Gidley.

(VIII.) Memorial medal on the death of King Charles II of England (1685).

Obv.—Bust of Charles II to right. Legend: CAROLUS II D. G., etc.

Rev.—Sea, with setting sun. Legend: OMNIA ORTA OCCIDUNT. In exergue, MDCLXXXV.

Diameter, 1·95 inches ; struck in silver or (as in a specimen which belonged to me) in white metal. *Medallic Illustrations*, 1885, vol. i. p. 601.

The reverse legend, referring to the dissolution of all created things, is derived from Sallust, *Jugurtha*, 2, and may be compared with *Ecclesiastes*, chapter i. verses 4, 5 : “ One generation passeth away, and another generation cometh. . . . The sun also ariseth and the sun goeth down, and hasteth to his place where he arose.”

(V.) Execution of Monmouth and Argyle (1685).

Obv.—Bust of King James II of England, with his titles, &c.

Rev.—A pedestal inscribed: AMBITIO MALESUADA RUIT; on the pedestal, Justice, trampling on a serpent, weighs three crowns against the sword, the torch, and the serpent of discord. At her feet lie the bodies of Monmouth and Argyle; their heads are on blocks inscribed: IACOBUS DE MONTMOUT—ARCHIBALD D'ARGYL. Above, the sun. On one side, lightning darting against troops at Sedgemoor. On the other side, two heads fixed over the gates of the Tower of London.

Diameter, 2·4 inches; struck in silver and white metal. *Medallic Illustrations*, London, 1885, vol. i. p. 615, No. 27.

This medal is by R. Arondeaux, a Flemish medalist, of the end of the seventeenth century. There are other medals commemorating the defeat and execution of Monmouth. One of them (*Medallic Illustrations*, *loc. cit.*, No. 26) presents the rebellion in a different light. It bears the portrait of Monmouth on the obverse, and, on the reverse, his head spouting blood, with the legend: HUNC SANGUINEM LIBO DEO LIBERATORI.

(XI.) Revocation of the Edict of Nantes, by Louis XIV, 1685.—Persecution and Martyrdom of Huguenots.

A medal commemorating the Revocation of the Edict of Nantes bears on the obverse a figure of the Pope seated on the beast with seven heads, holding the keys in his left hand and wielding a thunderbolt with his right hand. On the reverse is a scene representing the execution and persecution of Protestants in France, with the inscription: EX MARTYRIIS PALMAE. Diameter, 2·25 inches; struck in silver.

This and two other medals on the same subject are described and figured by G. van Loon, in his *Histoire*

métallique des Pays-Bas (French edition), 1782, vol. 3, p. 312, Nos. 1-3.

(II.) Seventeenth-century ornamental memorial plate (1688).

Lady Evans has kindly shown me a small engraved and enamelled plate, the design on which is oval, measuring 1.75 by 2.0 inches. On a shield-shaped compartment, the following inscription is engraved: "James Son of Ben^l Warren and Mary Denew ob: 22^d March 168 $\frac{7}{8}$ aged 5 years. Dreamed 48 hours before he dyed that he had Wings and Flew to HEAUVEN." Above the inscription are two cupids supporting a crown.

(II. and VI.) Memorial on the death of Marshal Schomberg at the Battle of the Boyne (1690).

Obv.—Bust of Marshal Schomberg, three-quarters, to right.
Legend: FRIDERICUS MARESCHALCUS SCHOMBERG, &c. Artist's signature on truncation, P. H. M. (Philipp Heinrich Müller).

Rev.—Schomberg, in Roman dress, resting on a shield ornamented with the Christian monogram, plants, like another Hercules, his club, which takes root and flourishes as an olive-tree, &c.

Diameter, 1.95 inches; struck in silver, &c., or (as a draughtsman) in wood.

For a more complete description of the reverse of this medal, see *Medallic Illustrations*, 1885, vol. i. p. 717, No. 139. The edge bears the inscription: PRO RELIGIONE ET LIBERTATE MORI, VIVERE EST, with the initials of Friedrich Kleinert, who is said to have been the first medallist in Germany to strike medals with an inscription on their edges.

(V.) Execution of Grandval (1692).

There are several medals commemorating the execution of Barthélemy de Lignières, Chevalier de Grandval, on account of his share in the plot to assassinate William III of England. He was hung, drawn, and quartered, and on three of the medals gallows and poles bearing his head and quarters are represented. *Medallic Illustrations*, 1885, vol. ii. pp. 75-78, Nos. 287-290.

(I.) There are various medalets (about 1661-1693) of the Guild of Surgeons at Middelburg, which bear *memento mori* devices. One of them has on the obverse a skeleton with hour-glass and dart and the inscription: VIVE MEMOR LETHI. See H. R. Storer, *Amer. Journ. Num.*, July, 1901, p. 17, Nos. 1636-1639.

(I.) Various entrance tickets to the Medical Garden of Amsterdam bear *memento mori* devices, such as a skeleton with scythe, hour-glass, and tomb. I suppose they began to be used in the second half of the seventeenth century. See H. R. Storer, *Amer. Journ. Num.*, July, 1901, p. 19, Nos. 1651-1664.

(IX.) Memorial of the death of William Cheselden, the surgeon (1752). The Cheselden prize-medal of St. Thomas's Hospital, London, for practical surgery and surgical anatomy.

Obv.—Bust of William Cheselden (1688-1752), the well-known surgeon, to right. Legend: CHESELDEN.
Below, W. WYON SC. MINT.

Rev.—The body of a man laid out for dissection. In the back-ground, on a table decorated with the arms of St. Thomas's Hospital, are a skull, book and vases; above is a human leg which has been

dissected. Legend: MORS VIVIS SALVS. In the exergue: ST. THOMAS'S HOSPITAL.—W. WYON S. MINT.

Diameter, 2.85 inches; struck. *Medallic Illustrations*, 1885, vol. ii. p. 668.

This beautiful prize-medal, one of the finest works of William Wyon, R.A. (1795–1851), was founded by the late George Vaughan.

(IX.) The Bristowe prize-medal of St. Thomas's Hospital, London, may be mentioned for convenience here. On the obverse is the profile head to left of Dr. John Syer Bristowe (1827–1895), a well-known physician of the hospital. The reverse represents the interior of a pathological laboratory, with a young man seated to right, examining a human heart. The medal is awarded annually in silver for pathology.

(XIV.) A medal of J. H. Pozzi (1697–1752), poet and physician of Bologna, is inscribed on the reverse with the Hippocratic aphorism, VITA BREVIS ARS LONGA. C. A. Rudolphi, *Numismata Virorum de Rebus Medicis, &c.*, Duisburg's edition of 1862, p. 28.

The following medals and medalets, bearing the same Hippocratic aphorism, are placed here for convenience, though somewhat out of their chronological order.

(XIV.) A medal of Dr. C. G. B. Daubeny (1795–1867), Professor of Chemistry at Oxford, has the legend, ARS LONGA VITA BREVIS, on the reverse. H. R. Storer, *Amer. Journ. Num.*, July, 1893, p. 12, No. 630.

(XIV.) A medal commemorating the foundation of the Medical Association of Warsaw, 1809, bears the Hippocratic aphorism, Ο ΒΙΟΣ ΒΡΑΧΥΣ Η ΔΕ ΤΕΧΝΗ

MAKPH, and the names of Dr. A. F. von Wolff and the other founders. C. A. Rudolphi, *Numismata Virorum de Rebus Medicis, &c.*, Duisburg's edition of 1862, p. 193.

Dr. H. R. Storer has kindly furnished me with descriptions of medals on which this famous aphorism of Hippocrates occurs. Besides the medals of Pozzi and Daubeny and of the Warsaw Medical Association, already mentioned, it occurs in Latin on medalets of various Paris medical societies, including the Société Médicale (founded 1796), the Société Médico-Philanthropique (1806), and the Société Médico-Pratique (1808).

(V.) Threat of death to Admiral John Byng, after the loss of Minorca in 1756.

Obv.—Half-length figure of General Blakeney, facing, holding the British flag; on one side is a ship, on the other a fort firing cannon. Inscription: BRAVE. BLAKNEY. REWARD. (in exergue:) BUT. TO. B. GIVE. A. CORD.

Rev.—Half-length figure of Admiral Byng, three-quarters, to left, receiving from a hand a purse; behind him, a ship. Inscription: WAS MINORCA SOLD BY · B · (in exergue:) FOR · FRENCH GOLD.

Diameter, 1·4 inches; struck in brass or bronze. *Medallic Illustrations*, London, 1885, vol. ii. p. 679, No. 394. There is likewise a slightly smaller variety of this medal with a relatively larger figure of Byng (*Medallic Illustrations*, *loc. cit.*, No. 395).

The island of Minorca surrendered to the Duc de Richelieu, on June 27, 1756. This medal is one of the toy-shop or popular kind, like those struck to commemorate the taking of Porto Bello by Admiral Vernon in 1739; and it was doubtless one of the numerous means of exciting popular indignation against Admiral

Byng. On his return he was tried by court-martial, condemned, and shot on the quarter-deck of the *Monarque*, 14th March, 1757.

(V.) Satirical tokens threatening Thomas Paine (1793-1797).

There are many halfpenny and farthing tokens of the end of the eighteenth century, representing on the obverse a man hanging from a gallows, with the inscription END OF PAIN. On one variety of this type a demon is seated on the gallows, smoking a pipe. Amongst the reverse-types of this series are the following:—

(a) An open book inscribed: THE WRONGS OF MAN · JANUARY 21 1793.

(b) Inscription: MAY THE KNAVE OF JACOBIN CLUBS NEVER GET A TRICK.

(c) A man and a monkey, each standing on one leg, with the inscription: WE DANCE · PAIN SWINGS.

(d) A number of combustibles, intermixed with labels, issuing from a globe inscribed FRATERNITY. The labels are inscribed: REGICIDE, ROBBERY, FALSITY, REQUISITION, FRENCH REFORMS 1797.

See James Atkins, *The Tradesmen's Tokens of the Eighteenth Century*, London, 1892, pp. 133, 373, 374, 382, 383.

Thomas Paine (1737-1809) published his *Rights of Man* in London, 1790-1792, and, after migrating to France in 1792, was given the title of French citizen and elected a member of the Convention. His *Age of Reason* was published in 1793, and made him still more unpopular in England.

The satirical halfpenny and farthing tokens of the "END OF PAIN" type probably helped to prejudice

the people against him. Such political tokens doubtless served the purpose of cheap political newspapers, just as some of the "toy-shop medals" (such as those of Admiral Vernon) did during an earlier portion of the same century.

(II.) A memorial medal of Aloisio Galvani (1737-1798), by Mercandetti (1803), bears on the reverse the inscription: MORS MIHI VITA, (and in the exergue:) SPIRITUS INTUS ALIT (Virgil, *Aen.*, vi. 726). C. A. Rudolphi, *Numismata Virorum de Rebus Medicis*, &c., Duisburg's edition of 1862, p. 33.

(IX. and XI.) The Fothergillian medal of the Royal Humane Society (London), 1810.

Obv.—A raft with a man and two boys. In the distance a hastening boat. Artist's signature, W. WYON R.A.

Rev.—A nude child, to right, endeavours to rekindle a torch with his breath. Legend: LATEAT SCINTILLVLA FORSAN. In exergue: EX MUNERE ANTONII FOTHERGILL, M.D. MDCCCX. Artist's signature: W. WYON R.A.

Diameter, 2·8 inches; struck in bronze or gold.

This medal has been awarded in gold on about four occasions since it was founded, for the best treatise on methods of saving life. The British Museum now possesses the specimen struck in gold awarded to the late Sir John Erichsen, the surgeon, in 1845, for his *Experimental Enquiry into the Pathology and Treatment of Asphyxia*. Amongst others who received the medal struck in gold was H. R. Silvester, whose "method of restoring persons apparently drowned" was adopted by the Royal Humane Society in 1861. The beautiful

reverse design occurs likewise on the ordinary medals awarded by the Society for gallantry in saving life. Into the general subject of medals awarded for or commemorating gallantry in life-saving in England and other countries, I shall not enter here. It constitutes a large subject in itself.

(X.) Epidemic of cholera in Paris (1832).

A French medal, by E. Rogat (1832), has on the obverse a figure of Aesculapius feeling the pulse of a sick woman with his left hand, and warding off a figure of death with his right hand. Diameter, 3.3 inches. Figured in *Pestilencia in Nummis*, by L. Pfeiffer and C. Ruland, Tübingen, 1882, No. 450.

(V.) Indignation against the so-called "Massacres of Galicia" in connexion with the suppression of the revolt in Austrian Poland (1846).

Obv.—Head of Liberty, to right; in front, a bayonet; behind, a palm-branch. Inscription (incuse): DÉMOCRATIE FRANÇAISE. Below the head is the artist's signature, *David*, with the date, 1846.

Rev.—A gallows. Inscription (incuse): MASSACRES DE GALLICIE (and in the field below the gallows:) METTERNICH BRENDT VOÛÈS A L'EXÉCRATION DE LA POSTÉRITÉ.

Diameter, 1.6 inches; cast in bronze, very low relief. A specimen was formerly in my collection.

It is the work of (or rather from models by) the French sculptor, P. J. David d'Angers, whose extensive series of portrait medallions (cast in bronze) is so well known. In the Musée David at Angers is a large cast bronze medallion (diameter, 15.75 inches), by the same artist, and commemorating the same historical episode. It

represents Liberty inscribing on a gallows the names of the leaders who were regarded by the French and Poles as responsible for the "massacres" (*Catalogue of the Musée David*, by H. Jouin, Angers, 1881, p. 222, No. 210). The same museum contains a design for the head of Liberty on the obverse of the above-described medal. David d'Angers, like his friend and patron, Louis David, the painter, was much concerned in the political movements of his time, and after the *coup d'état* of 1852, was forced to leave France, owing to the position he had taken up.

(XI.) Death of Denis Auguste Affre, Archbishop of Paris (1848).

There are a considerable number of struck medalets commemorating his martyr-like death, having his portrait on the obverse and various devices on the reverse. On one reverse the inscription is: MORT MARTYR DE SON HÉROÏQUE DÉVOUEMENT 27 JUIN 1848. A contemporary rough medalet, cast in white metal, is figured in *Souvenirs Numismatiques de la Révolution de 1848*, Paris (not dated), Pl. 54, No. 6.

Archbishop Affre was shot on the barricades in Paris, whilst endeavouring to prevent bloodshed between the Parisian insurgents (red republicans), who were defending the barricades, and the tricoloured soldiery who were attacking them. He had been warned by General Cavaignac of the risk he ran in such an attempt, but replied that his life was of small consequence. He was removed to his palace, where he died on 27th June, 1848.

(VII.) Medal of Samuel Plimsoll, "the Sailors' Friend" (1875).

Obv.—His head to left, wearing spectacles; neck and shoulders clothed. Inscription: S. PLIMSOLL, HOUSE OF COMMONS 22 JULY 1875 LONDON. Signed on the truncation, A. CHEVALIER.

Rev.—Ship at sea, sinking. On a sail is pictured a death's head with crossed bones. In exergue are the words, COFFIN SHIP.

Diameter, 1·4 inches; struck in bronze or brass, with loop for suspension.

These medalets refer to the "death-traps" termed "coffin ships," which Mr. Plimsoll greatly helped in abolishing. These or similar smaller medalets were made by A. Chevalier, an engraver (of Paris), and were worn by those present at a *fête* given in 1875, when Mr. Plimsoll was elected Member of Parliament for Liverpool.

(X.) Commemorative medal of the International Medical Congress held in London (1881).

This medal has on the obverse the crowned head of Queen Victoria to left, and on the reverse an allegorical design by Sir John Tenniel (executed by Leonard C. Wyon, son of W. Wyon, R.A.), representing Aesculapius standing in front of a globe; before him a mother, holding her sick child, and two sufferers, seek his aid; behind him a figure of death is represented floating in the air. Diameter, 2·8 inches; struck in bronze, &c. From the artistic point of view, this medal is unfortunately not pleasing.

(1) There are, according to Bergsøe, certain "pest-tokens" (1889), bearing on the obverse a skull and crossed bones, with or without the inscription, MEMENTO MORI, and on the reverse the inscription, DEN ER DIG VIS ("It—death—is certain for you"). Vilhelm

Bergsøe, *Danske Medailler og Jetons*, Copenhagen, 1893, p. 141, Nos. 989, 990.

(III.) A cast commemorative bronze plaquette (4.5 × 3.25 inches) of Philippe de Girard, by the modern French artist, Louis Eugène Mouchon (1892), bears an allegorical representation of posthumous fame. A specimen of this plaquette is exhibited in the Luxembourg Museum at Paris.

Philippe de Girard, the inventor of the flax-spinning machine, was born in 1775 at the village of Lourmarin, in the department of Vaucluse. He died in 1845. During his life he never received due recognition for his varied talents, his restless work, and his useful inventions; it was not till 1882 that a bronze statue (by Guillaume) was erected to him at Avignon.

(X. and XI.) Medal awarded for help in sanitary and medical work during the epidemic of bubonic plague at Hong-Kong (1894).

Obv.—Sick Chinaman on a bed, partly supported by a European man, who with his left arm presses back a figure of death floating in the air and aiming a spear at the sick man. On the other side of the bed stands a European sick-nurse. In the field, on the left, Chinese characters signifying Hong-Kong. On the right, A. WYON SC. In exergue the date, 1894.

Rev.—PRESENTED BY THE HONG KONG COMMUNITY (and in the centre) FOR SERVICES RENDERED DURING THE PLAGUE OF 1894.

Diameter, 1.4 inches; struck in silver and gold. This medal is by Allan Wyon, the obverse being from a design by Frank Bowcher. Illustrated in *The War Medal Record*, London, 1896, vol. i. Pl. i. No. 4.

F. PARKES WEBER.

(To be continued.)

IV.

NOTES ON SOME ROMAN IMPERIAL "MEDALLIONS" AND COINS: CLODIUS ALBINUS; DIOCLETIAN; CONSTANTINE THE GREAT; GRATIAN.

(See Plate I.)

A BRONZE "MEDALLION" OF CLODIUS ALBINUS.

ONLY two or three "medallions" of Clodius Albinus are known to exist, and as one of these, formerly in the collection of Consul Eduard F. Weber,¹ has recently come into my own possession, I am led, while submitting it to the Royal Numismatic Society, to add a short commentary.

The coin represents a variety of that figured in the third volume of Cohen.² The following is its description:—

Obv.—D CLODIVS SEPTIMIVS ALBINVS CAES. Bust to r., without wreath, wearing cuirass and paludamentum.

Rev.—FORT REDVCI COS II. Fortuna seated to l., holding cornucopiae and rudder resting on globe. Beneath her throne, a wheel.

Æ. 1·6 in. Wt. 68·40 grammes (1055·5 grs.).
[PL. I. 1.]

The parallel type of "medallion," reading FORTVNAE

¹ *Catalogue*, Munich, 1909, No. 1794.

² Ed. 2, p. 419, No. 39. The reverse there reads in full: FORTVNAE REDVCI with COS II in the exergue. But the coin referred to under No. 31, as in MM. Rollin's possession, may be the same as that described above.

in full on the reverse, judging from the weight of the specimen in the Imperial Cabinet at Vienna, is a piece of somewhat lower denomination. The weight of the coin in question is 61.7 grammes, which, as Dr. Kenner has pointed out,³ answers according to the average weight of the sesterces of Albinus, to fourteen *asses*. On the same reckoning, the present "medallion" is a piece of fifteen *asses*, such as were frequent in the immediately succeeding age.

There can be no doubt that these extraordinarily rare "medallions" of Clodius Albinus were struck in the period immediately succeeding his assumption of the title of Caesar on the nomination of Severus. They may indeed themselves be regarded as monuments of the treachery of Severus, who, by the conferment of the Imperial dignity and other honours heaped on Albinus, sought only to disarm the suspicion of his Western rival while he still had Pescennius Niger on his hands in the East.

Herodian tells us that he sent letters of flattering import to Albinus, requesting him to assist him in his old age to bear the burden of Empire by accepting Caesarean dignity. At the same time, to keep up the deception, Severus wrote to the Senate in a similar strain. Amongst the honours that he ordered them to confer, besides the setting up of statues, the historian expressly mentions the striking of coins in Albinus' name.⁴ In view of these august recommendations, the Senate, in 194 A.D., made Albinus Consul for the second time in association with Severus.

³ "Der römische Medaillon" (*Num. Zeitschr.*, xix., 1887, p. 111).

⁴ Herodian, lib. ii. c. 49.

The special injunction to the Senate to strike coins in Albinus' name naturally carried with it an issue of an honorary bronze coinage such as is illustrated by our medallions. There is every reason to believe that the actual occasion of this honorary issue would have been the election of Albinus as Consul for the second time—the title borne on the reverse inscription—at the beginning of the year 194 A.D.

Albinus was then in command of the Roman forces in Britain, and the figure of Fortuna Redux, constantly associated with a reference to his second consulship on coins of all metals and denominations, must be taken to have a very definite intention. It voices the hopes of the strong aristocratic and Senatorial following of the new Caesar to welcome him again in Rome.⁵ This was the last thing that Severus himself desired. As a matter of fact, Clodius Albinus, who had privately received pressing invitations from his Senatorial friends to return to the capital⁶ while Severus was still occupied in the East, did indeed recross the Channel, and advanced as far as Lyons at the head of his Britannic legions. There, seeing the contest inevitable, he took the irrevocable step of proclaiming himself Augustus. Meanwhile, Severus, having given a good account of Pescennius Niger, was able to concentrate his whole forces against his Western rival. After a severe and long-doubtful battle, Albinus was defeated and slain under the walls of Lyons, on February 19, 197 A.D.

⁵ It is to be noted that no bronze or Senatorial coins of Severus struck at this time bear the inscription FORTVNAE REDVCI; though, owing to his absence on his Eastern campaign against Pescennius Niger, the inscription would have been even more pertinent in his case.

⁶ Herodian, lib. iii. c. 16.

It is not, obviously, to this later period of Albinus' Imperial career that these "medallions" can be referred.

A DOUBLE QUINIO OR TEN-AUREUS PIECE OF DIOCLETIAN, STRUCK AT ALEXANDRIA FOR HIS DECENNALIA.

Among the most signal examples of the higher multiples of the Roman solidus hitherto known are two varieties of coins struck for Diocletian in Nicomedia and Alexandria. The coins in question represent double quinios, or pieces of ten aurei, and are referred to by Dr. Friedrich Kenner, in his epoch-making monograph on "The Roman Medallion."⁷ It is true that in his original publication Dr. Kenner was inclined to regard them as double quaternios, or pieces of eight.⁸ But further evidence, especially that supplied by the important find at Old Szöny (Brigetio),⁹ has clearly established the fact that they answer to the aurei of similar types, examples of which are known, having the approximate weight of five and a half grammes.

The first of the double quinios is in the British Museum;¹⁰ it is 33 millimetres in diameter, and weighs 53·5 grammes (830·5 grains). [Pl. I. 2.] It bears on the reverse the inscription IOVI CONSERVATORI, accompanied by a standing figure of Jupiter holding in his right hand a globe surmounted by Victory, and resting his left on

⁷ "Der römische Medaillon" (*Num. Zeitschr.*, 1887, pp. 1-173).

⁸ *Op. cit.*, pp. 18, 19.

⁹ Dr. Joseph Hampel, "Ein Münzfund aus Brigetio" (*Num. Zeitschr.*, 1891, pp. 85-88; F. Kenner, *op. cit.*, pp. 89-94, and *op. cit.*, 1894, pp. 1-4).

¹⁰ H. A. Grueber, *Roman Medallions in the British Museum*, pp. 79, 1, and Pl. lv. 1.

a sceptre. At his feet is an eagle, and in the exergue the Nicomedian mint-mark SMN.

A specimen of the other variety was published in the second edition of Cohen's work from the De Quelen Collection.¹¹ Its weight is there given as 53.59 grammes (839.0 grs.). I am now able to describe a variant example of the same type in my own collection.¹²

Obv.—IMP O C VAL DIOCLETIANVS P F AVG. Bare head of Diocletian to r.

Rev.—IOVI CONSERVATORI. Jupiter, naked to the loins, with drapery falling from his l. shoulder, seated on a throne and holding a thunderbolt in his r. hand, while his l. rests on a sceptre. At his feet an eagle with half expanded wings, holding a wreath in his beak. In ex. ALE

N. 1.35 in. Wt. 52.30 grammes (807.1 grs.).
[Pl. I. 3.]

This piece seems to be from the same obverse die as that reproduced by Cohen from the De Quelen Collection. The reverse, however, shows a variant type. The disposition of the letters is not the same, an interval being left, for instance, between the O and N of CONSERVATORI for the end of the thunderbolt. The design also differs in details, and shows a better balance. Thus the thunderbolt, instead of being held upright as on the other coin, slopes outwards, the drapery is more elegantly arranged, and the eagle's left wing is half open instead of closed.

¹¹ *Médailles Impériales* (Ed. 2), T. vi. p. 441, No. 264, and cut; cf. Kenner, *op. cit.*, p. 21.

¹² Formerly in the collection of the late Consul Eduard F. Weber. (Cf. *Catalogue*, Munich, 1909, No. 2453, and Pl. xlii. It is there described as "aus der Sammlung de Quelen, 1888," but it differs from that from the same collection reproduced by Cohen.)

The coin has been curiously battered in one or two places, the beginning of the inscription on the forehead of the Emperor on the obverse, and on the reverse the left thigh of Jupiter, having in this way suffered. But apart from this, the conservation of the types on both faces is magnificent, and the coin is exceptionally well struck. The style of the design, especially on the reverse, has, for the age to which it belongs, a quite uncommon merit, and excels that of any other die of Diocletian, or his colleagues with which I am acquainted. The minuteness of the engraving is also remarkable. It is possible thus to make out the thongs and knots of the sandals, and the curving stem and its excrescences that adorn the border of the throne. This might have been supposed to represent a vine, as on the ivory border of the throne of St. Maximian at Ravenna. But a close examination¹⁹ reveals the fact that several of the appendages are clearly acorns. We have here, then, an oak spray, a fitting attribute of the Lord of Dodona.

For the time, indeed, at which it was executed, the last decennium of the third century of our era, this coin must be regarded as a masterpiece of numismatic art.

The fact that the reverse of this piece was struck by a different die from that used for the piece described by Cohen, is of interest, as showing that there must have been a considerable mintage of these "double quinios," a fact confirmed by the existence of the parallel piece from the Nicomedian Mint. The occasion of this mintage has now been made clear by the discovery among the coins found at the Old Szöny (Brigetio) of the quinio,

¹⁹ The cross-line between the "cup" and stand, or acorn proper, is clearly visible.

or half of the present denomination, struck at Tarraco, exhibiting the same types on both sides, but with the reverse inscription, *CONSERVAT AVGG V ET IIII COS.*¹⁴ The fifth Consulate of Diocletian, here recorded, took place in 293, and Diocletian completed the first decennium of his reign on the 17th of September in that year. It is clear, therefore, as Dr. Kenner has pointed out, that the emission of these large gold pieces connects itself with the Emperor's Decennalia.

Two single types of the aureus are known answering to the same series, and with the same figure of Jupiter enthroned on the reverse.¹⁵ These are from the mints of Rome and Tarraco; and a specimen from the latter mint in the Imperial Cabinet at Vienna weighs 5.49 grammes.¹⁶ In the case of the single aureus the head of the Emperor is laureate, and the reverse inscription is *IOVI CONSERVATORI*.

A DOUBLE AUREUS OF CONSTANTINE, EXHIBITING THE CITY OF TRIER.

No apology is needed for calling the attention of the Society to the third example known of the double aureus, or binio, of Constantine the Great, struck at Trier, and exhibiting a view of the city walls and bridge over the Mosel. This interesting piece, of which the following is a full description, is said to have been

¹⁴ F. Kenner, "Zweiter Nachtrag zu dem Münzenfunde von Brigetio" (*Num. Zeitschr.*, 1894, p. 1, and Taf. I. 1). The weight of this coin is 26.55 grammes.

¹⁵ Cohen, *Mét. Imp.* (Ed. 2), T. vi. p. 441, No. 265.

¹⁶ F. Kenner, *Num. Zeitschr.*, 1894, p. 3.

for over two centuries in the possession of a family at Toulouse:¹⁷ —

Obv.—IMP CONSTANTINVS P F AVG. Bust of Constantine to r., wearing radiate crown, cuirass, and paludamentum. The crown has seven spikes, five along the side of the head, and two in finer relief represented as in profile above the forehead and the back of the head. The upper edge of the cuirass is beaded, and there are three globules below it. The paludamentum is fastened by a round fibula with a jewelled border, and below this is a line of four dots.

Rev.—AVGG GLORIA. Walls and principal gate of Trier, showing statue of the Emperor above it. He wears a military cloak, and raises his r. hand, while holding a sceptre transversely in his l. The gate is flanked by towers,¹⁸ and five others are shown on the line of walls, which have a hexagonal plan; on either side are two seated captives in the attitude of grief. One wears a Phrygian cap, like Francia and Alamannia on other coins of Constantine. Beaded lines descending from their necks to the ground behind seem to represent chains. The gate is approached by a broad bridge having two flanking turrets at each end, and the current of the river is indicated below. Only two arches are shown on the coin, but this may be due to the necessary "shorthand" of numismatic engraving so visible in the case of the town plan. In ex., PTRE.

N. 1·05 in. Wt. 8·97 grammes¹⁹ (138·4 grs.).

[Pl. I. 4.]

A minute comparison between the present specimen of this type and that in the Cabinet of France leads to some curious results. It appears that although the

¹⁷ E. F. Weber, *Catalogue*, Munich, 1909, No. 2579. The coin is now in my own cabinet.

¹⁸ The pair of towers that flank the gate show eight stages; the two beyond, nine. It is unsafe, however, to make too much of these details.

¹⁹ The weight of the Paris example is 138·1 grs. (8·95 grms.); of that of the Berlin Cabinet, 136·5 grs. (8·85 grms.).

base of the representation is in both cases the same, the dies from which the two coins were struck differ both on the obverse and reverse as to certain details of the engraving [Pl. I. 5].

The obverse of the present coin depicts a radiate diadem with seven spikes, the foremost and hindmost of these delineated more finely, as being shown in profile. But on the Paris specimen, at first sight, only the fine rays at the side of the head are visible. A close examination, indeed, shows the faint trace of the spike in front as if from a cast, and by the aid of my own piece still fainter traces of the spike behind can be made out.

In other words, the engraver of these pieces worked up two different dies, each being a cast of the same model. In one case two details were neglected, and only traces of them appear as shown on the matrix as originally cast before engraving. In the other case, illustrated by my specimen, the die-sinker had recognized these details, and duly worked over that part of the cast.

The edge of the cuirass shows a parallel instance of the same negligence on the part of the engraver of the die of the Paris coin. It is rendered as a plain line, whereas on my example the edge is beaded and reproduces what we may believe to be the decorative intention of the original modeller. So, too, the fibula on my own piece appears with a jewelled circle, while on the other it is a plain ring, and a dotted ornament below is also omitted. Neither has the engraver of the Paris coin taken the trouble to work over the upper part of the drapery of the bust.

The reverses show similar discrepancies. The more finely executed engraving on the present piece has a

much more decorative rendering of the upper angles of the town walls. We see on it a rounded moulding between two beaded lines, while on the Paris coin there is merely a flat space between two plain lines. The same absence of the beading is observable in other details of the latter, and there is no attempt to indicate, as on the present piece, the masonry of the bridge.

It is nevertheless quite clear, in spite of these divergences on the engraver's part, that both dies were cast from the same original model. These phenomena may be found to have an interesting bearing of a more general character on certain aspects of the ancient moneyer's art.

In his excellent *Numismatique Constantinienne*, M. Jules Maurice, from the exergual inscription of this piece, PTRE, assigns it to the eighth issue of Constantine.²⁰ This issue he places between the month of September, 326, which followed the death of Crispus and Fausta, and the 11th of May, 330, the date of the solemn inauguration of Constantinople. It further appears that, as Constantine came to Trier at the close of 328, and stayed some time there during the early part of 329, the issue of this commemorative coin must probably be referred to the latter date.²¹ The inscription AVGG GLORIA is in this case, as M. Maurice points out,²² remarkable, since for at least two years Constantine had been sole Augustus. The other Augustus, Licinius, had been executed by him in 324.

²⁰ *Op. cit.*, vol. i. p. 474 *seqq.*

²¹ *Op. cit.*, i. p. 477.

²² *Op. cit.*, i. pp. 476, 477, "Il faut donc admettre que les formules 'Providentiae Augg,' 'Gloria Augg,' furent conservées un certain temps comme des formules banales, par habitude."

AN AUREUS OF GRATIAN, COMMEMORATING THE
ELEVATION OF VALENTINIAN II.

On the sudden death of Valentinian I at Brigetio (Szöny) on the Danube, his chief counsellors, who seem to have feared a movement among the Gallic troops, thought it politic at once to proclaim his infant son, of the same name. Six days after his father's death, Valentinian II, at that time a boy of four, was made full Augustus by the troops at Aquincum (Ofen). His half-brother Gratian, then at Trier, and his uncle Valens, who had the Eastern Provinces, did not hesitate to recognize this infant colleague.²³ It seems possible that the elevation of the young prince was partly due to the fact that his mother, Justina, had been once the wife of Magnentius,²⁴ whose partisans had at one time been very powerful in the West. Justina had been conducted by the officers to Aquincum, together with her child, from the Imperial Villa of Murocincta, and no doubt helped subsequently to look after her son's interests in the provinces allotted to him.

It is a picturesque historical episode, and it is therefore interesting to notice that this elevation of the infant Valentinian II is commemorated by two aureus types of Valens and Gratian, issued by the mint of Antioch, where Valens was at this time resident.

One of these, a coin of Valens in the Cabinet of

²³ Ammianus Marcellinus, l. xxx. 10; cf. Socrat., iv. 31; Zosim., iv. 19, &c.

²⁴ Cf. Zosimus, *loc. cit.*, οἱ ταξίαρχοι Μεροβαύδης καὶ Ἐκίτιος . . . παῖδα Οὐαλεντινιανοῦ νέον ἐκ γαμετῆς αὐτῶ τεχθέντα τῆς πρότερον Μαγνητίᾳ συνοικησάσης.

France, has been described by Cohen.²⁵ The aureus of Gratian cannot be said to have been as yet published.²⁶

The following is the description of this piece:—

Obv.—DN GRATIANVS P F AVG. Diademed bust of Gratian to r., wearing cuirass and paludamentum.

Rev.—SPES R P. Gratian and Valens on either side enthroned in imperial costume, each holding a globe and sceptre, with a nimbus round his head. Between them is the standing figure of the little Valentinian II, apparently clad in the paludamentum or imperial mantle. Above his head is an oval shield with the inscription, VOT V MVL X. In ex., ANTT+.

N. 0·85 in. Wt. 4·42 grammes (68·2 grs.).
[Pl. I. 6.]

The legend on the reverse of this coin, SPES R[EI]-P[VBLICAE], is specially appropriate to its subject as commemorating the proclamation of the infant "Hope of the Commonwealth." On the other hand, the inscription on the shield, VOT[IS] V MVL[TIS] X, should, in the literal acceptance of the words, imply that when this coin was struck the young Emperor had already reigned five years, and that Vota for his Decennalia were already due. That this is an impossible interpretation, however, is sufficiently shown by the existence of the parallel type struck in the name of Valens. But Valens himself was slain by the Goths in the

²⁵ *Méd. Imp.* (Ed. 1), vi. p. 415, No. 41, and Pl. xiii.; *ib.* (Ed. 2), p. 110, No. 47.

²⁶ This coin passed into my collection from that of the late Consul Eduard F. Weber. It is included in the Weber Catalogue under No. 2754, but neither the essential features of the type nor the inscription are rightly reproduced. The figure between the seated Emperors is described as "Victoria(?)," and the inscription on the shield is given as "VOT X MVL T V." In the exergue ANTT+ appears in place of ANTT+.

crushing overthrow received by him at Adrianople on the 9th of August, 378, when Valentinian II had only reigned two years and eight months. As a matter of fact, the anticipation of the Quinquennial and Decennial Vota for fiscal or political ends was a most usual practice during the fourth century. Valens himself, who only reigned fourteen years, claimed his Vicennalia Vota with all the customary contributions, and certain coins of his bear the legend VOT[IS] XX MVL[TIS] XXX.²⁷

There can, in short, be no reasonable doubt that the Quinquennial Vota registered on the present coins were of an anticipatory nature, and that the occasion of their issue was the elevation of the boy-Emperor by the soldiery at Aquincum. They would thus have been issued by the Antioch Mint under the immediate superintendence of Valens, early in the year 376, as a kind of official manifesto on behalf of that Emperor and Gratian of their recognition of Valentinian II as a colleague.

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²⁷ Cohen, *Médailles Impériales* (Ed. 2), T. viii. p. 118, Nos. 101, 102.

NOTE ON THE MEDIAEVAL MEDALS OF
CONSTANTINE AND HERACLIUS.

THE place in the history of art of the remarkable medals of Constantine and Heraclius has been more or less definitely fixed since the discovery was made by M. Guiffrey that Jean, duc de Berry, possessed similar pieces, one having been purchased as early as 1402, and both being included in the inventories of his collection, made in 1414 and 1416.¹ In an illuminating essay on the beginnings of the Renaissance Medal,² Professor

¹ J. Guiffrey, "Médailles de Constantin et d'Héraclius acquises par Jean, duc de Berry, en 1402," in *Rev. Num.*, 1890, pp. 87-116.

² J. von Schlosser, "Die ältesten Medaillen und die Antike," in *Jahrbuch der kunsthist. Sammlungen des Allerhöchsten Kaiserhauses*, xviii. (1897), pp. 65 ff. M. Froehner, in the *Annuaire de la Société Française de Numismatique*, xiv. (1890), pp. 472 ff., has thrown some light on the symbolism of the Heraclius medal; but his view that the medals are of German origin, and that M. Guiffrey's discovery is without influence on the history of the Italian Renaissance, is, to put the fact gently, not borne out by more recent criticism. Cp. the remarks of M. Blanchet in the *Annuaire*, 1891, pp. 88-86. Dr. J. Simonis also has a long article on the subject (*Rev. Belge de Numismatique*, 1901, pp. 68-109, with illustrations); and M. Ernest Babelon has a section on the subject in André Michel's *Histoire de l'Art* (Tome III. ii. pp. 906-913). M. Babelon pronounces Dr. von Schlosser's attribution of the medals to a Flemish-Burgundian origin to be *sans fondement*,—a criticism which may be more justly applied to the theory of an Italian origin, until its supporters have shown that such figures (either of human beings or horses) could have been produced in Italy in the fourteenth or early fifteenth century. In Flanders or Northern France, on the other hand, as every student of the transitional art of that district will admit, they are quite in place.

Julius von Schlosser has dealt very thoroughly with the problems presented by these pieces, although he has left one or two small matters still open to discussion. It is doubtless now generally acknowledged that they are, as he maintains, the product of some of those artists of the Flemish-Burgundian school, whose extraordinary merits have only of late years begun to win the recognition which they deserve. Comparison with the MSS. of the end of the fourteenth and beginning of the fifteenth centuries bears out the attribution of the pieces to that period, and to Flanders or Northern France. The object of this note is not to deal with any of the larger matters involved, but merely to consider one or two small questions which have hitherto remained obscure. For illustrations, the plates illustrating both the articles named should be consulted, since they supplement each other.

First, on some specimens³ of the Heraclius medal, behind the Emperor's head, occurs a mysterious word which has been read ΑΠΟΛΙΝΙΣ.⁴ That is neither Greek, which would require ΑΠΟΛΛΩΝΟΣ, nor Latin, which would be APOLLINIS. No wonder it has puzzled the critics, since the supposed Ν is nothing but a second Π. In the inscriptions on this medal the Π is made in a peculiar way, with a sort of broken back, and a slight defect seems to make this break continue downwards in a slanting direction, like the transverse stroke of Ν.⁵

³ *E.g. Rev. Num.*, 1890, pl. v., and a similar specimen in the British Museum.

⁴ For M. Froehner's reading ΑΠΟΛΗΨΙΣ there is no shadow of justification.

⁵ The illustration in M. Babelon's article (*op. cit.*, p. 910) makes the letter appear very much like Ν. On the piece in the British Museum the flaw has not proceeded so far.

Now, the Greek inscriptions on this medal are written more or less phonetically: we have, for instance, ΥΨΙΣΤΙC for ΥΨΙΣΤΟΙC, and ΠΙΛΑC for ΠΥΛΑC. ΑΠΟΛΙΠΙC is merely ΑΠΟΛΕΙΠΕΙC. What does this mean?

As every one who has looked at these medals knows, they are packed with symbolism. Heraclius here figures as the Emperor who recovered the Holy Cross from the heathen Persians, and brought it back to Christendom. His triumphal entry is represented on the reverse of the medal. On the obverse is his bust, like that of some ancient prophet, with long flowing beard; below the bust is the sickle of the moon, not crescent, as we shall see, but waning; the Emperor looks upwards to the heavens, from which rays fall upon his face. In the field, in front of his head, are these words (adapted from a Psalm,⁶ which—it is significant—is still sung at the Votive Mass of the Holy Cross): ILLVMINA VULTVM TVVM DEVS. On the decrecent moon below his bust this modified quotation is continued in the words, SVPER TENEBRAS NOSTRAS.⁷ Then follows the word MILITABOR (a mistake for MILITABO), and, on the under side of the moon, IN GENTIBVS. This phrase, "militabo in gentibus,"—"I will make war among the heathen,"—does not occur in the Vulgate; and I have failed to identify its source. The words from "super" to "gentibus" have generally been taken to be one sentence; but no one has attempted to construe it. Divided as above, it makes sense. Heraclius says, "O God, cause Thy face to shine upon our darkness; [and] I will make war among the

⁶ Ps. lxxvi. 1 in the Vulgate: "Illuminet vultum suum super nos."

⁷ The British Museum specimen reads TENEBAS; cp. Simonis, *op. cit.*, p. 105.

heathen." In all this we have a contrast between the light of Christianity and the darkness of heathenism. Even the fact that the two words IN GENTIBVS are placed on the under side of the decrescent moon has its significance; they are hardly noticeable in the shadow, for do they not represent the nations who sit in darkness? This same idea of shedding light upon darkness perhaps accounts for the lamps which are represented on the reverse.

Now, the word ἀπολείπεις, placed as it is just at the tip of one of the horns of the moon, can only have its proper technical sense: it means simply, "thou art waning." The moon⁸ represents the light of heathenism, just as the sun's rays, descending on the countenance of Heraclius, represent the light of Christianity. So that we have here a contrast analogous to that which von Schlosser finds—and who can doubt that he is right?—in the two figures, of Christianity and Paganism, the one gazing at the Cross, the other turning away from it, on the reverse of the medal of Constantine.

One or two curious points are raised by the wording of the Greek inscription on the reverse of this medal. Ignoring the more obvious blunders, chiefly phonetic, we read: Δόξα ἐν ὑψίστοις Χριστῷ τῷ Θεῷ ὅτι διέρρηξε σιδηρᾶς πύλας καὶ ἠλευθέρωσε ✠ ἁγίαν βασι(λεῦντος) Ἡρακλε(ίου). In the revised version of the medal,⁹ which was issued some time in the fifteenth century, probably in Italy, with the help of some scholar who polished up the Greek, omitted that puzzling word

⁸ The crescent, as M. Froehner reminds us, was the emblem of the Persian kings.

⁹ Such as the specimen illustrated by von Schlosser, Pl. xxiii., or the lead specimen in the Victoria and Albert Museum.

ἀπολίπις, and generally modified the lettering so as to suit the fashion of the humanists of the time, ἀγίαν has been corrected to ἄγιον. The scholar knew that the Greek word for "cross" is masculine, whereas the man who made the earlier medal was probably thinking more of the Latin word *crux*, and therefore wrote ἀγίαν.

But what are the "gates of iron"?¹⁰ It may be that the scribe had in mind a passage in Ps. cvii. (cvi.) 16: *Συνέτριψε πύλας χαλκᾶς καὶ μοχλοῦς σιδηροῦς συνέθλασεν*: "Contrivit portas aereas, et vectes ferreos confregit." If so, he has merely transferred the adjective from the "bars" to the "gates." But there is another and more probable source. The clerk who made the Duke's inventory translates *σιδηρᾶς πύλας* by "portes d'enfer." At first sight it would seem that this was due simply to clerical error; he may have converted "portes de fer," which was read out to him, into "portes d'enfer;" or, if he was copying, it was easy to read "de fer" as "d'enfer." What printer would not do the same now, if it occurred to him? As a matter of fact, however, we have the excellent authority of Homer¹¹ for saying that the gates of Hell, or rather of the place below it, were of iron:—

Ἡ μιν ἐλὼν ῥίψω ἐς Τάρταρον ἠερόεντα,
 Τῆλε μάλ', ἧχι βάθειστον ἐπὶ χθονός ἐστι βέρεθρον,
 Ἐνθα σιδηραῖά τε πύλαι καὶ χάλκεος σόδος,
 Τόσσον ἔνειρθ' αἰδέω, ὅσον οὐρανός ἐστ' ἀπὸ γαίης.

I see no reason for doubting that the man who drew up the inscription for this medal, being familiar with Greek, should use a Homeric phrase.¹² We must

¹⁰ M. Froehner says the "Gates of Iron" are the Cilician Gates; but he gives no authority for his statement.

¹¹ *Iliad*, θ. 13 ff.

¹² M. Blanchet (*loc. cit.*) has noticed a trace of antique influence in

remember that the phrase "Gates of Hell" or "Gates of Death" is common to the Bible and to Greek literature. And the idea is eminently appropriate here, in connexion with the deliverance of the symbol of Christianity from the powers of darkness.

Another puzzle is concerned with the medal of Constantine, and can be dismissed very briefly, although it is tempting to linger over the fascinating symbolism of the reverse type. Some specimens of this medal bear the Arabic numerals 234 on the obverse, and 235 on the reverse. I think there can be no doubt that these are two of a set of running numbers placed on his works by the silversmith who cast and chased the two sides of the medal.¹³ These medals, as existing specimens prove, were often made as shells, each side being cast separately, and obverse and reverse afterwards soldered together. When gold or silver was used, the object of this process was to save metal. Such a shell was the origin of the various specimens numbered 234-5 which have come down to us. Incidentally it may be noted that the form of 5 which is used is late; even in Italy it could hardly occur earlier than the last quarter of the fifteenth century, or the first quarter of the sixteenth. The form of 4 is possible in Italy as early as the beginning of the fifteenth century,

the little Hercules strangling the serpents which forms part of the decoration of the fountain on the Constantine medal. The plant, out of which the cross rises, is also a development of the pine-cone, which in antiquity was generally associated with fountains (see my *Pisanello*, p. 100, note). And the figure of Constantine on horseback is lineally descended from the riding Emperors on Roman medallions, such as the no longer existing medallion of Justinian (Wroth, *B. M. Catal. Imperial Byzantine Coins*, vol. i. frontispiece).

¹³ M. Babelon, in his article, which I had not seen when the above was written, also describes these figures as "un numéro d'ordre se référant à la fabrication de la médaille" (*op. cit.*, p. 909).

but in the North it must date from the last quarter of the fifteenth century at the earliest. We thus have a date, about 1500, for the origin of the numbered edition of the Constantine medal, whether we suppose that it was made in Flanders (as is most probable) or in Italy.¹⁴

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¹⁴ An advanced form of the numeral, like the modern form, is found in the date 1445 on the tower of Heathfield Church, Sussex. It is an isolated instance, the earlier form prevailing everywhere else throughout the fifteenth century in this country; and it would be interesting to know whether the inscription is really contemporary. Then there is a 5 resembling the modern form with the top bar removed, occurring among a set of thirteenth or early fourteenth century numerals carved on the figures of the Resurrection series on the façade of Wells Cathedral. Here one would like to have confirmation of the accuracy of the reproductions on which our knowledge of this set of figures depends (*Proc. Somersetsh. Archaeol. and Nat. Hist. Soc.*, xxxiv., 1888, p. 62). The figure in question may be a mutilated 3 or 6. In MSS. the late form of 5 does not seem to occur at all until the fifteenth century, and then only in a somewhat undeveloped form, and with extreme rarity. Coins of Brabant and Flanders show the S-shaped form (sometimes angular, like an early Greek sigma) as early as 1475; but as no coins of the Low Countries are known to me with dates in Arabic numerals earlier than 1474, I cannot say whether this S-shaped form was then used for the first time. For the whole subject I may refer to a paper on Arabic numerals in the forthcoming volume of *Archaeologia*.

VI.

THE COINAGE OF THE REIGN OF EDWARD IV.

(Continued from Vol. IX. p. 219.)

(See Plates II.-IV.)

PERIOD OF THE RESTORATION OF HENRY VI: OCTOBER,
1470, TO APRIL, 1471.

PERHAPS the most dramatic episode of the reign under consideration was the suddenly enforced flight of Edward from the country, and the temporary restoration of Henry VI after an imprisonment of five years in the Tower.

Within a few days of the departure of Edward, the Earl of Warwick, after a victorious progress from Dartmouth (where after recent exile he had just landed) triumphantly entered London. The prisoner of the Tower was immediately taken from thence to the Bishop's Palace, and from there was conducted in state, with the crown on his head, to the Cathedral of St. Paul, where he was solemnly enthroned. Weak from the first, the unfortunate Henry VI. was now further enfeebled and broken by captivity, and we are told that "he sat on his throne limp and helpless as a sack of wool," "a mere pretence and shadow of a king." Warwick was now completely master of the kingdom, and could do as he pleased

with the helpless king. He declared himself Lieutenant of the Realm, and making his brother George Nevill, the Archbishop of York, once more Chancellor, the kingdom was practically governed by them for the next seven months. From the evidence afforded by the number of coins undoubtedly attributable to the period of the restoration of Henry VI which have come down to us, we may be certain that there was no delay in striking money in the name of the restored king. In the Patent Roll Calendar, 1467-77, p. 227, under the date October 23rd, 1470 (49 Henry VI) is a grant during pleasure to the king's knight Richard Tunstall, King's Chamberlain, of the office of master and worker of the king's mints within the Tower of London, the realm of England, and the town of Calais, with all fees and profits belonging to the office according to the terms of certain indentures to be made, with power to hold an exchange common and open in the City of London. It is, however, strange that the only known indenture for the purpose is that made with Sir Richard Tunstall, dated March 7th, 1471, or only about a month previous to the return of Edward IV and the murder of Henry VI. As is remarked by Mr. A. E. Packe (*Num. Chron.*, Third Series, Vol. IX. p. 353), there must have been a previous indenture now lost, or possibly the one last made with Edward IV was allowed to run out, although the king's name was changed on the money. There is also *implied* evidence that the mints were at work previous to the last indenture with Tunstall, in a grant dated February 24th, to John Langstrother, Prior of St. John's, and John Delves, Esq., of the office of "Custos Cambii et Monetæ infra Turrim Londoniar," and "Custodiam Cunagiorum auri et argenti infra regnum

nostrum Angliae et Villam nostram Calesiae" (*Num. Chron.*, Third Series, Vol. IX. p. 355).

In my previous paper (see Vol. ix. p. 179) I gave reasons for assuming that the ryal and its parts were being coined until very nearly, if not quite, the time of the restoration, and that the cross fitchée pierced was the mint-mark then in general use at the Tower Mint. The indenture with Sir Richard Tunstall authorized the coinage of nobles to weigh 120 grains; also half and quarter-nobles, together with angels, to weigh 80 grains, and angelets. The terms of this indenture were the same as that of the fifth year of Edward IV, thus implying that the coinage of ryals (or nobles of equal value) was not considered to have been finally discontinued, although there can now be little doubt that none were actually coined by virtue of the indenture. The quarter-noble in the British Museum formerly ascribed to this coinage, is now without question given to the heavy coinage of Henry IV. It is of importance to note the continuance of the coinage of ryals up to the period of the restoration, and the evident contemplation of their further issue, as it has considerable bearing upon the view I have put forward as to the date of the general coinage of angels.

Although authorized in 1465, these new gold coins were evidently not issued in any quantity previous to the restoration, as, with the exception of the extremely rare specimens that I have quoted in my last paper, none are found with any of the mint-marks or other characteristics that are met with on the ryals or other coins contemporary with them. As previously suggested, the ryals were probably found to be too specially identified with Edward, while the want of a noble corresponding with the reduced weight of the silver coins was beginning to

be felt. Perhaps for both these causes the angel nobles, hitherto issued only in a somewhat tentative manner, were found to be a ready and convenient means of popularizing and identifying with the house of Lancaster a coin which, although authorized by Edward IV, had so far been so little used. The opportunity was the more readily afforded by the fact that the ryals so specially identified with Edward IV were evidently going out of general currency, as those with the cross fitchée mint-mark are much less common than those bearing the previous mint-marks. Although they were issued again in succeeding reigns, it was in such small numbers (judging by their great rarity) that they evidently never again came into very general use, the angels completely supplanting them for a considerable time. Certain angels of Henry VI, which are evidently the earliest issued after his restoration, have characteristics which appear to connect them very closely with the rare early angels of Edward IV, and thus to fix the position of both in the sequence, practically without a doubt. The angel to which I specially refer is No. 1 in the list of coins at the end of this paper (see **Pl. II. 1**). It is characterized by a neatness and fineness of work together with a fulness of size not found on the more common angels of Henry VI and the later ones of Edward IV. The coin illustrated is in my own collection, but another very fine specimen was in the Montagu Collection, lot 526, apparently (judging from the plate) from the same dies as mine.

In addition to the substitution of Henry's emblem or badge of the fleur-de-lys together with the initial letter of his name for Edward's badges of the rose and sun, the unusually full reading of $\eta\epsilon\text{NRICVS}$ and $\text{FR}\text{AN}\text{CIAE}$

would appear to have been designedly employed, to recall not only the name of Henry, but the glories still unforgettably associated with it. Although very few of these earliest angels would seem to have been issued, others of rather coarser work, with larger lettering, must have been without delay struck in considerable quantities, as even at the present day they are fairly numerous, especially considering the short period during which they must have been issued. On these more ordinary angels the head and wings of St. Michael encroach more upon the outer circle than on the first variety, partly owing to the figure being larger, and partly owing to the smaller spread of the coin. The various readings of the king's name on the ordinary angels are $\eta\epsilon\text{N}\text{R}\text{I}\text{C}\text{V}\text{S}$, $\eta\epsilon\text{N}\text{R}\text{I}\text{C}\text{V}$, and $\eta\epsilon\text{N}\text{R}\text{I}\text{C}$, but $\text{FR}\text{A}\text{N}\text{C}\text{I}\text{A}$ only occurs on the first variety with the small neat lettering. It is curious that the reading $\eta\epsilon\text{N}\text{R}\text{I}\text{C}\text{V}$, which is the most usual one on the silver coins, was unknown to Kenyon for the angels of the London Mint, and although I have two with this reading in my collection, they are the only ones that I know of. Half-angels were also now coined for probably the first time, and although of the highest rarity, several are known, two being in the British Museum. Angels were also coined at the only two regal provincial mints that were at work when Henry VI was restored, viz. Bristol and York. The latter mint has not so far been recognized as issuing gold coins at this period, but documentary evidence is now available proving that *gold* as well as silver was coined at York (see below, p. 131). In *Num. Chron.*, Third Series, Vol. IX. p. 353, Mr. A. E. Packe gives fairly conclusive reasons for believing that it was, and that the angels and half-angels issued there are some very rare ones distinguished

by the lys mint-mark so identified with the York Mint at this period.

In common with others, I have been considerably puzzled to fix upon the mint-marks in use at the time of Edward's flight, but I venture to think that I am not far wrong in deciding upon (for the London Mint) the pierced cross fitchée of what I termed in my last paper the second variety. In this the tail of the cross always extends over and beyond the inner beaded circle of the legend. Now, it will be readily observed, on examining the coins of the restoration period, that on many of them, if not the greater number, the mint-mark on one side at least, is the same cross fitchée pierced, but with the tail cut short so as to be the same length as the other limbs, and not to extend beyond the inner beaded circle. At the restoration the chief new mint-marks adopted were a plain cross (pierced or unpierced) and a rather large cross pattée, the latter of which is *never* found on any coin of Edward IV. The plain cross pierced is the one most commonly used on the London coins, and I believe that the shortened cross fitchée was largely made to do duty for it in order to utilize the punches in hand. My only doubt has been as to whether this alteration *may* not have been made just before the restoration, as, of course, we *have* coins of Edward IV with this short form of the cross fitchée pierced. I believe, however, that these are post-restoration coins, although, without anticipating, I cannot now give my full reasons for thinking so. The large slender cross pattée is the most generally used mint-mark that is found exclusively on the coins of the restoration, and very rarely we find the lys, similar to that on the York coins, used on those of London and Bristol.

To follow the principle of my last paper, it may now be well to treat rather more fully of the coins under the heading of the several mints.

THE LONDON MINT.

Nobles and their parts of the same weight as Edward's ryals, although apparently contemplated, never appear to have been issued, but in their stead angels were struck in considerable quantities. Many dies must have been in use, as there are quite a large number of varieties of a more or less important nature issued from the London Mint. The first variety which I have previously described, and to which I attach so much importance, is seldom met with, but what appears to be the next variety (Pl. II. 2) (if all were not contemporaneous) still reads HARRICVS , but the French title is shortened to FRANC , and the mint-mark of the pierced cross is introduced on the obverse as well as on the reverse, usually at the end of the legend. On this and the succeeding varieties of the angel, the figure of St. Michael, as I have said, is larger, and the nimbus extends almost, if not quite, to the outer circle of the coin. The dragon is also larger and the tail is thicker. On the reverse of this variety the top-castle of the ship is surmounted by a plain cross instead of a floriated one.¹ The next variety to note (No. 3) is one with the obverse reading HARRICV DEI GR , &c., and a noticeable feature is the large cross in the centre of the archangel's nimbus [Pl. II. 3]. This obverse reading is unnoted by Kenyon and

¹ One specimen which I have seen of this variety has no mint-mark either on the obverse or reverse, and reads DEI .

other writers. The mint-mark is the pierced cross at the beginning of the legend. The reverse legend is also exceptional in the spelling of GRVQA , which on most other London angels reads curiously GRVSA , a peculiarity which it is important to note. There is no mint-mark on the reverse of this coin. Another angel in my collection, with the same unusual obverse reading (but from a different die), has the reverse from the same die as No. 2.

Variety No. 4 reads $\eta\text{ARRIQ DI GR}\pi$, &c., always (like the last) ending $\text{FR}\pi\text{QA}$. The mint-mark is usually on the reverse only, and is either the cross pattée or the plain pierced cross [Pl. II. 4]. I believe the foregoing are the only distinct varieties of the London angel, although no doubt there may be slight varieties of abbreviation of the reverse legend and the position of the mint-mark. In accordance with my assumption that angels were first coined in any quantity at the restoration, the first half-angels or angelets struck are the exceedingly rare ones issued in the name of Henry VI, as none are known corresponding with the pre-restoration angels of Edward IV. The obverse type of these half-angels is a reduced copy of the angels with the legend slightly abbreviated. The design of the reverse is also the same, but the legend is, $\text{O GRVX}\ \pi\text{V}\eta\ \text{SP}\eta\text{S}\ \text{VRIQA}\pi$, the first line of a verse in the hymn "Vexilla Regis," from the Breviary Office for Palm Sunday and Good Friday. On the specimen found in Haverfordwest there is a trefoil in the field to the right of the shield, but not on that in the British Museum from St. Albans.

In silver every denomination is now known from the groat to the farthing, of the London Mint, although, until quite recent years, the penny, halfpenny, and

farthing had not been identified. Groats are comparatively numerous when we consider the limited period of their issue, but half-groats are very rare, and the smaller pieces extremely so. All are so exactly similar to some coins of Edward IV in every detail save the name, that, without a close examination, they would escape notice amongst a number of coins of the latter. This close resemblance, however, makes practically unquestionable the position in the sequence of certain coins of Edward which, I think, have not hitherto been quite correctly located. Groats, being so much more numerous than smaller pieces, afford more varieties of detail. The mint-marks found upon them are the cross pattée (sometimes almost resembling a Maltese cross), the short cross fitchée pierced, the plain cross pierced or unpierced, and the fleur-de-lys. The first is less common than the two other forms of cross, and is usually only on one side of the coin. Its occurrence on both sides is exceptional. The fleur-de-lys is a very rare mint-mark on the London groats, and is only found on either the obverse or reverse (usually the latter), with one of the cross mint-marks, on the other side. The most usual reading is HERRICV , but a good proportion read HERRIC , although Mr. Neck was the first to note the latter variety. The stops used on the groat are sometimes trefoils and sometimes saltires, usually the latter; there are also several slight varieties of the king's bust. Half-groats are extremely rare, and, when Hawkins wrote, the one which he illustrates from the collection of the late Rev. E. J. Shepherd was believed to be almost the only one known. Others have, however, been since discovered, but the varieties are slight. The mint-mark is always the cross pierced, on the obverse only or on both sides. The only reading so

far published is ΗΕΩΡΙΩΥ' ΔΙ ΟΡΑ ΡΕΛΧ ΠΩΕΙ. S FR, but I have one in my collection weighing 22 grains which reads ΗΕΩΡΙΩ and FRΠ, and which has the mint-mark on both sides. At present this coin is, I believe, unique, and is interesting as corresponding with the groats having the same reading of the king's name. Pennies were unknown, even when Mr. Neck wrote (*Num. Chron.*, New Series, Vol. XI. p. 151), and are not mentioned in the revised edition of Hawkins. A specimen is, however, described in the catalogue of the Rev. E. J. Shepherd's Collection, lot 171, and the same coin is again found in the Catalogue of the Montagu Collection, lot 566. It had previously been illustrated in connexion with a paper by Mr. L. A. Lawrence (*Num. Chron.*, Third Series, Vol. XI. Pl. vii. 21). In the Shepherd Catalogue the mint-mark is described as a pierced cross, but the Montagu description is a lys. The former is probably correct, judging by the illustration, which, owing to the condition of the coin, shows the mint-mark very indistinctly.

I myself have another and finer specimen [Pl. III. 3] which shows the cross mint-mark quite distinctly. Both read ΗΕΩΡΙΩΥ, but in other respects exactly resemble certain pennies of Edward IV. A third specimen has recently been discovered, and is now in the collection of Mr. H. B. Earle Fox. It is considerably clipped, but the name reads distinctly as on the other two. A very fine specimen of the halfpenny weighing 6 grains passed through the Shepherd and Montagu Collections, and was described as "probably unique." It is now in the British Museum. The mint-mark is a pierced cross, and the reading is ΗΕΩΡΙΩΥ ΔΙ ΟΡΑ, &c. [Pl. III. 4]. Other specimens are now known, although

they are extremely rare. I have two (from different dies) in my collection, and I have seen another. All read the same, but there are two varieties of bust, one having a taller crown and longer neck than the other. On one variety the pellets on the reverse are united as trefoils, on the other they are quite separate. I have in my cabinet a so-far unique specimen of the farthing weighing 4 grains and reading $\text{HERRIC DI GR}\pi$ ($\text{R}\pi$) [Pl. III. 5]. This coin was formerly in the Lawrence Collection, where it was ascribed to the light coinage of Henry VI. For a time I doubted the correctness of this attribution, owing to the close resemblance of the bust to that on the early farthings of Henry VI, or even of Henry V, and I endeavoured to connect the $\text{DI GR}\pi$ legend with certain early pennies having the same legend. These, however, would, I now feel, be too early, and also there are no half-pennies with the $\text{DI GR}\pi$ legend earlier than those of the light coinage of Henry VI. I therefore no longer feel that there can be any doubt as to the proper attribution of this farthing. The resemblance to the early Henry VI farthing as regards the bust may probably be accounted for by the possible use of the same punches for the dies. The $\text{DI GR}\pi$ legend appears to leave no alternative for the attribution of this farthing to the 1470 restoration period. It is at the same time somewhat strange that we should have a farthing of this coinage, when the existence of a light farthing of Edward IV is very doubtful.

THE BRISTOL MINT.

It is a curious circumstance that, although in the first year of the reign of Henry VI authority was given to establish a mint at Bristol, no money should have been

actually coined there in his name until forty-eight years afterwards, and then under strangely altered conditions. In 1470 the Bristol Mint had already been for about five years striking money of both gold and silver in considerable quantities in the name of Edward IV, and was still actively at work, although—with the exception of York and Canterbury, and perhaps Durham—the other provincial royal mints appear to have been closed some time previously. With the advent of the restoration no cessation of work would seem to have occurred at the Bristol Mint although no doubt it was, even previous to this period, less active than it had been in the full tide of the great recoinage of 1465, and after. As at the London Mint, angels now took the place of rials for the gold coinage, and, rare as they are, several varieties are to be found. They afford grounds, I think, for a strong presumption that the dies were not, as formerly, all sent from London, but that some at least were made on the spot, perhaps by workmen trained at the Tower Mint, with punches sent from London,² as the execution is mostly equally good. It might also have been that, with the cessation of work at other mints, Bristol and York afforded employment for die-sinkers no longer required in London or elsewhere. The Bristol angels read *hÆRRICVS* or *hÆRRICV*, and all those that I can trace with the latter reading of the name have the obverse legend ending *DRS*, a peculiarity found on none of the, far more numerous, London angels of Henry VI. On the reverse also of both varieties trefoils are mostly found in the

² Mr. H. B. Earle Fox has recently shown the great probability that punches were made in large numbers from the same matrices in London, and sent to provincial mints for the manufacture of dies locally.

field on either side of the shield, another feature absent in the London pieces. Now, both these peculiarities occur on the later variety of the pre-restoration angel of Edward IV, suggesting that these were copied more independently by Bristol workmen. It seems very unlikely that if all the dies were made in London only those for Bristol should have the Irish title indicated. Again, No. 3 in my list, of which several specimens are known (one or two being from the St. Alban's find), is of distinctly rougher workmanship than any of the London angels. Apart from the foregoing variations from the latter, the only difference is the B in the waves under the ship for Bristol. No half-angels have yet been discovered, but it is very probable that some were struck, as specimens attributable to York are known.

In silver, groats alone are now known, but although all are rare, I have been able to describe eleven varieties in my list, showing that many dies must have been in use. The mint-marks employed comprise several that are not found on the London coins, and are the plain cross pierced, rose, lys, trefoil of united pellets, trefoil with bent stalk, and, strangest of all, the sun. The usual reading of the name is $\text{H}\text{E}\text{R}\text{R}\text{I}\text{C}\text{I}\text{V}$ and on a few $\text{H}\text{E}\text{R}\text{R}\text{I}\text{C}$, while one variety has the exceptional reading of $\text{H}\text{E}\text{R}\text{R}\text{I}\text{C}\text{V}\text{S}$, the sole instance of this complete reading on any *silver* coin of the restoration from either of the three mints. The mint-marks on these Bristol groats deserve rather more than passing mention, as, in addition to their affording proof that at least *some* of the dies were not sent from London, they incidentally throw light upon the sequence of mint-marks on the coins of Edward IV before and after the restoration of Henry VI. Four out of the six are not found on any London

coins, while one London mint-mark, the cross pattée, is never, I believe, met with on a Bristol coin. The pierced cross and the lys are common to both London and Bristol. The rose is a strange mint-mark for a coin of Henry VI at this period, and the sun a stranger one still; but they may be accounted for by the fact that the sun was actually in revived use at Bristol at the time of the restoration, and there were already symptoms of a tendency to revive the use of the rose generally.

The two forms of trefoil are the most remarkable mint-marks, and the strongest evidence of the local production of the dies, as these marks must have had their origin at Bristol. I can suggest no meaning for them, but they may have possibly identified an official or die-maker who afterwards moved to London, as the trefoil of united pellets appears later on a few rare London groats of Edward IV, but any general use of it is confined to the Bristol groats of Henry VI, the variety with the bent stalk [Pl. III. 10] being never found elsewhere.

THE YORK MINT.

As in the case of Bristol, the Royal Mint at York was actively at work at the time of the restoration, and the well-known fleur-de-lys mint-mark was almost exclusively in use, although even here the sun had begun to be revived, there being specimens of the late pre-restoration groats of Edward IV which have it together with the lys.

Although it has been generally assumed that no gold was coined at York during the restoration of Henry VI, the existence of angels and half-angels bearing the lys mint-mark, so identified with York at this period, would seem to point conclusively to the contrary. As gold

was coined at Bristol, there would appear to be every reason for supposing that it was not discontinued at York, which mint, after London, issued the largest amount of silver in the name of Henry VI at this period.

In the accounts rendered by the Master of the Mint (after the return of Edward IV) we find,³ "Concerning some profits issuing from the mints in the Tower and at Bristol, from September 30th, 10 Edw. IV—to April 14th following, there is no account, because John Langstrother (Prior of the Hospice of St. John of Jerusalem), late Treasurer of Henry VI, late *de facto* but not *de jure* King of England, and John Delves, late Treasurer of the Hospice of the late King, had and received all issues and profits of the Exchange and Money of the King there for the said time, as he says on oath. For which issues and profits the said John and John ought to account to the King. Nor is account given of profits issuing from the Coinage of *gold* and silver minted in the Exchange of the King at York from September 30th, 10 Edw. IV to Christmas following, for the causes aforesaid, as he says on oath. But he burdens himself voluntarily with £7 9s. 6d. for money received by him in the exchange of the King there on April 14th, 11 Edw. IV, for money issuing from the mint of gold and silver worked and minted there between Christmas, 10 Edw. IV, and Easter following in the time of Henry VI, late *de facto* but not *de jure* King of England, on which Feast of Easter indeed our present King Edward IV possessed and enjoyed his former dignity." This documentary evidence proves that gold as well as silver was

³ (Exchequer K. R.) Bundle 294, No. 20.

coined at York during the period of the restoration of Henry VI, and it only remains to endeavour to identify the coins struck at the mint in that city.

The angel with the mint-mark lys in the British Museum [Pl. IV. 1], like some of the Bristol angels, strongly suggests that it is from dies not made in London, as it differs from any London or even Bristol angel in the legends on both sides. It is also of rougher work. It is, however, similar in every detail to the one described by Mr. A. E. Packe (*Num. Chron.*, Third Series, Vol. IX. p. 353) from his own collection. The only arguments against the attribution of these lys-marked gold coins to York are, as Mr. Packe observes, first the absence of the letter α in the waves under the ship, and secondly the fact that the lys was occasionally used as a mint-mark elsewhere during the restoration period. The first, as he says, may well be accounted for owing to the letter α being so conspicuous a feature on Edward's gold coins; and in regard to the second, it appears only necessary to point out that at this time the lys was practically the sole mint-mark used at York, while in the rare instances of its being found elsewhere on groats, it occurs, I believe, always in conjunction with another mint-mark on the other side, as if intended to mark a distinction from the York groats, where it is on both sides. Mr. Packe mentions its having been objected that it would be strange if, rare as they are, so large a proportion of the half-angels extant should (as bearing this mint-mark) have come from York. To this I would reply that their preservation may easily be accounted for by accident. The reading $h\epsilon\text{N}\text{R}\text{I}\text{C}$ and $D\epsilon\text{I}$ of the specimen in the British Museum [Pl. IV. 2] is the same as that in Ruding's plate, and thus again in the case

of the half-angel, as with the angel, we find a different reading from the London specimens, which have $\eta\epsilon\text{RRIQ}$ and DI . In silver, groats are more numerous of York than of Bristol, although, owing to the all but exclusive use of the lys mint-mark, there are fewer varieties. The only exception that I can trace is the specimen (No. 5 in my list) now in the British Museum and formerly in the Montagu Collection, which has for mint-mark on the reverse a sun, which appears to be either over a rose, or the latter has possibly been punched over the sun. This reverse is most probably from one of the latest York dies of Edward IV, on some of which the sun was revived. It is a useful coin in affording evidence as to the type of groats presumably being struck immediately previous to the restoration [Pl. IV. 7]. As on the London groats, the reading is $\eta\epsilon\text{RRIQV}$ or $\eta\epsilon\text{RRIQ}$, the former being the most usual, and there are no other variations in the legends, which exactly correspond with those of the groats of Edward IV. Sometimes trefoils are used as stops, and sometimes saltires, and on one variety there is a small lys at the end of the obverse legend. Half-groats were struck at York, but are of excessive rarity, and so far only two specimens appear to be known, one of which (the best) is now in the British Museum [Pl. IV. 5]. It came from the Montagu Collection, having previously passed through the Berne and Brice Collections. The other was in the Cuff Collection, and subsequently in the Martin, Murchison, Whitbourne, and Webb Collections. It is now in my own cabinet. Both are exactly similar, having ϵ on the breast, and read $\eta\epsilon\text{RRIQV}$, &c., with trefoil stops. Both have the usual lys mint-mark.

Pennies of the Archbishopal Mint are now known,

although previously unpublished (for that described by Hawkins (from Ruding) is evidently one of Henry VII's first coinage). One in the Montagu Collection (lot 568), described as from the Brice Cabinet, reads $\eta\epsilon\text{N}\text{R}\text{I}\text{C}\text{V}$, &c.,⁴ but two in my own collection and one or two others that I have seen, all read $\eta\epsilon\text{N}\text{R}\text{I}\text{C}\text{V}$. All, including the Montagu specimen, have the lys mint-mark, and have the usual 6 and key, the marks of Archbishop George Nevill, in the field of the obverse [Pl. IV. 8]. One of mine shows trefoil stops in the obverse legend. Apart from the name, they exactly resemble the Nevill pennies of Edward IV.

CONCLUSIONS.

This paper having been written from the point of view that the short restoration of Henry VI in 1470-71 was merely an episode in the reign of Edward IV (which appeared to the writer to be the only way of treating it numismatically), it may not be amiss to summarize briefly the conclusions that may be drawn from the theories brought forward.

The light coinage of Henry VI is specially useful in arranging the sequence of mint-marks and coins of Edward IV, although there has been some difficulty even with the aid it affords of satisfactorily determining whether certain of them preceded or succeeded the restoration period. I trust, however, that I have given satisfactory reasons for concluding that angels and angelets were not until this period struck in any quantity, and that the cross fitchée was the latest

⁴ Another [Pl. IV. 9] is in the cabinet of Mr. L. A. Lawrence.

pre-restoration mint-mark for London, while at Bristol and York at the same period the sun was being revived (after some discontinuance in favour of the crown) on groats, with trefoils in the field, and other characteristics of the London cross fitchée coins. Briefly the reasons are these:—

(1) The first variety of London angel in my list more resembles in character the early variety of Edward IV than any other angels do, and appears to form a connecting link, while on some of the Bristol angels the resemblance is carried further in their having the Irish title (in part), which appears on no angel of Edward IV but the early variety. The Bristol angels also mostly have the trefoils in the field,—another characteristic of Edward's early angels, and found on none of his other angels.

(2) The adoption to a considerable extent of the modified variety of the cross fitchée mint-mark (which does not seem to have been previously noticed) on the coins of the restoration.

(3) The exact resemblance in the portrait, lettering, and other details of the light groats and half-groats of Henry VI to those of Edward IV with the cross fitchée mint-mark, more especially those (of London) without the trefoils in the field.⁵

FREDK. A. WALTERS.

⁵ The half-groat is not noticed in the first paper, but I have since acquired a specimen.

LIST OF COINS.

GOLD.

THE LONDON MINT.

Angels.

1. *Obv.*— $\text{h}\epsilon\text{N}\text{R}\text{I}\text{C}\text{U}\text{S} \text{ } \epsilon \text{ DI } \text{ } \text{G}\text{R}\text{A} \text{ } \text{R}\epsilon\text{X} \text{ } \text{A} \text{ } \text{A}\text{N}\text{G}\text{E}\text{L} \text{ } \text{A} \text{ } \text{S} \text{ } \text{A}$
 $\text{FR}\text{A}\text{N}\text{C}\text{I}\epsilon$ A St. Michael slaying the dragon; cross in centre of nimbus of the angel. The dragon's tail curls up under the wing of St. Michael.

Rev.—Mint-mark large cross pattée. $\text{P}\epsilon\text{R} \text{ } \epsilon \text{ } \text{G}\text{R}\text{V}\text{S}\epsilon$
 $\text{TV}\text{N}' \text{ } \text{A} \text{ } \text{S}\text{A}\text{L}\text{V}\text{A} \text{ } \text{V} \text{ } \text{R}\text{O}\text{S} \text{ } \text{A} \text{ } \text{X}\text{P}\text{I} \text{ } \text{A} \text{ } \text{R}\epsilon\text{D}\epsilon'$
 TOR Ship on waves, with top-castle to mast surmounted by cross fleury; shield with the arms of France and England quarterly, with cross above. On side of ship h to l. and lys to r. of cross. [Pl. II. 1.] F. A. W.

This coin, in the neatness of the lettering and fulness of the legends, as well as other characteristics, has a marked affinity to the angel of Edward IV with the rose and sun at the sides of the cross on the reverse. It appears to be the earliest example, and is a very rare variety. A very fine specimen was in the Montagu Collection, lot 526 in Sale Catalogue.

2. *Obv.*—Mint-mark pierced cross at end of legend.
 $\text{h}\epsilon\text{N}\text{R}\text{I}\text{C}\text{U}\text{S} \text{ } \text{A} \text{ } \text{DI} \text{ } \text{V} \text{ } \text{G}\text{R}\text{A} \text{ } \text{V} \text{ } \text{R}\epsilon\text{X} \text{ } \text{V} \text{ } \text{A}\text{N}\text{G}\text{E}\text{L}$
 $\text{A} \text{ } \text{S} \text{ } \text{V} \text{ } \text{FR}\text{A}\text{N}\text{C}\text{I}$ Design all as last.

Rev.—Mint-mark pierced cross at end of legend. $\text{P}\epsilon\text{R}$
 $\text{G}\text{R}\text{V}\text{S}\epsilon' \text{ } \text{A} \text{ } \text{TV}\text{N}' \text{ } \text{A} \text{ } \text{S}\text{A}\text{L}\text{V}\text{A} \text{ } \text{A} \text{ } \text{R}\text{O}\text{S} \text{ } \text{V} \text{ } \text{X}\text{P}\text{I}' \text{ } \text{A}$
 $\text{R}\epsilon\text{D}\epsilon'$ TOR Usual design, but top-castle of mast surmounted by a plain cross.

[Pl. II. 2.] British Museum.

3. *Obv.*— $\text{h}\epsilon\text{N}\text{R}\text{I}\text{C}\text{U}\text{S} \text{ } \text{V} \text{ } \text{DI} \text{ } \text{A} \text{ } \text{G}\text{R}\text{A} \text{ } \text{V} \text{ } \text{R}\epsilon\text{X} \text{ } \text{V} \text{ } \text{A}\text{N}\text{G}\text{E}\text{L} \text{ } \text{A} \text{ } \text{S} \text{ } \text{A}$
 $\text{FR}\text{A}\text{N}\text{C}\text{I}\epsilon$ Usual type.

Rev.—Mint-mark pierced cross pattée. PÆR CRYVSE
TVT SΛLVΛ ROS XPI RÆDÆ. T. Pellet
stops; usual type.

Montagu Catalogue, lot 183 (final portion).

4. Legends and mint-mark as last, but on *Rev.* CRYVSEÆ
British Museum.

5. *Obv.*—No mint-mark. ηÆNRIQVS × DÆI × GRV' ×
RÆX ΠQGL § FRΠQ

Rev.—No mint-mark. PÆR CRYVÆ V TVT SΛLVΛ V
ROS XPI RÆDÆMPTOR V Plain cross over
top-castle.

6. *Obv.*—Mint-mark pierced cross fitchée (short). ηÆN
RIQV' Δ DÆI GRV' RÆX Δ ΠQGL V § V
FRΠQ † Δ Δ Usual type; cross in centre
of nimbus of angel.

Rev.—Mint-mark pierced cross at *end* of legend. PÆR
CRYVÆ' Δ TVT' Δ SΛLVΛ Δ ROS V XPI V
RÆDÆ'TOR Plain cross over top-castle of
ship; η and lys at sides of cross. F. A. W.

7. *Obv.*—Mint-mark pierced cross. ηÆNRIQV' DÆI V
GRV' Δ RÆX ΠQGL V § V FRΠQ Δ Large
cross in centre of nimbus of angel.

Rev.—No mint-mark. PÆR CRYVÆ' TVT' SΛLVΛ V
ROS V XPI' Δ RÆDÆ'TO' Usual type,
with η and lys at sides of cross.

[Pl. II. 3.] F. A. W.

8. *Obv.*—Δ ηÆNRIQ' DI GRV' Δ RÆX Δ ΠQGL Δ § Δ
FRΠQ Δ Usual type; tail of dragon curls
out beyond the wing of the angel; cross in
centre of nimbus.

Rev.—Mint-mark cross pattée. PÆR CRYVSE TVT'
SΛLVΛ Δ RO' Δ XPI' Δ RÆDÆMPTOR η
and lys at sides of cross; usual type.

[Pl. II. 4.] British Museum.

9. *Obv.*—All as last.

Rev.—Mint-mark cross pierced. RÆDÆ'T Pellet
stops between words of legend. F. A. W.

10. *Obv.*—As No. 8.

Rev.—Mint-mark cross pattée. PÆR CRVSE TVT
ΣΠΛVΣ NS XPΩ RÆDÆΩTOR

Kenyon, 6. British Museum.

Half-angels.

1. *Obv.*—^Λ ηΕΝΡΙC DI ΓΡΤ RÆX ΠΩΓΛ Σ FR St.
Michael slaying the dragon; cross in centre
of nimbus.

Rev.—Mint-mark pierced cross. + O + CRVX ×
ΠVÆ × ΣΠΕCÆ (*sic*) VΠICΣ Ship with
shield of arms surmounted by cross. Mast
with top-castle and cross fleury above, η and
lys over shield; trefoil to r. of shield, also
(possibly) an annulet, but it is doubtful
whether the latter is not a hole partially
pierced.

This coin was found at Haverfordwest,
and has passed through the Martin, Murchi-
son, Shepherd, Montagu, and Murdoch Collec-
tions.

2. *Obv.*—^Λ ηΕΝΡΙC' Δ DI ΓΡΤ RÆX Δ ΠΩΓΛ Σ FRΣ
Usual type of half-angels; cross in centre of
angel's nimbus.

Rev.—Mint-mark cross pattée. O ^Δ ^Δ CRVX √
ΠVÆ Δ ΣΠΕΣ √ V Δ ΠICΣ η and lys at
sides of cross; above shield, two ropes from
stern and one from prow of ship.

British Museum; from the St. Albans
find. [Pl. II. 5.]

SILVER.

Groats.

1. *Obv.*—Mint-mark cross pierced. ηΕΝΡΙCIV DI ΓΡΤ
RÆX × ΠΩΓΛ ΣΣ FRΠΩ Small trefoils on
all cusps of tressure except the two over crown.

Rev.—Mint-mark cross pierced. POSVI DÆVΩ
ΠDIVTORÆ ΩÆVΩ CIIVITΣ LONDON
Usual long cross and pellets.

2. *Obv.*—All as last, but *all* cusps of tressure fleured.
Rev.—Mint-mark cross fitchée (short) pierced; legends as last. [Pl. II. 6.] British Museum.
3. *Obv.*—Mint-mark and legends as No. 1; one cusp of tressure over crown fleured.
Rev.—Mint-mark lys; legends as No. 1. [Pl. II. 8.] H. B. Earle Fox.
4. *Obv.* and *Rev.*—All as last, but reads $\eta\epsilon\text{N}\text{R}\text{I}\text{C}$ Trefoil stops; cusps of tressure over crown *not* fleured. Montagu Collection, lot 562.
5. *Obv.*—Mint-mark lys. $\eta\epsilon\text{N}\text{R}\text{I}\text{C}$, &c.
Rev.—Mint-mark cross pierced; usual legends. Ruding, *Sup.*, ii. 20.
6. *Obv.*—Mint-mark cross. $\eta\epsilon\text{N}\text{R}\text{I}\text{C}\text{V}$, &c.
Rev.—Mint-mark cross pierced; lys after $\text{D}\epsilon\text{V}\Omega$ British Museum.
7. *Obv.*—Mint-mark cross pattée. $\eta\epsilon\text{N}\text{R}\text{I}\text{C}' \times \text{DI } \text{GR}\text{T} \times \text{R}\epsilon\text{X} \times \text{T}\text{N}\text{G}\text{L} \times \text{FR}\text{T}\text{N}\text{C}$ All cusps of tressure fleured with small trefoils.
Rev.—Mint-mark cross pierced; lys after $\text{D}\epsilon\text{V}\Omega$ [Pl. II. 7.] F. A. W.
8. *Obv.* and *Rev.*—Mint-mark cross pierced. $\eta\epsilon\text{N}\text{R}\text{I}\text{C}\text{V}$ Saltire stops after $\text{R}\epsilon\text{X}$, $\text{T}\text{N}\text{G}\text{L}$, and S ; all cusps of tressure fleured; lys after $\text{D}\epsilon\text{V}\Omega$ W. M. Maish.
9. *Obv.*—Cross pierced. $\eta\epsilon\text{N}\text{R}\text{I}\text{C}$, &c.; all as last.
Rev.—Cross pattée; cross after $\text{D}\epsilon\text{V}\Omega$ F. A. W.
10. *Obv.*—Cross pierced. $\eta\epsilon\text{N}\text{R}\text{I}\text{C}$, &c.; trefoil stops after all words except DI ; cusps of tressure over crown not fleured.
Rev.—Mint-mark cross pattée; large saltire cross after $\text{D}\epsilon\text{V}\Omega$ British Museum.

11. *Obv.*—Mint-mark cross pattée; reads ΗΕΝΡΙC; saltire stops.

Rev.—Mint-mark cross pattée; saltire after ΔΕΥΩ
British Museum.

Half-groats.

1. *Obv.*—Mint-mark cross pierced. ΗΕΝΡΙCΥ' ΔΙ C
CΡΤ' Δ ΡΕΧ' Υ ΠΡΕΛ Δ Σ' Δ FR Cusps of
tressure over crown not fleured.

Rev.—No mint-mark. POSVI ΔΕΥΩ ΠΔΙΥΤΟΡΕ'
ΩΕΥΩ - ΔΙΥΙΤΥΣ ΛΟΡΔΟΝ Pellets
united in form of trefoils.

Hawkins, 343. Wt. 22 grs. Was in the
Shepherd, Brice, and Montagu Collections.

2. All as last, but mint-mark on both *obv.* and *rev.*

[Pl. III. 1.] British Museum.

3. *Obv.*—Mint-mark pierced cross. ΗΕΝΡΙC' ΔΙ CΡΤ
ΡΕΧ' Δ ΠΡΕΛ Σ' FRΥ All cusps of tressure
fleured.

Rev.—Mint-mark pierced cross; legends as last; pellets
united in form of trefoils.

Wt. 22 grs. [Pl. III. 2.] F. A. W.

Penny.

Obv.—Mint-mark cross (pierced?). ΗΕΝΡΙCΥ ΔΙ CΡΤ
ΡΕΧ ΠΡΕΛ

Rev.—ΔΙΥΙΤΥΣ ΛΟΡΔΟΝ Usual cross and pellets.

Wt. 10 grs. [Pl. III. 3.] F. A. W.

Half-pennies.

1. *Obv.*—Mint-mark pierced crossed fitchée (short).
ΗΕΝΡΙCΥ ΔΙ CΡΤ ΡΕΧ Rather thin bust
with tall crown.

Rev.—ΔΙΥΙΤΥΣ ΛΟΡΔΟΝ Pellets joined in trefoil
manner.

Wt. 6 grs.

[Pl. III. 4.] British Museum.

From the Shepherd and Montagu Collections.

2. *Obv.*—Mint-mark and legend as No. 1; bust thicker and crown less tall.

Rev.—Legend as before; pellets entirely disconnected and round.

Wt. $6\frac{1}{2}$ grs.

F. A. W.

Farthing.

Obv.—Mint-mark cross. $\eta\epsilon\text{N}\text{R}\text{I}\text{Q} \times \text{D}\text{I} \times \text{G}\text{R}\text{K}$
($\text{R}\epsilon\text{X} \cdot \pi \cdot$)

Rev.— $\text{C}\text{I}\text{V}\text{I}\text{T}\text{A}\text{S}$ LONDON Pellets joined.

Wt. 4 grs.

[Pl. III. 5.] F. A. W.

The weight of this farthing and the similarity of the bust to that on earlier farthings might cause a doubt as to its correct position here, but the $\text{D}\text{I} \text{G}\text{R}\text{K}$ legend leaves little evidence for any other attribution.

THE BRISTOL MINT.

Angels.

1. *Obv.*— $\eta\epsilon\text{N}\text{R}\text{I}\text{Q}\text{V}\text{S} \wedge \text{D}\epsilon\text{I} \wedge \text{G}\text{R}\text{K} \wedge \text{R}\epsilon\text{X} \vee \text{K}\text{N}\text{G}\text{L}$
 $\wedge \text{S} \vee \text{F}\text{R}\text{A}\text{N}\text{C}\text{I} \vee$ Cross in nimbus of angel.

Rev.—Mint-mark pierced cross. $\text{P}\epsilon\text{R} \text{C}\text{R}\text{V}\text{S}\epsilon \text{T}\text{V}\text{K}$
 $\text{S}\text{K}\text{L}\text{V}\text{K} \vee \text{N}\text{O}\text{S} \vee \text{X}\text{P}\text{C}\text{I} \wedge \text{R}\epsilon\text{D}\epsilon\text{T}$ η to l., lys to r. of cross over ship; trefoil at each side of shield; B in waves under ship.

[Pl. III. 6.] British Museum.

2. *Obv.*— $\eta\epsilon\text{N}\text{R}\text{I}\text{Q}\text{V} \wedge \text{D}\text{I} \vee \text{G}\text{R}\text{K} \wedge \text{R}\epsilon\text{X} \vee \text{K}\text{N}\text{G}\text{L}$
 $\vee \text{S} \vee \text{F}\text{R}\text{A}\text{N}\text{C}\text{I} \vee \text{D}\text{N}\text{S} \vee$ Cross in centre of nimbus.

Rev.—Mint-mark pierced cross. $\text{P}\epsilon\text{R} \text{C}\text{R}\text{V}\text{S}\epsilon \text{T}\text{V}\text{K}$
 $\text{S}\text{K}\text{L}\text{V}\text{K} \vee \text{N}\text{O}\text{S} \wedge \text{X}\text{P}\text{C}\text{I} \wedge \text{R}\epsilon\text{D}'\epsilon\text{M}\text{T}$ η to l. of mast; no lys or other emblem to r.; trefoil at each side of shield; B in waves under ship. Manley Foster Catalogue.

3. *Obv.*— $\eta\epsilon\text{N}\text{R}\text{I}\text{Q}\text{V} \vee \text{D}\text{I} \text{G}\text{R}\text{K} \vee \text{R}\epsilon\text{X} \vee \text{K}\text{N}\text{G}\text{L}$ $\wedge \text{S} \vee$
 $\text{F}\text{R}\text{A}\text{N}\text{C}\text{I} \vee \text{D}\text{N}\text{S} \wedge$ Cross in nimbus of angel.

Rev.—No mint-mark. P̄R CRV̄C̄ V̄ TV̄K̄ A
S̄PLV̄K̄ R̄OS̄ V̄ X̄P̄C̄ R̄AD̄Ē V̄ TOR̄ h
and lys at sides of cross over ship; no trefoils
at sides of shield; B in waves under ship.
F. A. W., ex Montagu and O'Hagan
Collections. [Pl. III. 7.]

Groats.

1. *Obv.*—Mint-mark cross pierced. h̄ARRICV̄S̄ × DI
GR̄K̄ × R̄EX̄ × Π̄R̄Ḡ S̄ FR̄AN̄C̄ B on
breast of king's bust; arcs of tressure above
crown not fleured.

Rev.—Mint-mark rose. POSVI D̄EVS̄R̄ × Π̄DIV̄
TOR̄Ē M̄EVS̄R̄ × VILL̄K̄ × BRISTOW
Usual cross and pellets. W had been punched
on the die instead of V in VILL̄K̄, but the
error is partially obliterated by two saltires
punched over the first half of the W. This
error is of some importance as it enables the
same die to be identified in use with other
obverse dies of both Henry VI and Edward IV.
[Pl. III. 8.] British Museum.

2. *Obv.*—Mint-mark pierced cross. h̄ARRICV̄ Ā DI
GR̄K̄ R̄EX̄ Ā Π̄R̄ḠL̄ V̄ S̄ Ā FR̄AN̄C̄ Cusps of
tressure over crown fleured; B on breast
of bust.

Rev.—Mint-mark rose; from the same die as last.

F. A. W.

3. *Obv.*—Mint-mark pierced cross. h̄ARRICV̄, &c. As
last, cusps over crown fleured; B on king's
breast.

Rev.—Mint-mark trefoil of large pellets. VILL̄K̄
BRISTOW. [Pl. III. 9.] H. B. Earle Fox.

4. *Obv.*—Mint-mark trefoil with curved stalk † h̄ARRICV̄,
&c., as No. 2; saltire stops; cusps
above crown fleured; B on breast.

Rev.—Mint-mark pierced cross. VILL̄K̄ V̄ BRISTOW
Trefoil stops in outer and inner legends.

[Pl. III. 10.] F. A. W.

5. *Obv.*—Mint-mark trefoil without stalk. $\eta\epsilon\text{RRI}\alpha\text{V}$, &c., as last; cusps over crown not fleured; B on breast.
Rev.—Mint-mark trefoil of pellets. VILL π BRISTOW
 F. A. W.
6. *Obv.*—Mint-mark rose (†). $\eta\epsilon\text{RRI}\alpha\text{V}$, &c. B on king's breast.
Rev.—Mint-mark lys. VILL π BRISTOW
 Hawkins, No. 1.
7. *Obv.*—Mint-mark sun. $\eta\epsilon\text{RRI}\alpha$, &c. B on breast.
Rev.—Mint-mark rose. VILL π BRISTOW
 (*Num. Chron.*, N. S., Vol. XI. p. 150.) Neck.
8. *Obv.*—Mint-mark trefoil. $\eta\epsilon\text{RRI}\alpha$, &c. B on breast.
Rev.—Mint-mark cross (pierced?). VILL π BRISTOW
 Webb Collection, lot 161.
9. *Obv.*—Mint-mark trefoil. $\eta\epsilon\text{RRI}\alpha\text{V}$, &c.; B on king's breast.
Rev.—Mint-mark lys. VILL π BRISTOW
 Montagu Collection, lot 563, from the
 Marsham Collection.
10. *Obv.*—Mint-mark lys. $\eta\epsilon\text{RRI}\alpha\text{V}$, &c.; B on king's breast.
Rev.—Mint-mark trefoil. VILL π BRISTOW
 Montagu Sale Catalogue, lot 194 (final
 portion).
11. *Obv.* and *Rev.*—Mint-mark cross pierced. $\eta\epsilon\text{RRI}\alpha\text{V}$
 Trefoil stops on both sides. W. M. Maish.

THE YORK MINT.

Angel.

Obv.— γ $\eta\epsilon\text{RRI}\alpha$ D ϵ I ϵ R π γ R ϵ X π R ϵ L Δ Σ γ
 FR π R α I α Usual design of St. Michael
 slaying the dragon; cross in nimbus of angel.

Rev.—Mint-mark lys at end of legend. P α E α R ν α
 TV π S π LV π ' R α ' X π α R α D α ϵ R Δ TOR
 Usual type of other angels; η to l, lys to r.
 of cross over ship.

[Pl. IV. 1.] British Museum.

Half-angel.

Obv.— $\eta\epsilon\rho\rho\iota\kappa'$ Δ $\Delta\epsilon\iota$ $\epsilon\rho\tau$ \vee $\rho\epsilon\chi$ Δ $\pi\rho\epsilon\lambda$ \vee ζ Δ FR
Same type as London half-angel; cross in
centre of angel's nimbus.

Rev.—Mint-mark lys at end of legend. O $\epsilon\rho\nu$ \vee χ \vee
 $\pi\nu\epsilon$ \vee $\text{SP}\epsilon\text{S}$ \vee Δ $\rho\rho\iota\kappa\pi$ \vee \ddagger \ddagger Usual design;
 η and lys on either side of shield.

[Pl. IV. 2, 3.]

British Museum and Evans Collection.

Groats.

1. *Obv.*—Mint-mark lys. $\eta\epsilon\rho\rho\iota\kappa\nu$ DI $\epsilon\rho\tau$ Δ $\rho\epsilon\chi$ \vee
 $\pi\rho\epsilon\lambda$ Δ ζ Δ $\text{FR}\pi\rho\iota$ ϵ on king's breast;
arches of tressure above crown fleured.

Rev.—Mint-mark lys. POSVI $\Delta\epsilon\nu\Omega$ \times $\pi\text{DIV-}$
 $\text{TOR}\epsilon'$ $\rho\epsilon$ \vee Ω ; $\epsilon\text{IVIT}\pi\text{S}$ $\epsilon\text{BOR}\pi\text{CI}$ Usual
cross and pellets. [Pl. IV. 6.] F. A. W.

2. All as last, but small lys after $\text{FR}\pi\rho\iota$

3. As No. 1, but arches of tressure over crown not fleured.

4. *Obv.*—Mint-mark lys. $\eta\epsilon\rho\rho\iota\kappa$ \vee DI $\epsilon\rho\tau$ Δ $\rho\epsilon\chi$ \vee
 $\pi\rho\epsilon\lambda$ Δ ζ Δ $\text{FR}\pi\rho\iota$ ϵ on breast; cusps of
tressure over crown not fleured.

Rev.—Mint-mark lys; usual outer legend; saltire
after $\Delta\epsilon\nu\Omega$; $\epsilon\text{IVIT}\pi\text{S}$ $\epsilon\text{BOR}\pi\text{CI}$

[Pl. IV. 4.] F. A. W.

5. *Obv.*—Mint-mark lys. $\eta\epsilon\rho\rho\iota\kappa$ \vee DI $\epsilon\rho\tau$ Δ $\rho\epsilon\chi$ \vee
 $\pi\rho\epsilon\lambda$ Δ ζ Δ $\text{FR}\pi\rho\iota$ ϵ on breast; cusps of
tressure over crown fleured.

Rev.—Mint-mark sun over rose (?); usual legends.

British Museum, *ex* Montagu Collection
(lot 561).

[Pl. IV. 7.]

6. *Obv.*—Mint-mark lys. $\eta\epsilon\rho\rho\iota\kappa\nu$, &c.

Rev.—Mint-mark rose (?); usual legends.

Num. Chron., N. S., Vol. XI. p. 151.

F. A. W.

Half-groat.

Obv.—Mint-mark lys. ΗΕΝΡΙCIV' Λ DI Λ ΓΡΑ REX
 Υ ΠΡΟΛ Λ Σ Λ FR All cusps of tressure
 fleured; Η on breast.

Rev.—Mint-mark lys. POSVI ΔΕΥΩ ΠΔΙΥΤΟΡΗ
 ΩΔΕΥΩ ΔΙΥΙΤΑΣ ΕΒΟΡΑΔΙ Pellets con-
 nected in form of trefoils.

Wt. 23·5 grs. British Museum, ex Mon-
 tagu Collection (lot 565). [Pl. IV. 5.]

Pennies (of the Archiepiscopal Mint).

1. *Obv.*—Mint-mark lys. ΗΕΝΡΙCIV DI ΓΡΑ REX Υ
 ΠΡΟΛ Key to r., 6 to l. of bust.

Rev.—ΔΙΥΙΤΑΣ ΕΒΟΡΑΔΙ Usual cross and pellets,
 with quatrefoil in centre.

Wt. 11½ grs. [Pl. IV. 8.] F. A. W.

2. *Obv.*—Mint-mark lys. ΗΕΝΡΙCIV DI ΓΡΑ REX
 ΠΡΟΛ 6 and key at sides of bust.

Rev.—ΔΙΥΙΤΑΣ ΕΒΟΡΑΔΙ Cross and pellets, with
 quatrefoil in centre.

Wt. 10¼ grs. Montagu Collection (lot
 568). (See *Num. Chron.*, Series III., Vol. XI.
 Pl. VII.) and L. A. Lawrence. [Pl. IV. 9.]

F. A. W.

VII.

MUHAMMAD ALI, NAWAB OF THE CARNATIC (1752-1795 A.D.) AND HIS COPPER COINS.

(See Plate V.)

“THE Carnatic, anciently called Canara, properly denotes the tract of country where the Canara language is spoken, but has long since lost its original application, and has two principal meanings, one more extensive, and the other more limited; the former including under it nearly the whole of the south-eastern portion of the Indian peninsula, from the Kistna to Cape Comorin, and the latter adopting the same northern limit, but not descending further south than the country immediately north of the Coleroon, and at the same time so confining it on the west as not to leave it an average breadth of more than seventy-five miles. In this latter sense the Carnatic is nearly identical with the territory which, under the Mogul Empire, formed one of the principal provinces of the *soubah* or government of the Deccan, and was administered by the soubahdar's nabob, or deputy, under the title of the Nabob of Arcot, the whole nabobship taking its name from Arcot, the capital. The country thus defined consists of two portions, differing greatly in their physical features, and distinguished from each other by the names of *Balaghaut* and *Payeenghaut*, or the land *above* and the land *beneath* the

mountain passes. . . . Immediately south of the nabobship of Arcot, were the two rajahships or Hindoo states of Trichinopoly and Tanjore, which, though governed by their own princes, were so far dependent on the Nabob of Arcot, who levied tribute from them, not indeed in his own name, but as deputy of the Mogul" (Beveridge, *Hist. of India*, vol. i. pp. 430, 431).

Daud Khan Pani was made Nawab of Arcot in 1698, but Saadut Ulla Khan (an able and popular chief of Arab extraction) first took the title of Nawab of the Carnatic, and governed the province from 1708 to 1733. The office was not recognized as hereditary. It was held by commission from Delhi, but in the event of the Mogul not exercising or delaying to exercise the right of nomination, a temporary appointment was made by the Soubahdar of the Deccan. Such was the regular mode of procedure when the Mogul Empire was in vigour; but in the state of decay into which it had fallen, the imperial commission was regarded as only a form, and the right of appointment was tacitly, if not overtly, contested between the Soubahdar and the Nawab; the one claiming it as his prerogative, and the other striving to render it hereditary in his family. Saadut Ulla Khan, having no issue, left a will by which he bequeathed the nawabship to his brother's son, named Dost Ali. Nizam-ul-Mulk, who considered himself as independent sovereign of the Deccan, not having been consulted, regarded this as an encroachment on his authority, but owing to other political entanglements at the time, was not in a position to give effect to his resentment. Dost Ali governed the province until he was killed by the Mahrattas in 1740. His son, Safaar Ali, governed until 1742, when he was murdered.

A nephew of Dost Ali succeeded Safaar Ali, but he was expelled by his troops after a few days. The Nizam of the Deccan then appointed Khwajah Abdullah Khan, who died in 1744. Anwar-ud-din Khan next governed for a few months, but was killed by the French at the Battle of Ambur. The son of a former Nawab (Safaar Ali) carried on the government until he was murdered in 1749. Husain Dost Khan, better known as Chanda Sahib, was appointed by the Nizam in 1749, but was beheaded by order of Manikji, General of the Tanjore Army, in 1752. This Nawab was succeeded by

MUHAMMAD ALI [styled WALA-JAH],

who was the second son of Anwar-ud-din. Up to this time, the lot of the former Nawabs had not been a very happy one, as shown above, but Muhammad Ali's nawabship was destined to be an exception, that is, so far as the length of time his government lasted. He commenced to rule over the province in 1752, and held it until he died on October 13, 1795, at the age of seventy-eight years. Before describing the copper coins issued by this Nawab, it is interesting to note the most important events which occurred during his career.

1744.—Muhammad Ali was present with his father at the Battle of Ambur, but fled to Trichinopoly after the French victory, where he shut himself up and assumed the title of Nawab. He implored the assistance of the British, which was given, the British and French taking opposite sides in the choice of a Nawab.

1750.—When the French captured Trivadi, fifteen miles from Fort St. David, Muhammad Ali, to whom it

previously belonged, made an effort to regain it. With this object he raised an army of 20,000 men, which included 1900 men furnished by the British Governor of Fort St. David. Finding the French entrenched, he was urged by the British Commander to force an engagement, but was too cowardly to comply, and contented himself with skirmishes and a distant cannonade. As he refused payment of the expenses of the British contingent, the latter returned to Fort St. David, when the French, at once taking advantage of their absence, brought Muhammad Ali to action and gained a complete victory, without the loss of a single man. Muhammad Ali escaped with difficulty, and reached Arcot with only two or three attendants.

Dec., 1750.—Muhammad Ali was in camp when Nasir Jang, the Nizam of the Deccan, was assassinated, and he fled again to Trichinopoly, his prospects being very gloomy. The British had withdrawn their support, the French were bent on his capture, and thus threatened and perplexed, “he followed the true bent of his nature by weaving an intricate web of policy.” He applied for assistance to the Mahrattas, the Mysoreans, and the British Presidency, and entered into secret communications with the French, and made a treaty by which he was to renounce his claim on the nawabship and content himself with some inferior appointment in the Deccan. He offered to surrender Trichinopoly—a most important link in the scheme of French aggrandizement in India.

1751.—The British again sent Muhammad Ali aid after he had renewed his alliance, but his first campaign proved very disastrous. He attempted to subdue Madura, but failed ignominiously, and a large portion of his army

went over to the enemy, the sympathy of his own troops being with Chanda Sahib.

The French (under Dupleix) began to mark their new acquisitions with white flags quite close to Fort St. David (the seat of the British Presidency after the loss of Madras), and the sight of these flags excited mingled feelings of fear and indignation. The ruin of the British was involved in that of Muhammad Ali, and their only safety was in supporting him to the utmost of their power. "Influenced by such considerations, the British awoke from their lethargy and resolved on action, still, however, not as principals, but under their old disguise of mercenaries or auxiliaries."

An expedition was sent against Volconda, in which Muhammad Ali's troops and a small detachment of British were seized with panic, and were defeated by the French. Strange to say, the panic commenced with the East India Company's battalion, and although their officers—Clive, then a lieutenant, was amongst the number—endeavoured to rally them, it was in vain, and the army retreated to Trichinopoly, the only place of strength now belonging to Muhammad Ali. The British at Fort St. David were now fully committed to the war, but Clive's clever capture of Arcot and other successful operations, were the means of placing Muhammad Ali in virtual possession as Nawab of a territory yielding an annual revenue of £150,000. Before this the Nawab did not possess any spot north of the Coleroon.

1752.—Chanda Sahib was put to death, and Muhammad Ali, now freed from a rival in the Carnatic, became Nawab in reality as well as in name.

Although Trichinopoly was not his—it belonged to the Great Mogul—it was found that he had secretly

promised it to the Dalaway of Mysore, but the British assisted him to evade this promise, although other concessions of territory were made.

The French commenced to intrigue with the Nizam, who first proclaimed himself Nawab, and then conferred it on Chanda Sahib's son. Thus Muhammad Ali had serious obstacles to contend with, and scarcely a chief in the Carnatic voluntarily declared in his favour. The British, however, still continued their support, and determined to march into the Tanjore country. The presence of the Nawab was thought desirable, but his troops mutinied, and "the singular spectacle was seen of two hundred Europeans, with fixed bayonets, escorting the Nawab, in whose cause the Company had already expended much blood and treasure, because his own troops, so far from escorting him, were bent on committing an outrage on his person. A few days afterwards the whole of these troops repaired in a body to the British commander, and intimated their intention to join the enemy. This intimation they accompanied with the singular request that he would not fire upon them while they were marching off. Glad to be quit of them on any terms, he granted their request, and they walked off unmolested" (Beveridge, *op. cit.*, vol. i. p. 488).

The ascendancy which the French had endeavoured to establish in India, was completely overthrown by the capture of Pondicherry in 1761. During the great struggle nearly the whole burden had lain on the shoulders of the British. "Mahomed Ali, in whose cause they were ostensibly fighting, was unable to give them any effectual aid. On the contrary, his pretensions and intrigues often threw obstacles in their way, and more than once involved them in quarrels from which

they were afterwards unable to disentangle themselves without suffering both in their interests and their reputation. It is true that he was wholly in their power, and could not act in any matter of the least importance without their sanction or support; but it was long before either he or they were fully alive to the true position in which they stood. At all events, they had so long been accustomed to pay him all the external homage due to sovereignty, that they did not venture to act openly on any denial of it, and were often in consequence betrayed into ludicrous inconsistencies. At one time they addressed him as petitioners, and supplicated his favour with mock humility; at another time they threw off all disguise, and rebuked him in the rudest terms for presuming to act as if he possessed a particle of independence. The Nabob, who clung to his name perhaps all the more tenaciously from having lost the reality, was deep if not loud in his complaints of the humiliations to which he was subjected, and surrounded himself by a host of dependants, many of them European adventurers, who played upon his weaknesses, and turned them to profit. In this way misunderstandings were constantly arising, and it required little sagacity to foresee that sooner or later a rupture would take place, and transfer the name as well as the reality of power to the hands which were actually wielding it" (Beveridge, *op. cit.*, vol. ii. p. 207).

1763.—The war with France was concluded by the Treaty of Paris in 1763, one of the clauses of which, was the mutual obligation to "acknowledge Muhammad Ali for lawful Nabob of the Carnatic,"—a curious arrangement, as the Nawab was nothing more than the sub-deputy of the deputy of the Mogul, and it was necessary

for the title to be recognized by the superior. The Nabob, listening to the sycophants who surrounded him, was told that he was henceforth to regard himself as a sovereign potentate, equal in rank to the greatest monarchs in Europe, and of course infinitely superior to all the governors of the Company, since they could not deny that they were only subjects. It was a difficult task, however, to turn this new dignity to account. When the Company originally espoused his cause, they stipulated that Madras and the adjoining territory was to be held rent free, and the expenses of the war to be defrayed from the rents collected in the Nawab's name. After much opposition he was induced to hand over a "jagheer" to the Company. He began to compel the tributary states to pay their arrears of tribute. He reduced Vellore after much opposition, and then commenced a dispute with the Rajah of Tanjore, who claimed that territory as an independent kingdom.

1767.—Muhammad Ali sent an agent to prosecute his interests with the English Ministry to London, "as he felt galled beyond measure at the control which the Company exercised over all his movements," the agent being bold enough to offer presents first to the Minister and then to his Secretary.

1787.—Muhammad Ali agreed to four-fifths of his revenues being paid to the Company as his proportion in time of war; nine lacs as the expense of the civil and military establishments, together with twelve lacs to his creditors, were to be his payments in time of peace.

When the war with Tipu Sultan of Mysore commenced, the arrears began to accumulate so rapidly as to leave the Company no alternative but to take the management entirely into their own hands. The Nawab, as usual,

strenuously opposed, and even threw obstacles in the way of the Company's collectors.

1792.—Muhammad Ali made another treaty with the Company, giving it the sole management of revenues in time of war, and reserved the management to himself in time of peace; he was, however, to make an annual payment for the military establishment of the Company, and to pay a fixed sum to his creditors.

1795.—Muhammad Ali died on October 13, 1795, after a long and inglorious career. "Though understood to have been in possession of considerable treasures, he had early become the prey of usurers and sharpers. As payments to the Company fell due, instead of emptying his own coffers, he met them by raising usurious loans, chiefly from the European residents, on the security of the territorial revenues. In these loans the lenders usually stipulated for the appointment of their own managers, and thus the unhappy ryots were handed over to the tender mercies of men whose only interest in the soil was to wring from it the largest sum of money in the shortest possible time. The effects were most grievous oppression of the people, general impoverishment, and consequent decay of revenue." When Seringapatam was captured in 1799, documents were found which seemed to establish a secret correspondence between him and Tipu, for objects hostile to the interests of the Company.

Umdatul'umara ("Pillar of Nobles"), the son of Muhammad Ali, died on July 15, 1801, and Ali Husain, the eldest son of the latter, was deposed by the East India Company on July 19, 1801. Azim-ud-daulah, another son of Umdatul'umara, delivered over the government of the Carnatic to the English by

treaty on July 19, 1819, when the family became pensioners.

The independence of the Nawabs of the Carnatic was more definite during the time of Muhammad Ali than at any previous period, and, so far as I can gather, he was the only Nawab to issue coins in his own name and without reference to his nominal chief, the Nizam of the Deccan. There was a certain amount of truth in the statement made by his agent to the Prime Minister in England, when endeavouring to get the Nawab's grievances redressed, that "he (the Nawab) was the person to whom Britain owed the rise of her power in India," and on this account, the copper coins issued by him deserve notice. The coins referred to below are by no means very common in the Carnatic; in fact, they represent all I was able to procure during a residence of several years in that part of India. Captain Tufnell, in his interesting book on the Coins of Southern India, refers to one or two copper coins issued by this Nawab, but as they are not figured I cannot say if they are the same as those now depicted. I am not aware of any gold or silver coins issued by Muhammad Ali. I had, however, in my collection a gold pagoda bearing on the obverse a figure of Vishnu, as Venkatesvara, and his two wives, and the Arabic letter ξ in the centre of a convex granulated surface reverse, which coin, Marsden ascribes to Muhammad Ali Nawab. My specimen I procured in a remote village in the province of Mysore.

COPPER COINS OF MUHAMMAD ALI (STYLED
WALA-JAH), 1166-1210 A.H. = 1752-1795 A.D.

Obv.—والاجاه = Wala-jah.

۱۲۰۱ سنه هجرى = Hijri year 1201 (= 1786
A.D.).

Rev.—۳۵ ضرب اركات جلوس سنه = "struck at Arcot
in the 35th year of reign." Arcot was the
capital of Carnatic India. [Pl. V. 1.]

Obv.—والاجاه = Wala-jah.

Rev.—Persian numerals, which may possibly be intended
for the year of his reign. [Pl. V. 2-5.]

Obv.—والاجاه = Wala-jah.

Rev.—An attempt at the Tamil letter ன (N) for
Nawab. [Pl. V. 6.]

Obv.—[نوا]ب = Wala-jah Nawab.

Rev.—Dots, and possibly his year of reign. [Pl. V. 7.]

Obv.—والاجاه = Wala-jah, within a lined circle.

Rev.—۱۲۰۶ نواب = Nawab 1206 (= 1791 A.D.), within
a ring of dots. [Pl. V. 8.]

Obv.—والا = Wala } = Wala-jah, in lined circle.
Rev.—جاه = Jah }

[Pl. V. 9.]

Obv.—ع — the initial of Muhammad Ali, with crossed
lines.

Rev.—Persian numerals and the Sun and Moon, the
latter very common signs in the Carnatic, repre-
senting permanency of rule. [Pl. V. 10-12.]

Obv.—Initial ع (inverted) for Muhammad Ali. Initial
ن for Nawab.

Rev.—والاجاه = Wala-jah.

[Pl. V. 13.]

Obv.—۱۲۰۶ جاہ [والا] = [Wala]-jah 1206 = 1791 A.D.

Rev.—[۱۱] ت ضرب = Struck at Arcot. [Pl. V. 14.]

Obv.—والا جاہ = Wala-jah.

Rev.—[۱۱] ۸۳ سنہ = Year [11]83 = 1769 A.D.
[Pl. V. 15.]

Obv.—والا جاہ = Wala-jah.

Rev.—Horse galloping to the r. [Pl. V. 16.]

Obv.—نواب؟ = Nawab (?).

Rev.—والا جاہ = Wala-jah. [Pl. V. 17.]

Obv.—A rude attempt at “Wala-jah.”

Rev.—[۱۱] ۷۶ سنہ = Year 1176 = 1762 A.D.
[Pl. V. 18.]

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VIII.

THE COINAGE OF BALAPUR.

(See Plate V.)

GREAT BALAPUR and Little Balapur are situated in the Province of Mysore, and were at one time independent states, but now form "taluks" of the Bangalore and Kolar districts respectively. The following is a short history of Great Balapur and Little Balapur, which are about twelve miles distant from each other, extracted from Hawkes' *Coinage of Mysore*, pp. 14, 15.

Great Balapur.—"About the year 1610, Shajee, being then in the service of the King of Vijeapoor, was provincial governor of his conquests in the Carnatic, and resided much at Balapoor, Bangalore, and Colar. Great Balapoor was afterwards the Jagheer of Russool Khan, the Soubedar of Seera, who in 1728 was superseded in the command and killed by Tahir Khan. The Jagheer was, however, continued to his son Abbas Coolie Khan, who at the suggestion of his mother renounced his claim to the office of Soubedar or Nabob of Seera, in favour of Tahir Khan. Abbas Coolie Khan plundered the family of Futteh Mahommed, the father of Hyder, who in order to revenge himself for this insult to his ancestor, formed a junction with Basult Jung many years afterwards (1761 A.D.) and entered Balapoor, but Abbas Coolie Khan effected his escape. In 1770 Madoo Row took

Great Balapoor, and the next year Hyder sent a strong force by night from Bangalore to retake it, but, failing, the troops were cut to pieces. In the treaty with the Mahrattas in 1772 Great Balapoor remained in their hands, but was retaken by Hyder in 1773. In 1791 the Mahratta confederate of Lord Cornwallis threw a garrison into the place, but was again ejected by Kummer-ooddeen, Hyder's general."

Little Balapur.—"Little Balapoor was first rendered nominally subject to Mysore by Cauty Reva Raj about the year 1704. After Hyder's capture of Great Balapoor in 1761 he was most anxious to possess this little state also. The place was at this time in the possession of the former Polygar of Deonhully, who, on the reduction of the latter fortress by Nunjeraj in 1749, had capitulated on the condition of being allowed to retire to Little Balapoor; from that time he had been engaged in incessant attempts to recover Deonhully. Hyder, therefore, laid siege to Little Balapoor in 1762, and reduced it, but the Polygar escaping fled to Nundidroog, where he was at last captured and sent to perpetual imprisonment in Coimbatore. In 1791 Little Balapoor surrendered without opposition to Lord Cornwallis, by whom it was given in charge to the original Polygars; from these, however, it was again taken by surprise soon after."

Hawkes gives the following list of coins issued by these two small states:—

(1) Gold fanam, struck by Abbas Coolie Khan, which bears the word "Balapoor" at full length in Hindustani character.

(2) Gold fanam, said to have been struck by Hyder, which bears on either side part of the word "Balapur" in Hindustani characters.

(3) Gold fanam, bearing on one side the letters "Bala," a contraction for "Balapoor," and on the other a symbol not unlike that seen on the Mahratta coins.

Nos. 1 and 2 were issued in Great Balapur; and No. 3 in Little Balapur.

With regard to the reverse of No. 3, Captain R. H. C. Tufnell, in his article "On a Collection of South Indian Coins," contributed to the *Journal of the Asiatic Society of Bengal* in 1886, was of opinion that the figure which Hawkes likened to the device on the early Mahratta coins, was merely a perversion of the word Muhammad (محمد). Captain Tufnell was correct, as the inscription on the three specimens in my collection is quite clear:—

Obv.—محمد شاه = Muhammad Shah.

Rev.—بالاپور (in full) = Balapur. [Pl. V. 19.]

Another Balapur fanam, with inscriptions similar to No. 1, but much smaller and thicker, is illustrated in Pl. V. 20.

Muhammad Shah was the name of the Mughal Emperor who reigned at Delhi from 1718 to 1748.

There are two specimens in my collection of the gold fanam issued at Balapur in the name of Alamgir II, Emperor of Delhi, 1753 to 1761.

Obv.—عالمگیر ثانی = Alamgir II.

Rev.—بالاپور = Balapur. [Pl. V. 21.]

The other has the same inscription on the reverse, and with a name on the obverse which I have been unable to read. [Pl. V. 22.] It may have been one of Hyder's issues—the ح being his initial.

Gold Balapur Fanam.

Obv.—محمد شاه = Muhammad Shah.

Rev.—Part of the word "Balapur." [Pl. V. 23.]

Chittledroog, Nundydroog, Deonhully, Ooscotta, Colar Bedenore, Coonghul, Coodeconda, Culian Droog, Savanoor, Harponhully, Gooroomconda, Gooti, and Chendragherry, as well as the two Balapurs, had their own gold coinage, either fanams or pagodas, or both, before Hyder established his supremacy. All these states at one time formed part of the Vijayanagar kingdom until 1565, when its power was shattered at the decisive Battle of Talikota, by a combination of the armies of the four Muhammadan principalities of the Deccan. The Muhammadan conquerors issued their gold coins in the name of the Delhi sovereign, but none of these states appear to have issued a copper coinage. Hawkes mentions that Chittledroog issued cash, but these could not have been very numerous, as they are seldom seen in that place. I have not been able to find any reference to a copper coinage of Balapur in any contribution on Southern India coins, but in August, 1892, I visited Great Balapur at the suggestion of Dr. Hultzsch of the Archaeological Survey Department, and whilst encamped at the village one of the residents brought to me a bag containing thirty-two copper coins of Balapur, which I purchased of him. All the coins bore traces of having been in constant circulation, and appear to have been issued in the name of Muhammad Shah, Emperor of Delhi. Although I have travelled over the greater portion of the Mysore Province hunting for coins, these were the only Balapur copper coins I met with. I could not find any specimens amongst the Southern Indian Collections at the British Museum, and was thus able to present two specimens to that institution. It will be noticed that the inscriptions on these copper issues are very similar to those on the gold fanams issued in the name of

Muhammad Shah. Only fragments of the legend on the obverse appear on single coins; the full legend, after comparing several, is—

Obv.—محمد شاه بادشاه = Muhammad Shah, Emperor.

Rev.—ضرب بالاپور = "struck at Balapur."

[Pl. V. 24-34.]

The fact that these copper coins have not been more frequently encountered, would lead one to conclude that copper was given a trial in this state, and that it was withdrawn out of deference to popular prejudice, which was apt to regard with suspicion any new form of coin. No silver coins were issued by these small states, and there was no need for them, owing to the small value of the gold fanam—forty-two fanams being equal to one pagoda, which was worth three and a half rupees. For petty transactions cowries (the *Cyproea moneta*) were made use of, eighty of which were equal to one fanam; so the necessity for copper coins was not apparent. Hyder's son, Tipu Sultan, was the first to introduce silver coins into the Mysore Province. In the small independent states before Hyder's usurpation (1761-1782) the currency was thus limited to gold and shells.

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IX.

ASPECTS OF DEATH, AND THEIR EFFECTS ON THE LIVING, AS ILLUSTRATED BY MINOR WORKS OF ART, ESPECIALLY MEDALS, ENGRAVED GEMS, JEWELS, &c.

(Continued from p. 96.)

PART IV.

ENGRAVED GEMS, FINGER-RINGS, JEWELS, &c., RELATING TO DEATH AND THE VARIOUS ASPECTS OF OR ATTITUDES TOWARDS DEATH.

THERE seem to be no antique gems engraved with devices which could make one suppose that they had served the purpose of memorial tokens of deceased friends or relatives, analagous to the memorial finger-rings of relatively modern times, to be described later on. No "parting scenes" occur on gems, such as are found on some beautiful Greek sepulchral marbles, reminding one of the famous lines of Lucretius, commencing—

"Jam jam non domus accipiet te laeta neque uxor
Optima, nec dulces occurrent oscula nati
Praeripere et tacita pectus dulcedine tangent ;"

and of Horace's—

"Linquenda tellus et domus et placens
Uxor neque harum quas colis arborum
Te praeter invisas cupressos
Ulla brevem dominum sequetur."

There are, however, various engraved gems of early and later Roman times which may be supposed to have in a kind of way served a *memento mori* purpose. Thus C. W. King figures a late Roman sard intaglio (once the property of Murat),⁷⁴ on which a winged Cupid-like figure (a kind of "genius of death," like that found on Roman sarcophagi) is represented (Fig. 34) holding a torch downwards (an "inverted" torch). He also figures a peridot intaglio of Roman Empire style,⁷⁵ on which Charon in his boat receives a soul from Mercury (that



FIG. 34.—A genius of death. (After King.)



FIG. 35.—Charon in his boat, receiving a soul from Mercury. (After King.)

is to say, the Greek Hermes, in his character of psychopompos," see later on) (Fig. 35). Several Roman gems (intagli) are engraved with figures of skeletons ("larvae" or "shades"). Some at least of these designs seem to suggest the popular conception of Epicurean advice,

⁷⁴ C. W. King, *Handbook of Engraved Gems*, London, Second Edition, 1885, Pl. xliii. No. 2. In regard to the representation of a "genius" of sleep, with or without wings, on Roman tombs, see G. E. Lessing's famous controversial essay, *Wie die Alten den Tod gebildet* (1769).

⁷⁵ King, *loc. cit.*, Pl. lii. No. 6. A so-called "gryllus" of human faces combined with a death's head might also be mentioned here, but the significance of the device is uncertain, though Venuti and Borioni (1763), who figured it, thought it was meant to represent the ages of human life.

namely, to seek pleasure, to eat, drink, and enjoy life to-day, since death may come to-morrow.⁷⁶ Thus, an occasional subject (Fig. 36) is a skeleton with a large



FIG. 36.—The skeleton and wine-jar type. (After King.)

wine-jar (amphora)⁷⁷ or two skeletons with a wine-jar between them.

⁷⁶ Cf. Horace's ode—

“Huc vina et unguenta et nimium brevis
Flores amoenae ferre jube rosae,
Dum res et aetas et sororum
Fila trium patiuntur atra;”

and similar passages already quoted, and likewise the well-known students' song (? of the eighteenth century)—

“Gaudeamus igitur, juvenes dum sumus,
Post jucundam juventutem,
Post molestam senectutem,
Nos habebit humus.”

This portion, at least, of the words of the famous students' song is older than J. M. Usteri's (1793)—

“Freut euch des Lebens,
Weil noch das Lämpchen glüht;
Pflücket die Rose,
Eh sie verblüht.”

⁷⁷ C. W. King, in 1869 (*Horatii Opera, illustrated from Antique Gems*, p. 431), described the device on a gem of this kind as follows: “Skeleton, the received mode of depicting a *larva*, or ghost, leaning pensively against an amphora, and holding out the lecythus, oil-flask, that indispensable accompaniment of every Grecian burial. These two vessels held the wine and oil, the libations poured upon the funeral pile.” But in the second edition of his *Handbook of Engraved Gems*, 1885 (p. 226), he describes the same device (*i.e.* the device on the identical gem) as an Epicurean device: “Larva, ghost, leaning upon a tall wine-jar, and

On one gem a skeleton is seen emerging from an urn, by the side of which some armour is piled, and plucking a branch from a palm-tree (Fig. 37). C. W. King⁷⁸ alludes to this device as "a speaking allegory of the reaping of posthumous fame." It may, perhaps, be held to express the emptiness of posthumous fame, and to illustrate the lines of Persius (*Sat.* 5, line 229, Dryden's



FIG. 37.—Allegory of posthumous fame. (After King.)

translation): "Live while thou liv'st; for death will make us all a name, a nothing but an old wife's tale." It is,

holding forth an unguentarium: an Epicurean hint to enjoy life whilst one can." In connexion with the skeleton and wine-jar devices on engraved gems, it is interesting to note that a figure of a skeleton in the posture of a drunken or dancing man occurs on a Hellenistic vase in the Schliemann Collection of the Ethnographical Museum at Berlin. The vase is illustrated in E. Holländer's *Die Karikatur und Satire in der Medicin*, Stuttgart, 1905. This brings one to the uncertain subject of the meaning of dancing skeletons in Roman times. On a sculptured sarcophagus, found in 1810 near the site of Cumae, three such dancing skeletons were represented, and skeletons in similar attitudes have been described on a Roman lamp and on a painting at Pompeii (F. Douce). A dancing skeleton on an antique gem will be referred to later on. Perhaps such devices were intended to imply that what happened after death was by no means necessarily unpleasant. Possibly there was some superstitious significance connected with the representation of dancing skeletons; for instance, a protective influence against malevolent spirits may have been attributed to the devices in question.

⁷⁸ *Handbook of Engraved Gems*, edition of 1885, p. 217.

however, not quite certain that any "Epicurean" suggestion was implied by the device. On the contrary, as expressing the vanity of posthumous fame, the gem may possibly have belonged to a Roman philosopher of the type of Marcus Aurelius, who "made it a special object of mental discipline, by continually meditating on death, and evoking, by an effort of the imagination, whole societies that had passed away, to acquire a realized sense of the vanity of posthumous fame."⁷⁹

Another gem⁸⁰ represents Cupid throwing the light of a torch into a large vessel (crater), from which issue a



FIG. 38.—Cupid dislodging a skeleton. (After King.)

skeleton and a laurel-branch (Fig. 38). This device may signify the driving out of an evil spirit (*i.e.* one of the Larvae, as opposed to the Lares) by Love, or it may

⁷⁹ See Lecky's *History of European Morals*, edition of 1905, vol. i. p. 186. Lecky says (*loc. cit.*, p. 185) that the desire for reputation, especially for posthumous reputation, "assumed an extraordinary prominence among the springs of Roman heroism."

⁸⁰ C. W. King, *Handbook of Engraved Gems*, edition of 1885, Pl. lxxv. No. 3. In the first edition of the *Handbook* (Bohn's Illustrated Library, 1866, p. 364) King says that on this gem it is clear that the skeleton represents a ghost—Ovid's "ossea larva," and Seneca's "larvarum nudis ossibus cohaerentium figuras." *Larva*, he says, was the name given to the shades of the wicked; those of the good, on the contrary, became *Lares*, or domestic deities. But even amongst the Romans themselves there was probably some confusion in regard to the terms *Larvae* and *Lemures*.

have been meant to convey the "Epicurean" hint that gloomy thoughts might be expelled by the aid of the light of Love.

A few gem-designs of this period seem to suggest the possibility of the survival of the soul (Psyche) after death. Certain terminal Hellenistic bearded heads (in the style of a so-called "Hermes" or "Terminus") engraved in profile with butterfly wings above the ear have often



FIG. 39.—So-called head of Plato. (After King.)

been described as portraits of Plato⁸¹ (Fig. 39). This explanation was apparently due to Winckelmann,⁸² who regarded the butterfly's wings as an allusion to Plato's argument for the immortality of the soul. Furtwängler⁸³ speaks of all such heads as representing Hypnos, the Greek god or personification of sleep, who on a fine bronze head of the fourth century B.C. (from Civitella

⁸¹ C. W. King, *Handbook of Engraved Gems*, edition of 1885, Pl. lxix. No. 3; A. H. Smith's *Catalogue of Engraved Gems in the British Museum*, 1888, Pl. i. No. 1512. Similar heads are figured by A. Furtwängler amongst Hellenistic and early Roman intagli. See Furtwängler, *Die antiken Gemmen*, Leipzig, 1900, vol. i. Pl. xxvi. Nos. 41, 42, and Pl. xxx. Nos. 24-26. Below the bust on one of those pictured on Pl. xxx. (No. 24) is a caduceus (*κηρύκειον* of Hermes), thus bringing the gem in question into connexion with the Greek Hermes-busts.

⁸² Winckelmann, quoted by A. H. Smith, *loc. cit.*, p. 170. On an antique gem at Paris, evidently representing portraits of Socrates and Plato facing, that of Plato is without the wings. See King, *Handbook of Engraved Gems*, edition of 1885, Pl. xlix. No. 2.

⁸³ A. Furtwängler, *loc. cit.*, vol. iii. pp. 209, 292.

d'Arno, near Perugia), now in the British Museum, is represented beardless⁸⁴ and youthful, with the wings of a night-hawk attached to his temples (the wing on the left side has been broken off). An almost certain and unmistakable allusion to the doctrine of the immortality of the soul is, however, furnished by an early Roman intaglio (Fig. 40) representing a bearded man (philosopher) seated, reading from a scroll; on the scrinium before him is a human skull (emblem of the mortality of the body), and above it a butterfly, the symbol of Psyche, or the human soul.⁸⁵



FIG. 40.—Philosopher reading from a scroll, with a skull and butterfly on a scrinium before him. (After Furtwängler.)

The butterfly was, indeed, as Furtwängler has pointed out, employed at a still earlier period to indicate the

⁸⁴ There is a marble statue of Hypnos at Madrid and a bronze statuette at Vienna. A youthful beardless figure of Sleep, with butterfly wings on his back, and with horns (containing balm?) in his hands, occurs also on gems, if C. W. King's interpretation is correct (*Antique Gems*, 1872, Pl. xxxvi. No. 1, and *Handbook*, 1885, Pl. lxxvi. No. 3). On an engraved gem, figured by A. Furtwängler (*loc. cit.*, vol. i. Pl. xxx. No. 53), Hypnos is represented as a bearded figure (King has described this figure as Death—cf. footnote 95 in regard to the possible confusion of representations of Death with representations of Sleep) with wings on his back, coming to the relief of the tired Heracles; and on two other antique gems (Furtwängler, *loc. cit.*, vol. i. Pl. xviii. No. 28, and Pl. xxxvi. No. 20) he is represented in the same form, but behind the figure, not of Heracles, but of a sleepy or sleeping woman. The supposed thunderbolts on a gem of this type (King, *Handbook of Engraved Gems*, edition of 1885, Pl. lxxv. No. 4), which, according to Furtwängler, are really ants, made King describe it as representing "Jupiter descending in a shower of thunderbolts upon the dying Semele." The early and archaistic representation of Hypnos with a beard may be compared with that of Hermes in the early and archaistic bearded types, so different from the figures of the Roman Mercury. It is, of course, quite natural that male figures should be more frequently represented with a beard in archaic (and therefore also archaistic) than in later art.

⁸⁵ Furtwängler, *loc. cit.*, vol. i. Pl. xxx. No. 45. This type was more probably intended to represent Pythagoras than Plato.

soul, and Furtwängler figures an Etruscan scarabaeus of the fifth century B.C. (to which I shall again refer), on which Hermes, in his character of $\Psi\upsilon\chi\alpha\gamma\omega\gamma\acute{o}s$, is represented with a butterfly on his right shoulder.⁸⁶

At any rate, Psyche herself is frequently accompanied or symbolized by a butterfly on Roman gems, and a butterfly as the symbol of Psyche is often associated with a figure of Cupid. Sometimes a Cupid is represented burning a butterfly with a torch or at a flaming altar, or the butterfly is represented burning itself over a torch or flaming altar.⁸⁷ It seems as if the butterfly on Roman gems, though often symbolical of the immortality of the soul (freed from its chrysalis-like imprisonment in the body), yet may sometimes signify sexual love or the consuming passion of love, as if Psyche were merely a kind of "female Cupid."

I am inclined to think that the latter explanation is occasionally the correct one, though in some cases both explanations are possible. Thus, on a gem figured by Furtwängler,⁸⁸ a skull is depicted with a butterfly above it (Fig. 41). This may be taken as an emblematical representation of mortality (the skull) and immortality (the butterfly), that is to say, of the survival of the soul (the butterfly) after death (the skull), or else as an Epicurean hint contrasting love (the butterfly) with death (the skull), just as on the gems previously mentioned the wine-jar and the Cupid were contrasted



FIG. 41.—Skull with butterfly above it. (After Furtwängler.)

⁸⁶ For other early instances of the butterfly being used as a symbol of the soul, see Furtwängler, *loc. cit.*, vol. iii. pp. 202, 203.

⁸⁷ *Catalogue of Gems in the British Museum*, 1888, Nos. 832, 833.

⁸⁸ A. Furtwängler, *loc. cit.*, vol. i. Pl. xxix. No. 48.

with the skeleton. Possibly the choice of interpretations was intentionally offered by the engraver of the device. On another intaglio the upright figure of a skeleton is accompanied by the following symbols—a wine-jar, a wreath, a ball, and a butterfly. This device may be intended to represent the instability of human life (the ball), and to contrast temporary sensual enjoyment (the wine-jar and the wreath) with the immortality of the soul (the butterfly) after death (the skeleton), but is much more probably intended to convey the Epicurean advice that since human life is uncertain and fleeting (the ball), and since after death (the skeleton) no pleasure is possible, it is better to lose no opportunity of enjoying wine and feasting (the wine-jar and wreath) and love (the butterfly). Furtwängler refers likewise to a gem⁸⁹ representing a skeleton and a butterfly with a torch below the latter, and thinks that this device is meant to signify that the soul also is perishable. As I have already stated, I think that the burning butterfly on Roman engraved gems may be emblematical of sexual love, in which case the device in question would closely resemble the Epicurean devices already referred to, but it may indeed be an illusion to views current at the period, that the soul is no more immortal than the body, that, as Lucretius in his great didactic poem, *De Rerum Naturá*, endeavoured to teach, it perishes with the body.

It is, however, quite likely that amongst the Romans the idea of love (*i.e.* sexual love) was often blended with

⁸⁹ Furtwängler, *loc. cit.*, vol. iii. p. 297. This gem (a carnelian intaglio) is depicted in an absurdly magnified form by R. Venuti and Borioni (*Collect. Antiq. Roman.*, Rome, 1736, Pl. lxxx.). Amongst the various symbols associated with the skeleton, in addition to the skull and butterfly, is a wheel, evidently referring to the uncertainty and fleeting nature of human life.

the idea of the human soul, whether the latter was regarded as mortal or immortal. It appears, then, natural that Psyche (or her butterfly) should be employed as a symbol both of sexual love and of the soul, though the soul was doubtless regarded by some as mortal and by others as immortal.

The story of Cupid and Psyche was adopted by the early Christians as typifying the purification of the soul, just as that of Orpheus charming the wild beasts was regarded as symbolic of Christ.

In regard to the doctrines of metempsychosis and the question of a spiritual existence independent of bodily life, I shall for convenience here refer to a Graeco-Scythian gold finger-ring (about the first century B.C.) found in the tomb of a woman at Kertch (the ancient Panticapaeum), and presented by Dr. C. W. Siemens to the Ashmolean Museum at Oxford. Accord-



FIG. 42.—From a Graeco-Scythian gold finger-ring.

ing to the description exhibited in the Museum, the facing head engraved in intaglio on the bezel represents the Oriental moon-god (Deus Lunus of later Rome), and the figure of the bee above the head is the symbol of the moon as the abode of spirits (Fig. 42). In the old Persian religion (according to the same account) the moon represents the cosmic bull from whose carcass bees, typical of the vital principle in souls, swarmed to earth.⁹⁰ Thus, in Mithraism the moon itself came to

⁹⁰ Compare Virgil's description (*Georg.*, iv.) of a method, said to have been practised in Egypt, of raising a stock of bees from the putrefying carcass of a steer. Compare also the story of Samson and the swarm of bees in the lion's carcass (*Judges*, ch. xiv. ver. 8). In reference to Virgil's mistaken belief, Mr. S. G. Shattock has drawn attention to the

be known as the Bee (cf. Porphyrius, *De Antro Nympharum*). For permission to illustrate the ring in question I am indebted to Mr. D. G. Hogarth, Keeper of the Ashmolean Museum, who kindly sent me an impression.

There are several antique gem-types to which we must still allude. In the first place, Hermes has sometimes been represented on early intagli in the exercise of his functions as $\Psi\upsilon\chi\omicron\pi\omicron\mu\pi\acute{o}\varsigma$ ($\nu\epsilon\kappa\rho\alpha\gamma\omega\gamma\acute{o}\varsigma$, $\psi\upsilon\chi\alpha\gamma\omega\gamma\acute{o}\varsigma$, etc.), the conductor of the shade ($\epsilon\acute{\iota}\delta\omega\lambda\omicron\nu$) or soul ($\psi\upsilon\chi\eta$)



FIG. 43.—Hermes Psychopompos.
(After Furtwängler.)



FIG. 44.—Hermes with butterfly
on right shoulder. (After Furtwängler.)

of the deceased from the upper to the lower world. Particularly interesting is an Etruscan sardonyx scarabaeus,⁹¹ on which (Fig. 43) Hermes is seen standing with petasos slung at the back of his neck, holding a diminutive human figure (evidently intended to signify a human soul or shade) on his left arm, whilst in his right hand is the kerykeion (caduceus); the Acheruntian water of the nether world is indicated at his feet on the right. A quite similar device occurs on a carnelian Etruscan scarabaeus of older style,⁹² but the water is

striking resemblance to bees and wasps (mimicry) observed in certain species of the family Syrphidae, the maggots of which are found in decaying matter. J. H. and A. B. Comstock (*A Manual for the Study of Insects*, p. 471) say that a common representative of this family, *Eristalis tenax* (the "Drone-fly"), is often mistaken for a male honey-bee.

⁹¹ Furtwängler, *Die antiken Gemmen*, vol. i. Pl. xviii. No. 12.

⁹² Furtwängler, *loc. cit.*, vol. i. Pl. xvi. No. 54.

not indicated as it is on the last-mentioned one. On an Etruscan scarabaeus⁹³ of the fifth century B.C., Hermes, holding his kerykeion, is represented with a butterfly on his right shoulder (Fig. 44); and Furtwängler points out how interesting it is to find that at that early period already the butterfly was employed as a symbol of the human soul or Psyche.⁹⁴

It is noteworthy that the Etruscan "Charun," armed with his long hammer, seems never to occur on Etruscan gems, nor (it is supposed) on Etruscan mirrors. From the representations on the mural paintings of Etruscan tombs, on Etruscan sarcophagi, on painted vases, &c., we know that he was imagined as the inflexible and brutal-looking messenger of Death, who conducted the soul or shade (*εἰδωλον* of the Greeks, probably the "hinthial" of the Etruscans) of the deceased to the lower world. He corresponds more to the Hermes Psychopompos than to the Charon of the Greeks, and was evidently supposed to be in attendance in order to separate the soul from the body (this is probably why he holds the long formidable-looking hammer or hammer-like instrument) at the moment of death, like Azrael, the Jewish and Mohammedan "Angel of Death." The winged bearded deity appearing to fatigued Heracles, on an early antique intaglio, which was supposed by C. W. King to be a Charun-like representation of Death, is regarded by Furtwängler as Hypnos, the personification of Sleep.⁹⁵

⁹³ Furtwängler, *loc. cit.*, vol. i. Pl. xviii. No. 22.

⁹⁴ For other early instances of the butterfly being used as a symbol of the soul, see Furtwängler, *loc. cit.*, vol. iii. pp. 202, 203.

⁹⁵ See Furtwängler, *loc. cit.*, vol. i. Pl. xxx. No. 53. It is hardly surprising that in the interpretation of symbolic representations in ancient art there should have been occasional confusion between Death

In Etruscan death-scenes the Etruscan Charun is occasionally represented (see Fig. 45) accompanied by various Gorgon-like or Fury-like demons, sometimes holding snakes in their hands, including "Vanth," probably the Greek Thanatos (Θάνατος).⁹⁶ A somewhat



FIG. 45.—An Etruscan "parting scene" with the Etruscan "Charun" holding hammer and a winged demon holding snakes. From a painted vase (after Dennis).

similar winged Gorgon or Fury (but with four wings), holding a serpent in each hand, is represented on an antique gem figured by C. W. King.⁹⁷ Here we may refer to a carnelian scarab (in Berlin), figured by Furtwängler,⁹⁸ representing a winged figure bending forwards, holding an urn in both hands and apparently

and Sleep, "twin-brothers" as Homer calls them, when they carry off the body of Sarpedon, slain by Patroclus, to Lycia—*Iliad*, book xvi. line 671—Πέμπε δέ μιν πομπόισιν ἅμα κραινοῖσι φέρεσθαι, "Ἵπνῳ καὶ Θανάτῳ διδυμόσιν. Sleeping is, in a sense, "living without life," and dying during sleep has been poetically alluded to by the poet-laureate, Thomas Warton the younger, as dying without death—"sic sine morte mori." See also footnotes 74 and 84 in representations of Death and Sleep.

⁹⁶ See G. Dennis, *Cities and Cemeteries of Etruria*, London, 3rd edition, 1883.

⁹⁷ C. W. King, *Handbook of Engraved Gems*, 2nd edition, 1885. Pl. xlv. No. 6.

⁹⁸ Furtwängler, *loc. cit.*, vol. i. Pl. xix. No. 68.

about to lay it down (Fig. 46). Furtwängler suggests that this winged figure may represent the demon "Thanatos."

Certain representations of Hermes on antique gems are thought by Furtwängler⁹⁹ to relate to Pythagorean and Orphic¹⁰⁰ doctrines of a transmigration of souls (metempsychosis), doctrines probably originally derived from India and the East. Thus, on a carnelian Etruscan scarabaeus¹⁰¹ (Fig. 47), Hermes with his kerykeion



FIG. 46.—Winged figure holding urn. (After Furtwängler.)



FIG. 47.—Hermes summoning a soul from the lower world. (After Furtwängler.)

(caduceus) seems to be summoning a soul from the earth (or rather, from the lower world). On another Etruscan scarabaeus (of calcedony),¹⁰² Hermes seems to be calling up a soul from a large jar (pithos); a bearded head is seen emerging from the jar, which is perhaps intended to represent an exit from the lower world (Fig. 48). Furtwängler likewise figures several early Italian intagli,¹⁰³ on which Hermes (mostly with his

⁹⁹ Furtwängler, *loc. cit.*, vol. iii. pp. 202, 255 *et seq.*

¹⁰⁰ In regard to the Orphic doctrines of an existence after death, see especially the account of Orphic inscribed tablets of thin gold, found in tombs of Lower Italy, &c., in Miss J. E. Harrison's *Prolegomena to the Study of Greek Religion*, 2nd edition, Cambridge, 1908, pp. 572 *et seq.*, and the Critical Appendix by Mr. G. Murray.

¹⁰¹ Furtwängler, *loc. cit.*, vol. i. Pl. xviii. No. 55.

¹⁰² Furtwängler, *loc. cit.*, vol. i. Pl. xx. No. 32.

¹⁰³ Furtwängler, *loc. cit.*, vol. i. Pl. xxi. Nos. 64-72. C. W. King (*Handbook of Engraved Gems*, edition of 1885, Pl. lxxv. No. 1) describes a similar gem-type as: "Mercury, by the magic power of his caduceus, drawing up a soul from the Shades."

kerykeion) is represented "raising" souls or spirits out of the earth, the soul or spirit being indicated by a human head (Fig. 49), or by a head and upper portion of



FIG. 48.—Hermes calling up a soul. (After Furtwängler.)



FIG. 49.—Hermes raising a soul (After Furtwängler.)

the body. On two Etruscan scarabs,¹⁰⁴ Hermes appears to be placing a human head on the body of a swan or bird of some kind (Figs. 50 and 51). Furtwängler



FIG. 50.—Hermes placing a human head on the body of a bird. (After Furtwängler.)



FIG. 51.—Hermes placing a human head on the body of a bird. (After Furtwängler.)

thinks that these gems do not refer to mere magic or so-called "necromancy" (*νεκρομαντεία*), that is to say, the magical invocation or "raising" of ghosts or shades of the dead (for the purpose of obtaining information about the future), as believed in by the credulous of many ages and many countries. He supposes that the idea of metempsychosis is indicated,¹⁰⁵ and that Hermes is represented calling up souls from Hades that they may live again on earth.

A peacock, thought by Furtwängler to signify everlasting life, occurs not rarely on Roman intagli. It is

¹⁰⁴ Furtwängler, *loc. cit.*, vol. i. Pl. xix. Nos. 49, 50.

¹⁰⁵ Furtwängler, *loc. cit.*, vol. iii. pp. 254, 262.

represented alone or together with other birds; sometimes at a fountain or basin of water, or with a thyrsus.¹⁰⁶ It may be accompanied by a butterfly,¹⁰⁷ or may be apparently standing on a butterfly;¹⁰⁸ and in one case a peacock, a "hermes" of Priapus, and a butterfly are all represented on the same gem.¹⁰⁹ I have already pointed out that on some Roman gems the butterfly, especially the burning butterfly, appears rather to be an emblem of sexual love than an emblem of the soul, as if Psyche herself were regarded as merely a kind of "female Cupid." It seems as if in many Roman minds ideas of love (sexual love), the human soul, and immortality, were closely united.

In Imperial Roman times the peacock, as the special "bird of Juno," was sometimes placed on the reverse of coins of the "consecratio" kind, commemorating the "deification" or "immortality" of an Empress, just as the eagle, the special bird of Jupiter, was placed on similar ("consecratio") coins commemorating the deification of an Emperor. By the early Christians the peacock was adopted as a symbol of immortality, because it renews its tail-feathers every year, or for some imaginary reason.

We may here for convenience mention the numerous Roman Imperial coins with reverse types symbolic of "aeternitas." Eternity was represented in various ways: often by a veiled figure, standing, holding the heads of the Sun and the Moon in her hands, with an altar at her feet; by a figure of Ceres in a chariot; &c. The phoenix,

¹⁰⁶ Furtwängler, *loc. cit.*, vol. i. Pl. xxix. Nos. 57 (with thyrsus), 60; Pl. lxiv. Nos. 51, 52.

¹⁰⁷ Furtwängler, *loc. cit.*, vol. i. Pl. xxix. No. 55.

¹⁰⁸ Furtwängler, *loc. cit.*, vol. i. Pl. xxix. No. 61.

¹⁰⁹ Furtwängler, *loc. cit.*, vol. i. Pl. xxiv. No. 59.

as a symbol of eternity, appears on pieces of Constantine the Great and his children; and, needless to say, this fabulous bird has been much employed in Christian countries as an emblem of the resurrection.

A. F. Gori¹¹⁰ figures an antique gem (see Fig. 52), on which is engraved a man (countryman, peasant?) seated on a stone, with his right foot resting on a globe; he is piping on a double flute, and before him a skeleton dances grotesquely. Is this device meant to signify that the



FIG. 52.—Skeleton in dancing attitude before a man seated piping.
(After Gori.)

idea of death is not unpleasant or terrifying to the poor peasant, whose life in the country may be supposed to be a quiet and natural one, and who is therefore thought to be able, calmly, without anxiety, to meditate on and be ready for death; or does the skeleton signify the inmost part or essence of the man, namely, his innocent mind or soul, "dancing" in harmony with Nature's best music,

¹¹⁰ Gori, *Museum Florentinum*, Florence, 1731, vol. i. Pl. 91, No. 3.

the music of a pure and happy life? On the whole, however, I think the skeleton was more probably meant to represent a malevolent ghost or spirit (one of the "larvae," an "ossea larva" of Ovid), and the device of the piping man was intended to show that any one leading a natural life with innocent pleasures had no occasion to fear the apparition or malignant interference of ghosts or evil spirits. On the other hand, a contrast was possibly intended, the man being represented unaware or unmindful of some threatening danger or disaster, connected with the appearance of the skeleton. All this is, after all, mere fancy, and I do not know any certain interpretation of the gem, which may also have been used as an amulet supposed by some talismanic virtue to protect the bearer.

Furtwängler¹¹¹ figures some early Italian and Roman intagli representing one or two peasants (rustics) standing by a skull, on which there is sometimes a butterfly. It is possible that this type refers to the calm meditation supposed to be associated with a country life.

In this connexion one should, however, note the existence of many gems representing one or more persons looking at a human head. Superficially some of them resemble those just mentioned (representing a man standing by a human skull), but on several of them the head is evidently speaking or prophesying (sometimes the mouth is open), and a man is writing down the (prophetic?) words uttered. Furtwängler¹¹² figures

¹¹¹ Furtwängler, *loc. cit.*, vol. iii. p. 252; and vol. i. Pl. xxii. Nos. 12, 15; and Pl. xxx. Nos. 46-48. Needless to say, the word "Italian" is not usually employed in England in the sense in which Furtwängler uses it in his description of antique gems.

¹¹² Furtwängler, *loc. cit.*, vol. iii. pp. 245-252; and vol. i. Pl. xxii.

several such gems, one of them an Etruscan scarabaeus of the finest style, the others early Italian intagli of the kind immediately succeeding the Etruscan scarabaeus. He thinks that the type may relate to Orpheus legends. C. W. King described a gem of the kind as representing an Etruscan sorcerer raising a ghost in order to give responses to those consulting him. On the gems on which two or more persons are looking at (and listening to) the head, one of them has a stick or wand in his hand, and either points out the head to the others and explains what it is saying, or else is a magician who has "raised" the head from the infernal regions so that it may reveal the future to his clients (ordinary necromancy, *νεκρομαντεία*).

In regard to superstitions connected with death and the idea of a future existence, we may here mention that there are several antique gems which have been supposed to represent human sacrifices, but it is generally difficult to be sure that such gems are not merely representations of mythological incidents.¹¹³

One may here also refer to the numerous ancient Egyptian amulets, not rarely cut in gem-stones, that have been found with mummies. They were placed either on the mummified body itself or between the mummy swathings, and were intended to help the deceased in his future existence. Amongst the amulets (dating from early Egyptian civilization to Ptolemaic times) of this class exhibited in the British Museum are: scarabs, or beetles, representing new life and

Nos. 1-9, 13, 14 (all in early Italian style immediately succeeding the Etruscan scarabaeus); and Pl. lxi. No. 51 (an Etruscan scarabaeus of the finest style).

¹¹³ See Furtwängler, *loc. cit.*, vol. iii. pp. 229, 260.

resurrection; heart-amulets to protect the heart (to the protection of which chapters xxvii.-xxx.B of the Book of the Dead are devoted); the serpent's head, protecting its wearer against the attacks of worms and snakes in the tomb; the human-headed hawk, assuring to the deceased the power of uniting his body, soul and spirit, at will; the ladder, representing the ladder by which Osiris ascended from earth to heaven; the two-finger amulet representing the fingers (index and middle fingers) which Horus used when he helped his father Osiris up the ladder which reached from earth to heaven; the steps, symbolic of the throne of Osiris, and obtaining for the wearer exaltation to and in heaven; the buckle or "girdle of Isis;" the pillow or head-rest (usually made of haematite); the papyrus sceptre; &c.

In this connexion also the subject of "Charon's money" may be alluded to. In Ancient Greece a small coin, such as an obolus or "danacé," was placed between the teeth of a corpse; it was intended to serve as a charm (see ADDENDUM) or as Charon's fee for ferrying the shade of the departed across the rivers of the lower world. Certain very thin circular embossed plates of gold ("gold bracteates" of modern numismatists) were likewise buried with corpses, doubtless to serve a similar purpose, or in some way to help the deceased in his future life in the world below. I had two such gold "bracteates" in my collection, one with a simple rosette pattern, the other with a figure of Triptolemos seated in his winged car ("dragon-chariot") drawn by serpents. The latter was apparently made by pressing a thin sheet of gold over the obverse of a bronze coin of Eleusis in Attica of the type which I have already described in Part III. (see Fig. 10).

The use of Charon's obolus or "danacé" is alluded to by several ancient authors (*e.g.* Pollux, ix. 82), and Lucian (*De Luctu*, 10) ridiculed the custom, asking how people knew whether Attic, Macedonian, or Aeginetan obols passed as current coin in the infernal world. In spite, however, of Lucian's ridicule, the custom of placing coins in the mouth of the dead survived from Ancient Greece, through Roman and Byzantine ages, to modern times in Rumelia and Anatolia.¹¹⁴ The worthless nature of the coins or coin-like objects employed in this way is apparently indicated by certain passages of Pherecrates and Hesychius, and reminds one of the tinsel-like character of jewellery and ornaments manufactured exclusively for sepulchral purposes.

FINGER-RINGS,¹¹⁵ JEWELS, &C.

A death's head occasionally formed the bezel of a so-called "decade ring," that is to say, a finger-ring with ten projections to serve the devotional purpose of a rosary. In some of these decade rings, like one in the British Museum (seventeenth century?), the death's head is enamelled white and attached to the ring by a swivel mounting. Rings decorated with death's heads, skeletons, and such-like, used to be occasionally worn by persons who were, or affected to be, of a serious turn of mind, in the same

¹¹⁴ See also the ADDENDUM, at the end.

¹¹⁵ For information concerning memorial rings that I have not seen myself, I am greatly indebted to Sir John Evans's pamphlet on *Posy Rings* (London, 1892), to the chapter on "Memorial and Mortuary Rings" in Mr. W. Jones's *Finger-Ring Lore* (London, edition of 1898), and to the section entitled "Facts about Finger-Rings," in Mr. F. W. Fairholt's *Rambles of an Archaeologist* (London, 1871). There are many memorial and mourning rings in our great London Museums, and Sir John Evans kindly showed me those in his collection.

way as in Holbein's picture, already referred to, known as "The Ambassadors," Jean de Dinteville, Lord of Polisy, is represented wearing a *memento mori* jewel (a silver death's head set in gold) as a cap-piece. Dr. Martin Luther is said to have worn a gold finger-ring with a small death's head in enamel, and the words, "Mori saepe cogita" ("Think often of death"); round the setting was engraved: "O mors, ero mors tua" ("O death, I will be thy death").¹¹⁶ In the collection of the Rev. W. B. Hawkins was a gold official ring of the Grand Master of the Order of St. John of Jerusalem (Malta), with skeleton, scythe, and hour-glass in enamel, on the bezel, and with death's head and crossed bones on the shoulders. Rings with a death's head are said to have been in favour amongst the English Puritans.¹¹⁷ A gold ring engraved with a death's head, the words "Memento mori," and the initials J.B., was found in

¹¹⁶ Cf. *St. John*, chap. xi. 25, 26: "I am the resurrection and the life: he that believeth in Me, though he were dead, yet shall he live: and whosoever liveth and believeth in Me shall never die." Compare also St. Paul's *First Epistle to the Corinthians*, chap. xv. 54: "Death is swallowed up in victory"—i.e. "Mors Christi, mors mortis mihi."

¹¹⁷ W. Jones (*loc. cit.*, p. 551) says: "By a strange inconsistency the procuresses of Queen Elizabeth's time usually wore a ring with a death's head upon it, and probably with the common motto, 'Memento mori.'" He quotes John Marston, who, in *The Dutch Courtezan* (1605), says: "As for their (loose women's) death, how can it be bad, since their wickedness is always before their eyes, and a death's head most commonly on their middle finger?" E. C. Brewer (*Dictionary of Phrase and Fable*, 1904 edition, p. 338), in support of a similar statement, quotes a passage in Massinger's play, *The Old Law* (act iv. scene 1): "Sell some of my cloaths to buy thee a death's head, and put upon thy middle finger. Your least considering bawds do so much." However, as Mr. C. H. Read tells me, it seems *prima facie* improbable that such a custom should really have existed. Is the true explanation to be found in the probable fact that some procuresses, &c., of the time wore death's-head rings in order to give themselves the appearance of leading a religious and meditative life, just as some criminals of modern times have been notorious church-goers?

1765 amongst the ruins of the North Gate House on Bedford Bridge, and has been supposed to have belonged to John Bunyan (1628-1688), who was imprisoned there. According to Fairholt,¹¹⁸ skull and skeleton decorations for rings and similar *memento mori* devices on jewellery came into regular fashion at the Court of France when Diane de Poitiers, who was then in widow's mourning, became mistress of King Henry II.

Shakespeare, in his *Love's Labour's Lost* (act v. scene 2), makes Biron compare the countenance of Holofernes to "a death's face in a ring;" and death's-head rings (with inscriptions such as "Memento mori," or "Respice finem") are likewise alluded to by Beaumont and Fletcher in *The Chances*: "I'll keep it as they keep death's heads in rings, to cry *Memento* to me." Shakespeare may have been thinking of a similar kind of *memento mori* ring, when in the First Part of Henry IV (act iii. scene 3) he makes Falstaff say to Bardolph, "I make as good use of it (Bardolph's face) as many a man doth of a death's head or a *memento mori*;" and again in the Second Part of Henry IV (act ii. scene 4) when Falstaff says to Doll Tear-sheet, "Peace, good Doll! do not speak like a death's head; do not bid me remember mine end."

Memento mori devices and inscriptions were more frequently adopted for memorial rings and mourning rings, bequeathed or given away at funerals. Many such memorial rings were designed to serve the double purpose of a memorial of the dead and a *memento mori* for the living. Many of them have a death's head enamelled or engraved on the bezel; in some rings of

¹¹⁸ F. W. Fairholt, *Rambles of an Archaeologist*, 1871, p. 148.

more elaborate and delicate workmanship, the bezel itself is in the form of a minute skull, enamelled white; in others again the skull is engraved in cameo on a gem-stone mounted in the bezel; in the less expensive rings the death's head was occasionally of mother-of-pearl, &c. Some have the shank or whole ring enamelled or chiselled with figures of skeletons, skulls, and crossed bones, &c. In the British Museum there is an English gold enamelled ring of the seventeenth century, the bezel of which consists of a small case, made to open on a hinge, and containing a minute death's head in white enamel. Fairholt illustrates a gold enamelled ring now in the British Museum, formed by two figures of skeletons supporting a miniature sarcophagus, the lid of which was made to slide off so as to show a tiny skeleton in the interior.¹¹⁹ In another ring the bezel carried a coffin-shaped crystal engraved with the figure of a skeleton. "Skull-decorations" were also sometimes used for the chiselled or enamelled backs of small seals or signets, such as that figured in Paul Lacroix's *Arts in the Middle Ages* (English edition by Sir W. Armstrong, p. 135, Fig. 139). In some memorial rings an actual piece of bone (presumably human bone) has been inserted in the gold, behind the bezel or elsewhere.

Memorial and mourning rings bear such inscriptions as: "Memento mori;" "Remember death;" "Live to die;" "Dye to live;" "Breath paine, Death gaine" (in the collection of the late Sir John Evans); "As I am, you must bee" ("Quod es fui, quod sum eris"); "Hodie mihi, cras tibi" (on a seventeenth-century specimen in the British Museum); "Death sy myn eritag" (on a

¹¹⁹ F. W. Fairholt, *Miscellanea Graphica*, London, 1856, pl. x. Fig. 2.

sixteenth-century gold ring); "Nosse te ypsum;"¹²⁰ "Prepare for death;" "Prudenter aspice finem;" "Behold the ende;" "Oritur non moritur;" "Prepare to follow R. J.;" "I am gone before;" "Prepared be to follow me" (on two memorial rings of King Charles I of England, in the British Museum); "Eram non sum;" "Heaven is my happyness;" "Not lost, but gone before" (eighteenth century); "Fallen to rise" (eighteenth century); "Omnia vanitas" (eighteenth century).

Mr. W. T. Ready tells me of a finely made old German memorial ring, which he has seen, bearing a Latin inscription signifying, "Death opens the gate of life." A sixteenth-century gold ring exhibited in the Victoria and Albert Museum has a hexagonal bezel with a death's head enamelled on it and the inscription, "Nosse te ypsum" ("Know thyself"); on the edge of the bezel is a second inscription, DYE TO LYVE. Another sixteenth-century gold ring to be seen in the same Museum has a death's head in enamel on its hexagonal bezel surrounded by the inscription, "Behold the ende;" on the edge of the bezel is another inscription, "Rather death than fals fayth."¹²¹ A large

¹²⁰ Γνώθι σεαυτόν ("Nosce teipsum," "Know thyself"), the "Heaven-sent" words (*vide* Juvenal, *Sat.* 11, 27) inscribed over the portico of the great temple of Apollo, at Delphi, though they have not actually a *memento mori* significance, are frequently associated with *memento mori* sentences, the idea being that those who learn to know themselves are ready for death whenever death comes. The Greek saying has been enlarged in the Arabian: "Who knows himself knows his God" (see *Abhandlung über die Siegel der Araber, &c.*, by Freiherr Hammer-Purgstall, 1848, p. 49, note). "Nosce teipsum" perhaps suggested the "See yourself as you are" on Solario's painting (dated 1505) of Giov. Cristoforo Longono, of Milan, now in the London National Gallery:—

"Ignorans qualis fueris, qualisque futurus,
Sis qualis, studeas posse videre diu."

¹²¹ This ring, like several others in various collections, was said to

gold ring found in 1780 by the sexton of Southwell Church, and supposed to have belonged to one of the Knights Hospitallers of Winckbourne, bore the following motto deeply cut on the inside: + MIEV + MORI + QVE + CHANGE + MA + FOI + ("Better to die than change my faith"—cf. family motto, "Mutare fidem nescio").

Some of the memorial rings of King Charles I of England are of curious workmanship and design. One that belonged to Horace Walpole has the King's head in miniature, with a death's head between the letters C.R. in front, and the motto, "Prepared be to follow me." Another has a death's head, with an earthly crown below it, and the word VANITAS (on one side); above the death's head is a celestial crown with the word GLORIA (on the other side).¹²² It contains the miniature portrait of the King, and is inscribed, "Gloria Angl. Emigravit," with the date (old style) of the King's execution. Two other rings bear the King's portrait and the inscription, "Sic transit gloria mundi." Another gold ring had the King's portrait in a little case (forming the bezel), on the outside of which the four cardinal virtues were represented in enamel; on the inner side of the lid, a skull and crossed bones were enamelled.

Izaak Walton, in a codicil to his will (1683), fixed both the value of his memorial rings and the legend they were to bear. The value was to be 13s. 4d., and on those given to his family the words or mottoes were to be,

have been given by King Charles I of England on the day of his execution to Bishop Juxon. But the ring itself is of earlier workmanship.

¹²² This device is similar to that on the reverse of a memorial medal (already described) on the King's death, and is illustrated by a passage in the *Icon Basilike*, commencing: "I shall not want the heavy and envied crownes of this world."

"Love my Memory, I.W., obiit;" and on one for the Bishop of Winchester, "A mite for a million, I.W., obiit;" and on those for other friends, "A friend's farewell, I.W., obiit." In all he bequeathed about forty rings. Speaker Lenthall (1591-1662) directed by will that "Oritur non moritur" should be inscribed on fifty gold rings to be given away in his family at his death; and Sir Henry Wotton (1568-1639) left to each of the Fellows of Eton College a gold black-enamelled ring with the motto within: "Amor unit omnia." W. Jones quotes the following clause from a will dated 1648: "Also I do will and appoint ten rings of gold to be made of the value of twenty shillings a piece sterling with a death's head upon some of them." It is probable that jewellers kept memorial rings of this kind in stock ready for inscriptions to be engraved on them as required.

Memento mori devices have occasionally been adopted for seals, and the backs of small seals or "signets," just as the shanks and other parts of finger-rings, were sometimes chiselled in *memento mori* fashion ("skull-decorations," &c.).¹²³ I have already alluded to the seal of Erasmus (a man's head, facing, on a boundary stone or terminus, with the inscription, CEDO NVLLI) with which he sealed his last will, dated at Basel, 1536; and I now picture it (Fig. 53) from the figure in Jortin's *Life of Erasmus*, together with an antique intaglio which belonged to Erasmus. The latter forms part of a finger-ring, and represents a bearded terminal head, or "Hermes," possibly the Indian Bacchus, in Hellenistic style, without any inscription; from this Erasmus

¹²³ One such signet is figured in Paul Lacroix's *Arts in the Middle Ages*, English edition, by Sir W. Armstrong, p. 135, Fig. 139.

apparently derived his idea of taking a terminal figure as a *memento mori* device (Fig. 54). The seal of the

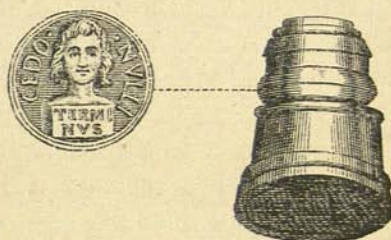


FIG. 53.—Seal of Erasmus with his "terminus" device. (After Jortin.)

Guild of Physicians and Surgeons at Delft was a skull with crossed bones, and the inscription, MEMENTO MORI.

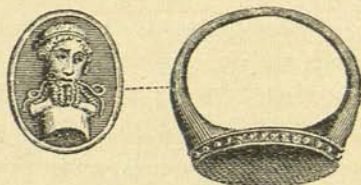


FIG. 54.—Finger-ring with an antique intaglio, from which apparently Erasmus derived the idea of his "terminus" device. (After Jortin.)

Inscriptions referring to death occur on a few Oriental seals.¹²⁴ Thus on a seal of Chosroës I (Nushirvan), the Great, of Persia (531-579 A.D.), there is said to have been a pessimistic inscription (such as might have

¹²⁴ There is some confusion between Oriental seals and Oriental talismans. A talisman may be a gem-stone engraved with an incuse Arabic inscription like a seal, but in a talisman the inscription should not be reversed as in a seal. Carnelians are favourite stones for Oriental seals, and are likewise used for talismans; in the latter case the incuse inscription is sometimes filled in with white enamel. Such carnelian seals, owing to the red colour of the stone, have been likened by poets to red wine and red lips, and kissing has therefore been playfully likened to sealing, and a kiss to the device known as "Solomon's seal."

been derived from *Ecclesiastes*) signifying: "The way is very dark, what can I see? One lives once only, what can I desire? Behind me is Death, what can delight me?" On the seal of Moawiyah II (683 A.D.), the third Caliph of Arabia of the Ommiad dynasty, there are said to have been words meaning, "The world is vanity." On the seal of Walid I (705-715 A.D.), the sixth Caliph of the same dynasty: "O Walid, thou art dead and shalt be brought to account." On the seal of Walid II (743-744 A.D.), the eleventh Caliph of the same dynasty: "O Walid, take heed of death."¹²⁵ An Arab seal of the Blacas Collection¹²⁶ bears an inscription signifying: "O Khalil, remember death, and put thy trust in God. That will be sufficient." For contrast with these seal-inscriptions a rather different *memento mori* idea may be quoted from one of the tales of the Caliph Haroun al-Raschid (Claud Field, *Tales of the Caliphs*, London, 1909, p. 81). Abu'l Kasim shows the Caliph his treasures, amongst which, on a throne of gold, the embalmed figure of their first owner is seated, with an inscription stating: "Whosoever shall see me in the condition I now am in, let him open his eyes; let him reflect that I once was living like himself, and that he will one day die like me. . . . Let him make use of it (the treasure) to acquire friends and to lead an agreeable life; for when the hour appointed for him is come, all these riches will not save him from the

¹²⁵ See *Abhandlung über die Siegel der Araber, &c.*, by Freiherr Hammer-Purgstall, 1848, pp. 6, 8, 9. I am indebted to Dr. Oliver Codrington for reference to this paper.

¹²⁶ J. T. Reinaud, *Description des Monuments Musulmans du Cabinet de M. le Duc de Blacas*, Paris, 1828, vol. ii. p. 292, and Pl. iv. No. 128. For this reference I am indebted to the kindness of Mr. J. Allan.

common destiny of men." In regard to passive fatalistic ("Kismet") attitudes towards death and the events of life (see Part II., Heading XVI.), another Oriental seal of the Blacas Collection¹²⁷ may be instanced, the inscription on which signifies that it is "of no avail to defend one's self against destiny."

Memento mori death's heads (sometimes pierced for use as rosary beads or for suspension in various ways) are met with in ivory, rock-crystal, amber, silver, &c. In the British Museum is an Ancient Mexican rock-crystal death's head, that is to say, a mass of rock-crystal cut and polished in the shape of a human skull. It is nearly if not quite as large as an average adult skull, and is referred to by G. F. Kunz in his *Gems and Precious Stones of North America* (2nd edition, 1892, p. 285), who says that similar skulls exist in the Blake Collection (United States National Museum), the Douglas Collection (New York), and the Trocadéro Museum (Paris). A much larger rock-crystal skull is in the possession of G. H. Sisson of New York, measuring $18\frac{3}{8}$ inches in length, $15\frac{3}{8}$ inches in width, and $15\frac{1}{8}$ inches in height. Kunz (*loc. cit.*, p. 286) adds that the making of these rock-crystal skulls may have been suggested by the real skulls, incrusting with turquoise, &c., such as the Christy specimen now in the British Museum. The actual purpose, however, for which the Mexican rock-crystal skulls were made appears to be unknown. It seems to me quite possible that they were in some way connected with Aztec religious observances. One may recall the descriptions of the "teocallis" or temples of Ancient Mexico, and the gruesome rites practised by the priests,

¹²⁷ J. T. Reinaud, *loc. cit.*, vol. ii. p. 28, Pl. i. No. 8.

as they appeared to the Spanish conquerors. Cortes and his companions, on their arrival in the city of Mexico, found that human sacrifices to the Aztec idols were of very frequent occurrence, and saw human hearts which had evidently quite recently been torn out of the bodies of unfortunate victims. From the terraces of a lofty teocalli on to which the Aztec "Emperor," Montezuma II, conducted them, they could enjoy the fine view over the surrounding country, but at the shrines the loathsome smears of blood and nauseous odour contrasted most unpleasantly with a dazzling display of gold and gems or precious stones.

Jean de Dinteville, Lord of Polisy, as represented in Holbein's picture (1533) known as "The Ambassadors," wore a hat-jewel formed of a silver skull set in gold. The enamelled gold hat-medallion (sixteenth century) in the British Museum, with the original owner's name, Carolus von Sternsee, bears an elaborate allegorical device (relating to the fickleness of fortune and the uncertainty of human life, and to the world, the flesh, the devil, life, death, &c.), in which both death (a skeleton) and the devil figure. Skulls, skeletons, and decaying bodies, as *memento mori* devices in jewellery, just as in paintings and engravings, were frequently represented with long worms, snakes, toads, &c., that is to say, being "eaten by worms," the idea having been doubtless chiefly suggested by the well-known passage in *Ecclesiasticus* (ch. x. ver. 11): "For when a man is dead he shall inherit creeping things, beasts, and worms."

In the British Museum are several *memento mori* carved ivories of the sixteenth and seventeenth centuries, mostly made as beads, or for suspension. One represents a human head and a human skull back to back; the

face of the former is "eaten by worms;" in the mouth of the latter a toad is visible; on the forehead of the face is the inscription in black letters, "à la saint . . ." on the frontal bone of the skull is: "point de devant à la mort."¹²⁸ Another of these ivories represents on one half a lady's head and on the other her skull, below which is a pair of scales.¹²⁹ Another has on one side the head of a woman (head-dress of the early sixteenth century), with the inscription: ELLAS NEST (?) IL POINT POSSIBLE TAN ECHAPER; below: MEMENTO; on the other side are the head and shoulders of a skeleton.¹³⁰ An elaborate one (of about 1600) has on one side the head of a moribund person, on whose forehead is a band inscribed, "dura et aspera;" on the other side is a skull with worms; below are two gold labels enamelled with INRI and MARIA; from the base hangs a small gold enamelled pendant representing two hearts crowned; at the top a small chain is attached for suspension.¹³¹ In the Victoria and Albert Museum (Mr. Pierpont Morgan's collection in the Loan Court) are exhibited some similar carved ivories (of the sixteenth century). Two have on one half the head of a man, and on the other half his bare skull.¹³² Another has on one side the head of a youth (sixteenth-century dress), and on the other side the upper part of a skeleton, with the inscription, COGITA MORI. Another has on one side

¹²⁸ *Catalogue of the Ivory Carvings of the Christian Era in the British Museum*, London, 1909, p. 148, No. 441.

¹²⁹ *Ibid.*, p. 148, No. 442.

¹³⁰ *Ibid.*, p. 149, No. 443.

¹³¹ *Ibid.*, p. 149, No. 444.

¹³² Mr. Henry Oppenheimer has kindly shown me a similar rock-crystal bead in his collection, representing on one side a human face and on the other side a skull.

the portrait of a woman, and on the other side the upper portion of a skeleton, with the inscription: V. QVOT (?) ERIS ("See what you will be"). Another represents the portraits of husband and wife, and on the other side (back to back with them), a skeleton with worms.

Here one may mention certain jewels, small bronzes, &c., bearing devices referring in one way or another to the subject of death. Mr. W. T. Ready has kindly given me an illustration (Fig. 55) of an early sixteenth-century



FIG. 55.—German shell-cameo of the sixteenth century.

German shell-cameo, which is circular, 1.1 inch in diameter, and mounted in a silver-gilt setting of the time. It represents a nude man and a nude woman seated facing, with a figure of Death, holding a scythe, standing between them in the background. The woman has two infants in her arms, one of whom is being seized by Death. Before the man is an anvil, on which he is hammering a child, whilst he grasps another child tightly between his knees. This device¹²³ appears to

¹²³ The arrangement of the device may have been suggested by some group representing Venus in the workshop of Vulcan.

me to represent a somewhat pessimistic view of life (man, woman, and children) and death. The child is thrust naked into the world to take part in the trials and penalties and pains of life, whether he wishes or not; death stands by, awaiting him, and often seizes him, not during his troubles, when he is being hammered on the anvil, but when he is happy and contented with life and does not wish to die. I would further explain the device by the help of the type on the medals (dated respectively 1458 and 1466), already described and figured (Figs. 13 and 14) in Part III., by Giovanni Boldu of Venice, representing a nude man seated, hiding his face with his hands, with a winged child and a skull before him. Compare the passage in Goethe's *Wilhelm Meisters Lehrjahre* (part i cap. xiii.) :—

“ Wer nie sein Brod mit Thränen ass,
 Wer nie die kummervollen Nächte
 Auf seinem Bette weinend sass,
 Der kennt euch nicht, ihr himmlischen Mächte.

“ Ihr führt ins Leben uns hinein,
 Ihr lasst den Armen schuldig werden,
 Dann überlasst ihr ihn der Pein,
 Denn alle Schuld rächt sich auf Erden.”

In this connexion another medal, made by Boldu in 1458, may likewise be referred to. It represents the artist's bust on the obverse, with inscription in Greek and Hebrew. On the reverse (Fig. 56) is a young man, nude, seated to left, resting his head on his right arm. Under him is a skull, and behind him an old woman is striking him with a whip. In front of him is a winged genius, standing, holding a cup. Above is the sun. The legend is: OPVS · IOANIS · BOLDV · PICTORIS · VENETI · MCCCCLVIII. This medal, cast in bronze,



FIG. 56.—Reverse (reduced) of a medal by Giovanni Boldu of Venice.
(After Heiss.)



FIG. 57.—Italian bronze statuette (fifteenth century?), representing an
allegory of life.

3·4 inches in diameter, is described by A. Armand (*Les Médailleurs Italiens*, 2nd edition, 1883, vol. i. p. 36, No. 2) and A. Heiss (*Les Médailleurs de la Renaissance*, Paris, 1887, vol. i., Venetian medals, pl. ii. No. 1).

I will here likewise refer to a little Italian bronze figure of Boldu's time (Fig. 57), for permission to illustrate which I am indebted to the kindness of Mr. Henry Oppenheimer, in whose collection it is. This bronze statuette (5·5 × 5 × 2·15 inches) represents a naked boy seated on the ground in a meditative attitude, leaning with his left elbow on an hour-glass, and with his right hand supporting a skull on his right knee; a snake issuing from the skull is coiled round the boy's arm. The base of the statuette is inscribed—

IL · TEMPO · PASSA · E · LA · MORTO (*sic*) · V(I)EN.
 GVARITO (?) LVI (?) · CHI · NON · FA · BEN ·
 FAC(CI)AMO · MAL · E · SPER(I)AMO · I(L) · BE(N) ·
 IL · TEMPO · P(A)SSA · E · LA · MO(RTE) · V(I)E(N) ·

The actual appearance of the part of the inscription for which the words "guarito lui" are suggested is:

ERTO LI

This inscription is apparently one of consolation for those who find life wretched or who take a pessimistic view of life, suggesting that when death comes it comes as a cure for the miseries of life. Mr. A. M. Hind has kindly directed my attention to a somewhat similar design in a Florentine woodcut by an unknown master of the fifteenth century, reproduced by G. Hirth and R. Muther in their work on *Meister-Holzschnitte* (Muenchen, 1893, Plate 31). The woodcut represents a naked boy leaning on a skull with an hour-glass on the trunk of a tree at his head and the inscription: LHORA PASSA.

A German medal of about 1634 by Christian Maler, which I omitted to describe in its proper place in Part III., may be mentioned here on account of the pessimistic type of its reverse, which likens human life to soap-bubbles, and might have been inspired by *Ecclesiastes*. The obverse is the same as that of Christian Maler's *memento mori* medal figured in Part III. (Fig. 25), which was copied from another medal (Fig. 23) supposed to relate to the death of Anna Cathrina, daughter of King Christian IV of Denmark. But the reverse (Fig. 58) represents a boy seated on



FIG. 58.

the ground, leaning on a death's head, and playing with soap-bubbles. Inscription: OMNES BULLÆ SUM(VS) INSTAR ("We are all like a bubble");¹³⁴ in the exergue, C. PRIVIL. CÆ. C. M. (the ordinary signature of the medallist, Christian Maler). I am indebted for the illustration of this piece to the sale catalogue, by Otto Helbing of Munich, 1901, of the J. J. Schrott Collection, in which it formed No. 1443. My attention was kindly drawn to the existence of the piece by Mr. A. E. Cahn of Frankfurt-a.-M.

¹³⁴ Cf. the Greek saying, Πομφόλυξ ὁ ἄνθρωπος ("Man is a bubble").

In Thomas Wright's introduction to Fairholt's *Miscellanea Graphica* (London, 1856, p. 63), a curious seventeenth-century jewel in the Londesborough Collection is illustrated, which appears to have belonged to King James I of England. It is a silver apple containing a small skull, the top of which opens like a lid. Inside the skull are representations of the Creation and the Resurrection, with the inscription: "Post mortem vita eternitas."

Watches of the seventeenth century were occasionally made in the form of a death's head, so as to serve *memento mori* purposes, reminding one that with every hour one is nearer one's end, and that hours misspent cannot be regained. In this respect they resemble old sun-dials and clocks with quaint *memento mori* inscriptions. Compare the words of Thomas à Kempis, "Memento semper finis, et quia perditum non redit tempus"—which could have been used for an inscription on a sun-dial or a clock.

Amongst *memento mori* jewels in the British Museum are locket-like pendants (seventeenth century) shaped like a coffin, containing the minute figure of a skeleton. One of these coffin-shaped pendants is of gold, enamelled, bearing the words, COGITA MORI VT VIVAS ("Think of dying so that you may live"). Another in silver is inscribed with the name of the deceased. A locket-like memorial pendant of a later date in the possession of Lady Evans is in the shape of a minute coffin; the lid is made to open on a hinge, and in the inside is some hair in an ornamental border of gold thread, with a death's head (there were originally doubtless two death's heads) and the initials P.B. in fine gold wire; the back is inscribed: "P.B. obit y^e 17 Mar: 1703 Aged 54 years."

A little pendant (early seventeenth century) in the British Museum is of gold and enamel in the form of a

skull;¹³⁵ in the interior of the skull, which opens on a hinge, is a minute enamelled figure of a skeleton with an hour-glass under its neck as a pillow. A small heart-shaped memorial locket of gold, enamel, and gold thread ornamentation (late seventeenth century) represents a skeleton emerging from a tomb, with an angel on either side, trumpeting the resurrection; below is the monogram of the deceased, with the inscription, COME YE BLESSED. A small memorial brooch of the same period and kind of work bears the device of a figure seated at a table with open book, candle, and death's head; and the legend, LEARN TO DIE. A small eighteenth-century mourning brooch exhibited in the Victoria and Albert Museum has a miniature painting of the deceased's relatives mourning at his tomb, in the usual style of the period, with the inscription, HEAVEN HAS IN STORE WHAT THOV HAST LOST.

In conclusion, I wish to express my great indebtedness to all those who have assisted me, especially Mr. H. A. Grueber, Mr. Warwick Wroth, Mr. G. F. Hill, Mr. J. Allan, Mr. C. H. Read, Mr. R. L. Binyon, and other officials of the British Museum; the late Sir John Evans, President of the Royal Numismatic Society, Lady Evans, Dr. H. R. Storer, Dr. Oliver Codrington, Dr. Ernest Schuster, Mr. Alfred Schuster, Dr. J. P. zum Busch, Mr. W. T. Ready, and Mr. L. Forrer; and, needless to say, the authors of the numerous books and papers to which I have referred.

F. PARKES WEBER.

¹³⁵ It is figured in F. W. Fairholt's *Miscellanea Graphica* (London, 1856, Pl. i. Figs. 3, 4) from the Londesborough Collection, but is now exhibited in the Gold Ornament Room of the British Museum.

ADDENDUM.

WITH the admonitory devices and inscriptions on sepulchral monuments and memorial medals, finger-rings, &c., may be compared some of those on funeral palls. The hearse-cloth or state pall of the Vintners' Company of London, still preserved at the Company's Hall, bears, amongst other devices in embroidery, four representations of Death, supporting a coffin with one hand, and in the other holding a spade. Above these four figures are labels with the following inscriptions: (1) "Morere ut vivas," *i.e.* "Die so that you may live (for ever);" (2) "Mors p(ec)catoru(m) pessima," *i.e.* "The death of sinners is most wretched;" (3) "Moriri disce quia morieris," *i.e.* "Learn to die because you shall die;" (4) "Mors justoru(m) vita a(n)i(m)aru(m)," *i.e.* "The death of the just is the life of souls." Similar state hearse-cloths are in the possession of several other City Companies: the Merchant Taylors' Company possess two; the Ironmongers', the Fishmongers', the Brewers', the Saddlers', each possess one.

CHARON'S MONEY.

For a notice on the subject of the "danacé," and "gold bracteates," see especially E. Babelon's *Traité des Monnaies Grécques*, vol. i. part i. (1901), pp. 514-519, and pp. 629-633. See also A. Sortin-Dorigny, "Obole funéraire en or de Cyprique," *Revue Numismatique*, Paris, 3rd series, 1888, vol. vi. p. 1. For these references I am indebted to the kindness of Mr. W. Wroth. If Mr. J. C. Lawson (*Modern Greek Folklore and Ancient Greek Religion*, Cambridge, 1910, pp. 111 *et seq.*) is right in supposing that the coin or coin-like object placed between the teeth or in the mouth of a corpse was ever intended to serve as an amulet to prevent an evil spirit from entering, or the soul of the deceased from re-entering, the dead body, then of course the ancient custom of providing the dead with "Charon's money" may indeed be regarded as to some extent connected with the Eastern European belief in "vampires."

F. P. W.

MISCELLANEA.

THE MONOGRAM BR OR RB ON CERTAIN COINS OF CHARLES I.

I WOULD venture to suggest that the attribution of these pieces to Bristol should be reconsidered in the light of the undermentioned facts. The coins bearing this cipher in the lower part of the field or in the legend were originally regarded as a product of the mint at Oxford, but were transferred to Bristol by Hawkins (cf. 3rd edit., p. 326), who dismisses the Oxford tradition as altogether mythical. It is possible, however, that the author would not have advocated the attribution to the western city if the evidence which is now available had been at his disposal when writing. Ruding, it may be added, expresses a similar but less decided opinion in vol. iii. p. 106.

In the Bodleian Library (Rawlinson MSS. D 810) is Thomas Baskerville's topographical description of Oxford in the latter part of the seventeenth century. The writer gives an account of many of the Colleges and their *alumni*, and when describing St. John's he makes the following statement:—

"I am informed by my worthy friend Mr. Richard Rod y^e when King Charles y^e first had his residence in Oxford in y^e time of our Civil wars, the King wanting cash to pay his soldiers he was necessitated to send for the colledge plate to coyne money and accordingly had it delivered to him, but St. John's colledge people being loath to loose the memory of their Benefactors gave y^e King a sūme of money to y^e value of it, and so it staid with them some time; but y^e King's urgent occasions for money still pressing him forward he sent to demand it a second time and had it, upon wch y^e King ordered the rebus of Richard Bayly the then President of St. John's, 1644, to be put on y^e money coyn'd with y^e plate; Mr. Rod did help me to half a crown of this money wch had y^e rebus of Rich. Bayly on both sides, viz^t under y^e King a horseback on one side, and under this motto Rel. Pro. Le. Ang. Lib. Par and under 1644, on y^e other side."

(The whole of the MS. has been printed by the Oxford Hist. Society in *Collectanea*, vol. 4, p. 197.)

Baskerville wrote his pages in 1684, not quite forty years after the capitulation of Oxford, but he does not mention the year in which Rod communicated the information and obtained the specimen of the coinage. We have here, then, almost contemporary testimony from a man who lived near Oxford, and who had friends, as he tells us, among the senior members of the college in question, from whom it would have been easy to obtain confirmation or contradiction if he had felt doubtful. Unless Baskerville's informant was misled by coins brought from Bristol, which is almost inconceivable, it appears to be a fair inference that at some date prior to 1684 there was a belief in Oxford that the plate from St. John's had been ear-marked at the local mint in the manner described.

Let us now see how far the archives of that college support the particulars furnished by the Bodleian manuscript.

The fourth report of the Historical MSS. Commission (*App.*, p. 466) deals with the records of St. John's, from which I have extracted such facts as are material.

The report cites a letter from Charles to the President and Fellows on Jan. 6, 1643, asking for the college plate to be delivered for melting down. Repayment is to be made at the rate of 5*s.* per oz. for silver, and 5*s.* 6*d.* for silver gilt, "as soon as God shall enable us." The authorities unanimously consent, adding a request that a considerable part of the plate should be coined for the use of the college so that they might answer the debt contracted for their new building, etc. Then follows a receipt from the wardens of the Oxford Mint (date not mentioned) for 176 lbs. 2 ozs. 10 dwts. of white plate, and 48 lbs. 1 oz. 10 dwts. of gilt, coupled with a memorandum that the President and Fellows had reserved £300 for the use of the college, which sum the Wardens promise to pay to them. The report also notes that St. John's had previously lent £800 to the King (when he was at York); this earlier payment may have given rise to the statement that the college had, in the first instance, compounded by handing over an equivalent amount of cash. The value of their surrendered plate, on the basis of the King's offer, works out at £688 approximately, but there is no clue as to whether the college did in fact receive the agreed sum of current coin. This documentary evidence shows that St. John's was exceptionally favoured in respect of its silver treasure, as I can find no trace of any such concession being attached to the receipts given to other Foundations in 1643.

To support the case for Oxford as against Bristol, it is, of course, necessary to read the monogram as RB instead of BR, and having regard to the form of the cipher I would submit that the subordinate position of the R, which is represented only by a reversed stroke on the lower loop of the B, indicates an intention to denote the Christian name of Dr. Bayly; the first letter of his surname would naturally occupy the chief portion of the cipher.

As regards the type of the coins assigned to Bristol, it is fortunate that no difficulty stands in the way of a re-transfer to Oxford, if such a step should be approved on other grounds. All writers admit that the Bristol type very closely resembles that of Oxford at a parallel date, hence the earlier attribution to the latter city.

To sum up the points which I wish to make: (1) the information imparted to Baskerville before 1684; (2) the records at St. John's showing that an unusual transaction was negotiated with Charles; (3) the similarity of type; (4) the absence of any proof from Bristol sources that these coins were struck there.

H. SYMONDS.

FIND OF COINS AT WINTERSLOW, NEAR SALISBURY.

A SMALL hoard of coins was dug up in a garden at Winterslow, near Salisbury, on March 10, 1910. It contained 50 shillings—one of Edward VI (mint-mark Ton), one of Philip and Mary (dated 1555), 14 of Elizabeth with mint-marks, Martlet, Cross crosslet, A, Escallop, Hand, Ton, Woolpack, 2; 10 of James I, with mint-marks, Thistle, Lis, Rose, Escallop, Mullet; 24 of Charles I, with mint-marks, Harp, Portcullis, Crown, Ton, Anchor, Triangle, Star, Triangle in circle. They were mostly in poor condition.

The hoard covers a period from 1551 to 1641 A.D.; just before the opening of the Civil War. As even the latest pieces of Charles I are somewhat rubbed, their burial may, however, not have taken place till after the beginning of the war. The absence of any coins of the local mints confirms their somewhat early burial.

G. C. B.

A FIND OF ROMAN COINS AT NOTTINGHAM.

WHILST some workmen were recently engaged in laying a gas-main in Nottingham City, they came upon an earthenware

vessel, or rather vessels, which contained some Roman silver and bronze coins. The depth of the excavation was a little under 3 feet, and the soil was sand with a loam covering.

The hoard consisted of nineteen silver, and forty-six bronze coins.

The silver coins were all denarii of the Imperial period, as follows:—Vespasian, 1; Titus, 1; Domitian, 1; Trajan, 4; Hadrian, 5; Antoninus Pius, 2; Faustina Senior, 3; Marcus Aurelius as Cæsar, 2.

In the report supplied by Mr. F. A. H. Green, the Town Clerk of Nottingham, to H.M. Treasury it is stated that the bronze coins were of the same reigns as the silver, with the exception that two pieces were of the reign of Nerva. As these bronze pieces were not treasure-trove, they were not forwarded to H.M. Treasury for examination.

The earliest of the silver coins belongs to 72-73 A.D. (Vespasian), and the latest specimens are a denarius of Aurelius (as Cæsar) of 157 A.D. (= "Trib. Pot. XI., Cos. II.") and one of Antoninus Pius (Cos. IV. and clasped hands), which may have been struck as late as 161 A.D. or as early as 144 A.D. It is probable, therefore, that this small hoard was hidden by its owner at the end of the reign of Antoninus Pius or early in the reign of his successor, approximately 161 A.D.

The silver coins were contained in a small earthenware pot made of a sort of iron clay, with a diamond pattern incised upon it. This pot was $3\frac{1}{2}$ inches high, and the outside diameter at the widest part was $3\frac{1}{4}$ inches. This vessel, together with the forty-six bronze coins, was placed inside a larger earthenware vessel (5 inches in diameter, internal measurement) made of a similar but not identical clay. On this larger pot there was an irregular incised pattern. In the course of the excavations the larger vessel had been thrown out with the soil from the trench, and as it lay there a workman stepped upon it, and another workman struck it with a long chisel, smashing both pots.

Mr. Green further reports that the land where the coins were unearthed was in old days undoubtedly forest-land, and until fifteen or twenty years ago it was a corn-field. It is situated at some distance from any known Roman road, and no trace had hitherto been found in Nottingham of a Roman station.

H. A. G.

NOTICES OF RECENT PUBLICATIONS.

Die Münzen von Pergamon, von Dr. Hans von Fritze. (Aus dem Anhang zu den Abhandlungen der kön. Preuss. Akad. der Wiss. 1910.) Mit 9 Tafeln. Berlin: Reimer. 1910.

THAT great stock, the Berlin Corpus Nummorum, although producing fruit in the shape of volumes less plentiful than could be wished, has thrown out certain secondary processes of considerable importance. Such were the articles by Dr. Gaebler on the Macedonian coinage; such was Dr. von Fritze's article on the autonomous coinage of Pergamon in *Corolla Numismatica*; and such is his monograph before us, the object of which is to propound the questions now at issue, on the basis of the present state of our knowledge, and answer them as far as possible. It is impossible here to give even a summary of the contents of the monograph, which is closely packed with matter. We note only a few disconnected points of interest. Although the essential lines of Imhoof-Blumer's arrangement of the Attalid silver coinage are preserved, the new material necessitates a slightly different arrangement of the issues of the first three rulers: Philetairos strikes with the portrait of Seleukos, Eumenes I with that of Philetairos wearing the fillet, Attalos I with the same portrait adorned with diadem and laurel-wreath combined (sometimes also with the laurel-wreath alone—this after his great victory over the Gauls). The beginning of the Pergamene cistophori is assigned to about 190 B.C. rather than to the reign of Attalos I. Reason is given for supposing that no Alexandrine coinage may have been struck at Pergamon, the Attalid issues sufficing for all purposes served by this international currency. Dr. von Fritze does not believe in the supposed portrait of Attalos I on Mr. Wace's tetradrachm, and the series which he shows seems to confirm his sceptical attitude. One of the most interesting results achieved is to prove that many of the copper coins hitherto attributed to Pergamon were struck at the cities in the Attalid dominions (mostly cistophoric mints), doubtless in connexion with the panegyris of Athena Nikephoros or Asklepios Soter. Most of the important types receive an explanation at the writer's hands; but he is baffled by one, which we had hoped he would explain, viz. the temple of Aphrodite of Paphos. What is this doing at Pergamon?

The veiled cultus statue, holding two branches, and another holding one branch and a Nike, are identified as the same

goddess, probably the Great Mother. Besides the Great Altar, which was first identified on the coins by M. Heron de Villefosse, a more modest structure is shown to be the altar erected to Demeter by Philetairos and Eumenes, and rediscovered in 1909. If the basin-like vessel with a high foot on a coin of Augustus is really connected with the gymnasium, it may possibly be not a washing-basin, but an oil-basin (cp. the coins of Anazarbus and other cities in Cilicia, *B.M.C., Lycaonia*, Pl. vii. 2, &c.). The custom of representing busts of deities in temples, referred to on p. 90, is very common at Phoenician mints, besides those mentioned by the author; the most remarkable instance is at Caesarea ad Libanum. Still, we cannot always argue that, because only the bust is represented on the coin, therefore the deity in the temple was actually represented in the same way; rather the bust was employed by the die-engraver to allow him to show details on a larger scale. But we have already exceeded our space, without, it is to be feared, giving any idea of the great value of the monograph.

G. F. H.

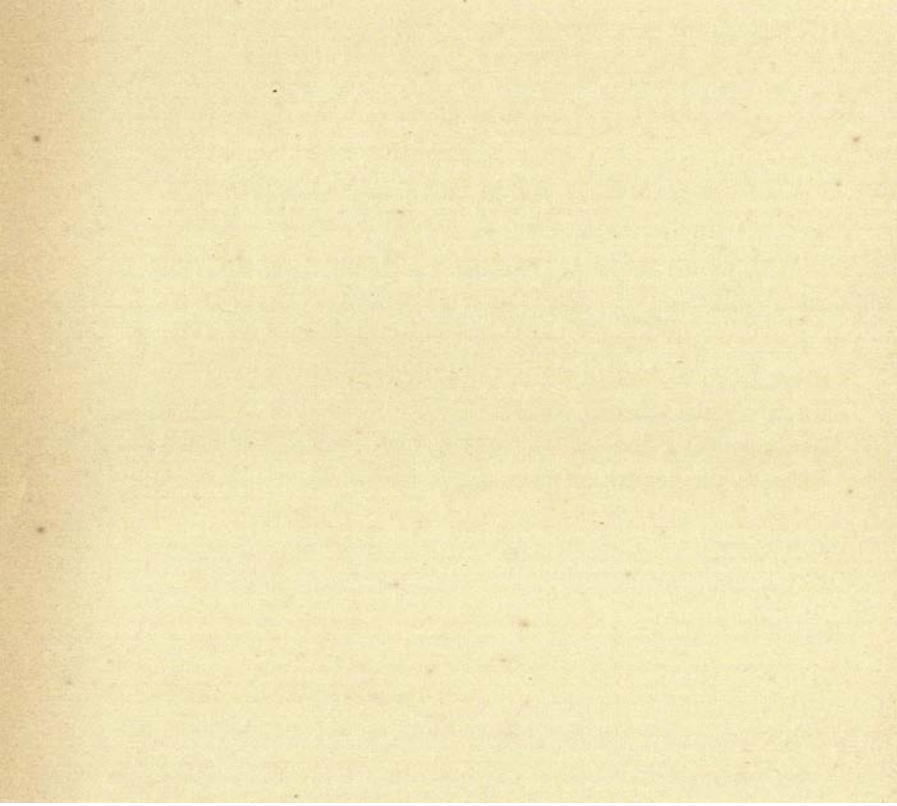
Die Münze in der Kulturgeschichte, F. Friedensburg. Berlin. 1909.

THIS little book is an interesting addition to numismatic literature, and ought to do much to extend interest in the subject. It professes to be a work for the general reader rather than the student, but the student of coins will find much to attract him in it. Dr. Friedensburg discusses none of the great problems of numismatics and avoids controversial points; his work is an attempt to show the place of coins in the history of civilization and their value as historical documents. The book is divided into seven sections, of which the first is introductory, dealing with the history of the study of coins and coin-collecting; the other chapters deal with coins as official and historical documents; as monuments for the history of religions; coins and commerce, a history of the development of coinage; coins and art, including medals and plaquettes; historical or medallion coins. The seventh chapter is perhaps the most important contribution to knowledge in the book; it deals with coins and folklore, treating of proverbial expressions, superstitions, &c., about coins, love-tokens, offerings, &c. A glance at the very full index will show the vast amount of information contained in the book. It is written in a light, readable style, and illustrated with 85 blocks of interesting coins.

J. A.

NAVAL COMMEMORATIVE MEDALS.

VICE-ADMIRAL PRINCE LOUIS OF BATTENBERG has under consideration the preparation of a work on NAVAL COMMEMORATIVE MEDALS of all nations and of all periods. He will be greatly obliged if his brother-Fellows of the Royal Numismatic Society will kindly furnish him with particulars of any such Medals which they may possess, addressed to him at the Society's Rooms, 22, Albemarle Street, W.



X.

METROLOGICAL NOTE ON THE COINAGE OF
POPULONIA.

THE standard of the weights of Populonia gives the necessary opportunity of demonstrating the foundation of the Roman or Central Italian standard. The long paper of Haeberlin in the *Zeit. f. Num.*, 1909, which requires so much patient following, seems to me to be beside the point. The standard of Central Italy is probably based upon the full weight of what may be called the Sardinian copper ingot, and the possibility of that weight being originally derived from Hittite, Egyptian, or Babylonian sources, may be left to theoretical and academic discussion.

It will not be surprising to those who have closely analysed Dr. Arthur Evans's article in *Corolla Numismatica*, upon *Minoan Weights and Currency*, to find that the true weight of the Sardinian ingot is obtainable from the information he there lays before us.

In the year 1902 the Italian Mission to Crete, under the direction of Professor F. Halbherr, discovered there a series of copper ingots.¹ These were found in a walled-up cellar of the Palace or Royal Villa at Hagia Triada, near Phaestos. The ingots were nineteen in number, arranged in five groups, one of five, three of four, and one of two. Five of these exhibited incised

¹ Evans, *Corolla Numismatica*, p. 358.

signs; and No. 11 in the list given below is figured by Evans; another, No. 13, by Pigorini.²

In passing, it will be well for the reader to note these signs, as they are important evidence in the mythological history of money.

The weights of these ingots, the numbers of which in the list given by Evans are retained, are as follows, in order of magnitude:—

15. 32,000 grammes.	1. 29,400 grammes.	17. 29,000 grammes.
10. 30,900 "	3. 29,400 "	18. 29,000 "
6. 30,700 "	4. 29,400 "	7. 27,900 "
9. 30,000 "	8. 29,400 "	19. 27,600 "
5. 29,900 "	14. 29,300 "	11. 27,300 "
2. 29,500 "	16. 29,200 "	13. 27,000 "
12. 29,500 "		

Nos. 11, 12, 13, 14, 15, have signs cut in their surface.

These weights show a definite indication of a standard lying somewhere between 30,000 and 29,000 grammes, certainly higher than 29,400 grammes, and, if anything, nearer to 29,500 than 29,400 grammes, as the maximum of a series of middle weights of a number is usually the most correct estimate of the standard. Now, Haeberlin estimates the talent of the common standard, which he calls Babylonian, but which I would call Minoan, if we may use that term as governing the islands of the Mediterranean³ generally, at an exact figure, 29,470·5 grammes.

This weight is fairly accurate, though possibly a gramme too heavy or too light, but for the sake of uniformity with the figures published by Haeberlin, and

² *Bullettino di Palehnologia Italiana*, 1904, pp. 102, 103.

³ "The Isles of the Great Circle," *Egypt. Ancient Records*, Breasted, vol. ii. 73. Tombos Stela of Thutmose I.

in view of the *Corpus* which he intends to publish, we will appropriate it without further comment.

We have, then, a standard weight slightly exceeding the amount of 29,400 grammes, and the ingots are evidently mostly of this calibre. It is probable, however, that No. 15 is of a higher standard.

Of this other standard there is evidence in the weights of the ingots found at Serra Nixi, in Sardinia, weighing

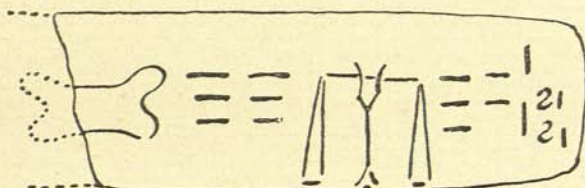


FIG. 1.—End of Inscribed Tablet, Knossos with Ingot and Balance.

33,300 grammes,⁴ and in what may be half-standard ingots found in the sea near Chalcis.⁵

The nature of the difference between the two standards is luckily given to us exactly by an inscribed tablet found in the Palace at Knossos.⁶

Evans interprets the inscription upon it as follows:—
“It shows, after the (copper) ingot sign, six horizontal lines, indicating sixty, according to the regular numeration in vogue in this class of linear script. This is followed by a balance; after which comes an indication of fifty-two units, and what seems to be a fraction of double character, probably representing one-half.”

We have, therefore, a distinct statement that sixty copper ingots of one standard weighed fifty-two and a half ingots of another. The higher standard would

⁴ Pigorini, *op. cit.*, p. 105.

⁵ Evans, *op. cit.*, p. 359.

⁶ Evans, *op. cit.*, p. 361, Fig. 14.

therefore be reduced by one-eighth, to make it equivalent to the Cretan.

We should, therefore, have to add one-seventh to the Cretan standard to obtain the higher one. This higher one should exist nearer to the provenance of the copper, one-eighth being probably deducted in transit.

Weight of the Cretan standard copper ingot	{ 454,791·66 grains 29,470·5 grammes }	Æ.
Addition of one-seventh	{ 64,970·24 grains 4,210·07 grammes }	Æ.
Weight of Sardinian standard copper ingot	{ 519,761·9 grains 33,680·57 grammes }	Æ.

If, therefore, the Cretan ingot was imported *via* Sardinia, the amount deducted to pay the expenses of the journey for freight and commission would be one-eighth.

It appears, however, that the Sardinian copper was itself imported,⁷ perhaps from Spain—*quien sabe?*—perhaps from Italy itself. We may, then, for the moment assume a customary toll in the copper trade of one-eighth, and we get a heavier ingot still.

Weight of heavy ingot	{ 594,013·6 grains 38,492·08 grammes }	Æ.
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Of this standard we have a light example in the ingot from old Salamis,⁸ which scales 37,094 grammes.

Whether this weight was native or foreign to Cyprus for its measure of copper, we need not inquire; it is sufficient to show that a higher standard did exist than that appropriate to Sardinia. For it must be remembered that the Egyptian copper of Sinai, as well as the native ore of Cyprus, were trade material of the Eastern Mediterranean.

⁷ Perrot and Chippiez, *Art in Sardinia*, I. p. 90.

⁸ Evans, *op. cit.*, p. 359.

Here, however, we have three standards, of which we have only discovered the lowest weight accurately represented.

It would be a natural circumstance, considering the various standards, that there should be a unit of weight of copper, in which all these could be measured. Such a unit is found in a small ingot obtained by the late Sir John Evans from Makarska, on the Dalmatian coast, in the year 1880.⁹ It was one of the objects contained in a small hoard, including a hammer, probably the belongings of a smith.

One of the horns of the ingot is wanting, but its approximate weight when restored would be

$$\left. \begin{array}{l} 1674.4 \text{ grains} \\ 108.5 \text{ grammes} \end{array} \right\} \text{Æ.}$$

The weight of $\frac{27}{10}$ of the Cretan ingot is $\left. \begin{array}{l} 1684.41 \text{ grains} \\ 109.15 \text{ grammes} \end{array} \right\} \text{Æ.}$, and this we may safely take to be the standard weight of this small ingot.

Now, there is almost irrefutable evidence of two series of weights, one within the basin of the Eastern Mediterranean, and the other outside its boundaries, the former weighing three-quarters of the latter. Whether this reduction of one-fourth was due to the cost of transit or not, is open to argument, but the fact of its existence is certain.

We may, therefore, take it for granted that if the trade weight of a copper ingot was 270 units within the Cretan sphere of commerce, the full weight at the source of supply was one of 360 units.

⁹ Evans, *op. cit.*, p. 360.

If such was the case, therefore, we should get the solution of the one-eighth reduction for transit from Sardinia to Crete, in the fact that Sardinia was the half-way stage between Crete and the source of supply. The reduction by one-fourth would be divided into two deductions, each amounting to one-eighth.

We should, therefore, get an original series of weights as follows:—

Ingot at source of supply	} 360 units.	Wt. { 606,388·88 grains ¹⁰ 39,294·0 grammes }	Æ.
Ingot after first journey (reduced by an eighth)	} 315 units. ¹¹	Wt. { 530,590·27 grains 34,382·25 grammes }	Æ.
Ingot before second journey	} 308 $\frac{4}{7}$ units.	Wt. { 519,761·90 grains 33,680·57 grammes }	Æ.
Ingot after second journey (reduced by an eighth)	} 270 units.	Wt. { 454,791·6 grains 29,470·5 grammes }	Æ.
Copper unit	.	Wt. { 1684·41 grains 109·150 grammes }	Æ.

¹⁰ There is an example of a direct derivative from this weight. The Olivieri Collection at Pesaro has an *as* weighing { 6023·15 grains
390·30 grammes } Æ. For this reference I have to thank Mr. H. A. Grueber, Keeper of the Coins, British Museum.

¹¹ This is Solon's coinage talent of 63 minas (63 × 50 = 3150) (Aristotle, *Constitution of Athens*, 10). It will be further noted that the half-weight ingots of copper found in the sea near Chalcis have a maximum of 17,640 grammes — 17,000 grammes (Evans, *op. cit.*, p. 359). It must be remembered that we have taken Haeberlin's common standard weight as a basis; perhaps if we took the Attic standard at { 132·89 grains
8·61 grammes } to the didrachm instead, we should have a more accurate result. The weight of talent taken here is equal to 4000 × { 132·65 grains
8·595 grammes } — if the suggested weight were taken,

$$4000 \times \left\{ \begin{array}{l} 132\cdot89 \text{ grains} \\ 8\cdot61 \text{ grammes} \end{array} \right\} = \left\{ \begin{array}{l} 531,562\cdot5 \text{ grains} \\ 34,445\cdot25 \text{ grammes} \end{array} \right\} \text{Æ.}$$

It will be noted that a deduction of the customary toll of $\frac{1}{8}$ from the Attic talent of 8000 drachms gives the Babylonian and Aeginetic talents each of 7000 Attic drachms, or 70 local Attic minas of 100 drachms.

The reduction between the two half-journeys of the copper bullion is due to the fact that the amount of copper, after the first deduction of one-eighth, is too much, by the difference between one-seventh and one-eighth, for the amount necessary to form a Cretan copper ingot by the second deduction of one-eighth.

In time, therefore, we should probably get a degraded series working back from the Cretan ingot; its primary series would be as follows:—

Weight of Cretan ingot	} 270 units.	Wt. { 454,791·66 grains 29,470·5 grammes }	} Æ.
Weight of "Sar- dinian" ingot (reduced)	} 308½ units.	Wt. { 519,641·59 grains 33,672·775 grammes }	} Æ.
Weight of supply ingot	} 352½ units.	Wt. { 593,755·78 grains 38,475·375 grammes }	} Æ.

We note here that we have very accurate approximations to the Sardinian ingots at Serra Nixi, and to the heavy example from old Salamis.

The importance of the Minoan standard as a starting-point for the Babylonian weights should be noted.

There are probably further degradations of this series; but for the moment we have proceeded far enough to determine the standard weights of the Etruscan series.

We have seen that the unreduced standard of the "Sardinian" copper ingot is { 530,590·27 grains
34,382·25 grammes } Æ.

It must be always borne in mind that the silver varies after the first issue from the mint, but that the gold is a constant weight, or intended to be such, for as Pollux

says, "a gold piece is always a stater."¹² Let us, therefore, take the gold weights of the Populonian coinage, and discover their unit. Sambon, *Monnaies Antiques de l'Italie*, and the *Collection Strozzi, Sale Catalogue*, Rome, April, 1907, are the best references.

Sambon, i. 1; Strozzi, 526. Wt. 2.83 grammes, 50 units.

Sambon, i. 2, 4, 5; Strozzi, 527, 530, 531, 532. Max. wt. 1.42 grammes, 25 units.

Sambon, i. 6, 7; Strozzi, 533-538. Max. wt. 0.58 grammes, 10 units.

Unit of gold, 0.058 grammes, or rather less.

Let us now divide the weight of the "Sardinian" copper ingot by 6, and we get the figures $\left\{ \begin{array}{l} 88,431.71 \text{ grains} \\ 5,730.375 \text{ grammes} \end{array} \right\}$ so that this gold unit is $\frac{1}{600000}$ of the copper ingot in weight.

The exact figure, therefore, of the gold coin, which represents 50 units is $\left\{ \begin{array}{l} 44.22 \text{ grains} \\ 2.865 \text{ grammes} \end{array} \right\} A$. We note that the maximum weight of 25 units is 1.42 grammes, and though the figures from Sambon would lead us to suppose that the weight of the piece of 10 units sometimes reached 0.60 grammes, yet the more accurate weighing of the Strozzi Catalogue reduces this weight to 0.57 grammes, which is as accurate a result as ordinary balances will attain.

¹² Pollux, ix. 59. Ridgeway, *Origin of Weights and Currency*, p. 308, discussing the stater: "Some were termed staters of Darius, some Philippians, others Alexandrians, all being of gold, and if you say *gold piece*, *stater* is understood; but if you should say *stater*, *gold* is not absolutely to be understood."

Turning next to the heavier silver, which is not represented in this collection, but which is described in Sambon, p. 41, we get a maximum weight of 11.45 grammes. If we divide the copper ingot by 3, we get the figures $\left\{ \begin{array}{l} 176,863.42 \text{ grains} \\ 11,460.75 \text{ grammes} \end{array} \right\}$, so that the silver coin is $\frac{1}{3000}$ of the copper ingot.

In the Strozzi Catalogue, No. 108, we have an excellent example of the "Dupondius," weighing 286 grammes \mathcal{A} . If we divide the copper ingot by 12, we get the figures $\left\{ \begin{array}{l} 44,215.86 \text{ grains} \\ 2,865.19 \text{ grammes} \end{array} \right\}$, so that this copper coin is $\frac{1}{120}$ of the ingot.

The ordinary silver coinage of Populonia next claims our attention. The fourth part of the copper ingot is $\left\{ \begin{array}{l} 132,647.57 \text{ grains} \\ 8,595.56 \text{ grammes} \end{array} \right\}$, giving a value to the silver of $\left\{ \begin{array}{l} 132.65 \text{ grains} \\ 8.596 \text{ grammes} \end{array} \right\} \mathcal{A}$., or $\frac{1}{400}$ of the copper ingot.

That this is the full original value of the common silver coinage of Populonia, we can judge from the figures given by Sambon: No. 26, 1 unit; max. wt. 0.85 grammes; No. 31, 5 units, max. wt. 4.21 grammes; No. 32, 2½ units, max. wt. 2.10 grammes; Nos. 35-67, 10 units (20 half-units) max. wt. 8.60 grammes.

We have, therefore, the certain fact that these weights were originally derived from the weight of the full "Sardinian" copper ingot, since each is a simple fraction of its amount.

We must here carefully note that we have two series of silver weights, one three-quarters of the other, which, as we have said, is customary on the boundary-line of the Phoenician sphere of influence.

The weights of Etruria would then arrange themselves as follows:—

Heavy silver coin of 10 scriptula } Wt. { 176·86 grains } *AR.*
 (Sambon, i. 11, 12) } { 11·46 grammes }

Based, perhaps, upon a gold weight of $\frac{2}{3}$ scriptula, of a value of { 117·91 grains } *N.* (*vide* Neapolitan and early Roman silver weights). In each case these weights are four-thirds of those of the common issues.

The rate of exchange would seem to be *N.* = 15 *AR.*, for
 $\left. \begin{matrix} 117\cdot91 \\ 7\cdot64 \end{matrix} \right\} \times 15 = \left\{ \begin{matrix} 1768\cdot6 \text{ grains} \\ 114\cdot6 \text{ grammes} \end{matrix} \right\}$, or $10 \times \left\{ \begin{matrix} 176\cdot86 \text{ grains} \\ 11\cdot46 \text{ grammes} \end{matrix} \right\}$

Accompanying this heavy series we may have a copper weight of

$\frac{4}{3}$ of { 4421·59 grains } or { 5895·45 grains } *Æ.*
 { 286·52 grammes } { 382·03 grammes }

It is, perhaps, noteworthy that Haeblerlin finds traces of this standard (*vide Zeit. f. Num.*, 1909, p. 59).

These heavier weights are not those of Populonia; but we may point out that the heavier silver is of the same weight as that of Corecra. So that in all probability this series must be attributed to the east coast of Italy, together with the heavy copper which is found at Picenum.

The normal series truly attributable to Populonia now differentiates out—

Gold : 100 units, 5 scriptula { 88·43 grains } *N.*
 { 5·73 grammes }

Coined examples : 50 units, 25 units, 10 units.

Silver : 10 units, 20 half-units, { 132·65 grains } *AR.*
 15¹² half-script. { 8·596 grammes }

Copper : 250 scriptula. Wt. { 4421·59 grains } *Æ.*
 { 286·519 grammes }

¹² Note Sambon, Nos. 41 and 51.

We should appear, therefore, to get the following equation:—

$$5 \text{ scriptula } \mathcal{A}. = 75 \text{ scriptula } \mathcal{R}. = 25,000 \text{ scriptula } \mathcal{Æ}. \\ \text{or } 12,500 \text{ scriptula } \mathcal{Æ}.$$

Coinage—1 unit $\mathcal{A}.$ = 10 units $\mathcal{R}.$ = 100 units $\mathcal{Æ}.$

$$\text{Scriptulum} = \begin{cases} 17.69 \text{ grains.} \\ 1.146 \text{ grammes.} \end{cases}$$

It is doubtful whether the copper unit of coinage is 286.519 grammes or 143.259 grammes.

The rates of exchange are therefore—

$$\mathcal{A}. = 15 \mathcal{R}. = 5000 \mathcal{Æ}. \\ \text{or } 2500 \mathcal{Æ}. \text{ (probably).}$$

A comparison with the actual weights will definitely show the accuracy of these figures. The reason of Haeberlin's failure to deduce the correct weights (his results are incorrect on the showing of his own figures, for the whole of the above deduction is worked out, for the sake of comparison, from his value of the talent of the common standard) is the usual one of anticipating a result which does not exist. He gives no evidence for the basis of his work, nor any sequence by which his weight-standards could have arrived in Central Italy. The method by which he appears to have reached a true figure for his starting-point must, I think, have been one of preconceived elimination. He would most probably have been able to correct his errors, had he not insisted upon taking an average for his weights. He would not then have taken his Royal Standard B, instead of the Royal Standard A, as a basis. That the latter is the original standard is clearly proved by the composition of the weight of the ingot, viz. 315 copper units. I cannot personally understand how an average can be considered

as a foundation for scientific work, for an average must be wrong.¹⁴

The safe principle is to rely implicitly upon the gold weight; if the rate of exchange varies, the gold weight does not,—only the silver and copper lose weight. The Roman gold weight was $\left. \begin{array}{l} 106.12 \text{ grains} \\ 6.876 \text{ grammes} \end{array} \right\} \Delta\text{V.}$ or six scriptula, in the years about 280 B.C.; hence the weight of the gold scriptulum did not change, and upon it all values must be based, for, as Pollux says, "a gold coin is always a stater," that is, a valuer.

J. R. McCLEAN.

POSTSCRIPT.

Since the above note was written, I have been informed that the fallacy of taking an average is not apparent to many numismatists.¹⁵ I will try to point out the reasons why this process must be misleading in numismatics.

The chief reason is that the mints and money-changers were not likely to give a heavier weight of precious metal than was necessary.

In addition to this, and besides the obvious remark that an average must be wrong, there is the possibility, and, in the case of the Central Italian copper weights, the certainty, that more than one standard may have been

¹⁴ There is a story told of the great engineer, Brunel, who, before giving an order for the first horse-boxes ever built for a railway, sent round to measure the length of horses. He took the average of the figures received, and had the horse-boxes built. The first horse that came along was too big to get in. So it is with these average weights. Take the first weight in the Strozzi Catalogue, No. 106, and it will not fit. If this story can prevent the use of averages except where they are obviously wanted as an estimate, science will have benefited. The average is useful only as evidence, when it is required; it establishes no fact.

¹⁵ In his Introduction to the *Cat. of Coins of the Roman Republic*, *Brit. Mus.*, pp. xx.-xxii., Mr. Grueber confirms my view as to the fallacy of taking averages as the basis of calculations. He, however, had not space there to point out that if Haebler's figures do not hold good, his whole theory falls to the ground.

employed. Hence, if an average be taken, not only are worn and false weights brought in, but also the different standards are added together. When these are divided up, they make a figure which, under no circumstances can be correct for more than one of the various standards.

I will give two examples of what I mean.

Take the note on the Egyptian gold standard in *Minoan Weights and Currency*, p. 339. It is there stated that "the range of weight in the unit of this system is from 12.30 grammes to 13.98 grammes. This gives an average weight of about 13.14 grammes." Now, there are two Egyptian gold standards, the heavier one weighing about 13.45 grammes, the lower one 12.76 grammes, being four-thirds respectively of the Babylonian hundredth of a heavy mina, and of the gold weight of 9.57 grammes, found later at Carthage. Their average of 13.10 grammes is evidently a wrong basis for calculation.

Take next Dr. Haeberlin on the Hatrian heavy *as*: "54 Hatrian *asses* weighed by me yield from 415.49 grammes to 323.40 grammes, giving an average of 371.77 grammes."

Now, as a matter of fact, this *as* was four-thirds of the Etruscan *as*. When the latter weighed $\frac{1}{1\frac{1}{2}}$ of the talent, or 286.35 grammes, the Hatrian *as* weighed 382.02 grammes.

When the Etruscan-Roman *as* was reduced to $\frac{1}{1\frac{1}{2}}$ ¹⁶ of a talent, or 275.06 grammes, the Hatrian *as* had a new standard of 366.74 grammes.

Further, the weight was at times degraded, and the standard of 327.45 grammes was occasionally used.

This being so, if the average of the first two official weights be taken, a result of 377.38 grammes is obtained. Some allowance further has to be made for the use of the standard of 327.45 grammes. The result then obtained is corroborated almost exactly by Dr. Haeberlin's figures. Even if only the first two weights had been taken, the addition of 6 grammes, which is allowed (I believe) for wear and tear by Dr. Haeberlin, would make his figure

¹⁶ It will be noted that Haeberlin constructs two talents, keeping the *as* constant, whereas in reality the talent remained constant and the *as* reduced.

exactly correct for the average of the two standards, but obviously not one upon which to found a theory.

The Italian heavy copper series is admittedly one of reducing weights; how, therefore, can the average give a scientific datum?

Suppose, again, that a very light standard was inaugurated for a period, say, of revolution. The result of taking such weights into account would obviously be misleading.

Weights are facts. Their value is entirely lost if they are placed upon the bed of Procrustes, to make an average or to fit a theory.

I can quite sympathize with the feeling that this note may raise amongst those who put their faith in averages, and whose work has to some extent been vitiated thereby. The basis of their arguments, however, cannot suffer, for that will stand upon some acknowledged fact.

It is absolutely necessary to point out this fatal error, which has become so prevalent of late, so that it may never again appear in scientific metrology.

J. R. McC.

XI.

ON SOME RARE SICILIAN TETRADRACHMS.

THERMAE HIMERENSES.



FIG. 1.—Tetradrachm of Thermae Himerenses.

THE French National Collection has owned for many years¹ the following tetradrachm :—

Obv.—⊙EPMITAN. Head of goddess to r., with her hair in sphendone and crowned with reeds. She wears pearl necklace and ear-ring. In front, two dolphins ; behind, one.

Rev.—Fast quadriga to l., guided by charioteer, who wears the Phrygian cap. Above, Nike, about to crown charioteer. Double exergual line, below which, to l., an altar.

Wt. 267 grains (17·30 grammes).

This coin was generally accepted as genuine,² till Gabrici, in his *Topografia e Numismatica dell' Antica Imera*, wrote as follows :—

“Questo tetradramma mostra a chiare note l'arte

¹ Mionnet, 1806, vol. i. pp. 242, 280.

² *Hist. Num.*, p. 128.

moderna dal volto di Proserpina, nel quale le labbra sono modellate assai male, come pure l'occhio. La leggenda basta da sola ad attestare la falsità."³

In December, 1907, there was sold at Paris⁴ a tetradrachm (weight 16.95 grammes = 261 grains), the obverse of which, as the reproduction below shows, came from the same die as the first, although, owing to careless striking, the legend is off the flan.



FIG. 2.—Tetradrachm of Thermae Himerenses.

The reverse is from a different die, with ΘΕΡΜΙΤΑΝ in the exergue, ΚΑΗ below the horses' feet, and dotted border-line.

This tetradrachm, presumably on the rather doubtful claim of an artist's signature,⁵ reached a sum of more than £700 at the sale—surely an excessive price for a coin devoid of artistic merit. In any case, the piece, being accepted as unquestionably genuine, was eagerly competed for. Happily, since its obverse is struck from the identical die, it also proves the genuineness of the coin in the French National Collection.⁶

³ *Rivista di Num.*, 1895, p. 27.

⁴ *Cat. d'une Collection de Monn. Antiques*, Pl. vi. 178 (Sambon and Canessa).

⁵ *Ibid.* "C'est la seule pièce carthaginoise qui porte le nom d'un artiste grec," Κληρίας.

⁶ Since writing the above, I have had an opportunity to examine the original coin in the French collection, and to convince myself completely of its authenticity.

I hope enough has been said to rehabilitate an important and interesting coin. But even without this proof, the grounds alleged against it could not have been admitted. Badly modelled lips or eyes prove nothing in the case of a Punic coin, for the modelling of Punic engravers was, with rare exceptions, notoriously bad. Nor can I see anything seriously wrong with the *ductus* of the lettering. The utmost that could be said against it is a certain want of ease in one or two letters. But that is in keeping with the rigid character of the design.

I must ask the reader's indulgence for introducing my subject in a rather unusual way. I was obliged to clear away an obstacle which otherwise would have debarred me from approaching it; for, in view of the identity of both obverses, and with a doubt resting on the authenticity of these two inscribed tetradrachms, no certainty could be secured for the attribution of similar but anepigraphic examples, such as will be dealt with hereafter.

Before entering more fully on a discussion of the few extant tetradrachms of *Thermae Himerenses*, I may be permitted to mention briefly the events that led to the foundation of this new Himera.

In the year 409 B.C. the Carthaginians had sent a fleet and army to Sicily in support of Segesta against Selinus. The expeditionary force quickly reduced, and partly destroyed, the latter city, advancing thence against Himera, which shared the same fate. A portion of the inhabitants escaped, mostly by sea, before the enemy took the city; the rest were either slain or carried to Carthage to be sold as slaves. The destruction of the city is said to have been complete.

When, less than two years later, the Carthaginians sent another expeditionary force against the Sicilian Greeks,

they brought over a number of colonists who founded a new city to the west of the old, near the hot springs long famous for their curative properties, and hence called ΘΕΡΜΑΙ. The nucleus of Carthaginian settlers is said⁷ to have been increased by the return of many of the former inhabitants who had fled from the old city. Although, then, *Thermae Himerenses* was subject to Carthage till the conquest of Sicily by Rome, yet the Greek element in the population, if we may judge by the Greek legends and types of its coins, appears to have been numerically the stronger. It seems, however, reasonable to suppose that the Carthaginian settlers and their descendants were, and remained, the ruling families in this mixed community; hence, presumably, the Punic style and fabric of many, if not most, of its coins.

I now proceed to describe the tetradrachms of *Thermae* which have come to my knowledge.



FIG. 3.—Tetradrachm of *Thermae Himerenses*.

Obv.—Head of goddess crowned with reeds, to l. Behind, prow of galley; below it, two dolphins to l. Dotted border-line.

Rev.—Fast quadriga to l, guided by bare-headed charioteer; above, Nike, about to crown him; below the exergual line, altar.

Wt. 262·4 grains (17·297 grammes).

British Museum.

⁷ Cicero, *In Verrem.*, ii. 35.

This coin is manifestly copied from a decadrachm of Evaenetus, in the British Museum. The work appears heavy when compared with the graceful original. Still, it is not unpleasing, and might have been done by a second-rate engraver of any Greek mint. It is, in any case, greatly superior to the two coins figured before it, and, hence, should be placed first in point of time; indeed, judging by style alone, a considerable interval would seem to have elapsed between them.

Head⁸ has dated the coins issued at Thermae previous to the Roman dominion from 405 to 350 B.C., with a qualifying sign of interrogation behind the latter figure.

Some of the smaller silver coins, especially *litra* pieces,⁹ are of excellent and purely Greek design, and may well date from the first years of the new city. After that, as the settlement gathered strength, the issue of our large coins would follow. It would be natural, as Gabrici has pointed out,¹⁰ for the Carthaginian overlords to prohibit the re-introduction of the ancient Himeraean coin-types. Hence the tetradrachms had to conform to the already well-known coins of other Siculo-Carthaginian cities, and the local Greek element could only venture on a veiled reference to the past by the introduction of the altar of the nymph Himera, which, with a rare exception,¹¹ had appeared on the tetradrachms of the old city from first to last.

The other adjunct, the prow of a galley behind the

⁸ *Hist. Num.*, p. 128.

⁹ *Riv. di Num.*, 1895, Pl. I. 2.

¹⁰ *Ibid.*, p. 14.

¹¹ The Pelops coin wants the altar; see Hill, *Coins of Ancient Sicily*, Pl. iv. 4.

head of the goddess, does not readily admit of an explanation. It is hardly ever found on Greek-Sicilian coins. Perhaps it is the signature of a mint magistrate or engraver. Or, if we are to venture on another conjecture at all, we might suggest a reference to the foundation of the city by Carthage, "Mother of Navies." Thus there would appear a conciliating allusion on this principal coin to the metropolis of either race.

This coin may, it seems to me, have been issued at any time from the beginning to the middle of the fourth century; but more probably towards the middle, if we take into account the greater delicacy of the design and execution of the smaller coins, which doubtless were struck soon after the foundation of Thermae.

Next in order, though separated by a somewhat lengthy interval, stands the coin shown at the head of our paper (Fig. 1). Indeed, I should not venture to place it much, if at all, before the end of the fourth century, for a twofold reason. First, there is apparent a very marked deterioration both in design and execution. The face of the goddess, if not yet barbarous, has become vacuous and insipid, while the reverse has even fared worse, the horses being hardly of better design than on some coins of the Northern barbarians.¹² The tetradrachm next in order (Fig. 2) had, it will be remembered, its obverse struck from the same die, and must, therefore,

¹² It has been said that this reverse connects itself by its style with that of the tetradrachm of Himera, *Brit. Mus. Catal.: Sicily*, p. 81, No. 48 (Holm's *Gesch. Sic.*, iii. p. 635). I must confess that I see no connexion. The coin has become famous on account of the signature of the engraver, MAI. It would appear that MAI, after the destruction of Himera, found employment at Syracuse, for I am in possession of a Syracusan tetradrachm of the finest period with his signature below the head of Arethusa.

have been issued about the same time. Next, it should be observed—and this is the other reason—that the letters on this last coin terminate in dots, a peculiarity which is rarely found on other Sicilian (Syracusan) coins before the time of Hicetas (287–278 B.C.). The letters on the first of our two coins are not terminated in dots, hence I have placed it before the other in point of time, although, as I have just said, it can only be separated from it by a very narrow space of time, so that both must be brought down to a late period.

Meanwhile, the Carthaginian influence seems to have been in the ascendant amongst the inhabitants, for, as a visible sign of it, the horses are now guided by a charioteer who wears the "Phrygian" cap or helmet, which had, frequently and since early times, been a badge of the Eastern as opposed to the Hellene. Thus Dido, as the representative of her race, wears it on the beautiful and well-known Siculo-Punic tetradrachm, doubtless the work of a Greek artist.¹³ I hardly think, then, that I am straining my point unduly, if I assume that Dido deified may be represented on our coin, just as on the other. This will receive support from the coin-type of another mint to be dealt with later on. On our second coin (Fig. 2) the figure in the chariot also seems to wear this Oriental head-cover. Unfortunately, her head is placed so near the edge that barely the top of the helmet is shown.

I had already expressed a doubt regarding the alleged "artist's signature" on this coin, and my reason for doing so will now be apparent. The coin is too late for such a claim. It is coming to be recognized that the

¹³ *Hist. Num.*, p. 738, fig. 394.

quest for these signatures in the better periods, when coins can lay claim to artistic merit, has been overdone. To extend the hunt even to late and inartistic productions would, surely, be worse than useless.

The next, and apparently last, stage in the issue of tetradrachms at Thermae Himerenses is represented by the following coin.



FIG. 4.—Tetradrachm of Thermae Himerenses.

Obv.—Head of goddess of debased style to l., with hair in net. In front, two dolphins.

Rev.—Fast quadriga to l., guided by charioteer in Phrygian helmet; above, Nike, about to crown charioteer; double exergual line; below which, to l., altar.

Wt. 257 grains (16.65 grammes).

My Collection.

It would be difficult, if not impossible, to fix even an approximate date for this coin. Its far-off prototype is doubtless the splendid decadrachm of Kimon, which has the head of Arethusa in a jewelled net; but this type had been badly copied at Panormus and Motya¹⁴ some considerable time before our coin was issued, and the latter is probably a still more debased copy of the tetradrachms of those cities.

Thermae was taken by the Romans in 252 B.C., and,

¹⁴ *Num. Chron.*, 1891, Pl. IX. 8, 9; *ibid.*, Pl. X. 5, 6.

judging from the late and debased style of our coin, there seems nothing against its attribution to the last years of Carthaginian rule. It is usually thought that the issue of Carthaginian coins in Sicily came to an end in the time of Agathocles (317-289 B.C.). But no less an authority than Head has brought down the issue of the tetradrachms of Heraclea Minoa to the end of the first Punic War (241 B.C.).¹⁵ In point of style, the best, as well as the worst, of these tetradrachms form a sufficiently close parallel to those of Thermae, and the carelessness and rudeness in the design and execution of our last coin are so marked, that it seems safe to place it as late as our knowledge of local history permits. It is interesting to observe that the charioteer is still characterized by the Asiatic helmet.

The great rarity of these coins seems to show that their issue, although it extended over a long period, was never large. Till recent times the coin in the French National Collection was the only known example. Together with the coin of the Paris sale of 1907 there appeared another anepigraphic piece which closely resembles the tetradrachm in my possession.¹⁶ Gabrici had already published such a piece—but as of uncertain attribution—which was then in the collection of Imhoof-Blumer, and is now, doubtless, in the Royal Collection of Berlin.¹⁷ Neither of these coins, however, has a well-centred reverse type, and, in consequence, the Phrygian helmet of the charioteer is not seen.

¹⁵ *Hist. Num.*, p. 124.

¹⁶ *Cat. d'une Collection de Monn. Antiques*, Pl. vi. 179.

¹⁷ *Riv. di Num.*, 1895, p. 28.

CAMARINA.



FIG. 5.—Tetradrachm of Camarina.

Obv.—KAMAPINAION. Bearded head of Melkarth, in lion's skin to l.

Rev.—Female charioteer in long chiton and Phrygian helmet, holding long goad and guiding fast quadriga to r.; above, Nike, about to crown charioteer; in the exergue, fluted Ionic column, broken short; below it, in minute letters, IXE. Dotted border-line.

Wt. 271 grains (17.55 grammes).

Another example like the last, but with IXE above the head of Melkarth. Weight 267 grains (17.30 grammes).

Both these coins were in the Auctionskatalog Griechischer Münzen, Egger, Vienna, January 7, 1908, Pl. i. 26 and 27.

A third example, but with the signature IXE obliterated by wear. See Salinas, *Monete delle Antiche Città di Sicilia*, Pl. xvii. 5.

All three from the same dies.

The remarkable tetradrachm shown above ranks with the best productions of a mint pre-eminent for the beauty of its coins. It is to be regretted that our illustration does not do it justice, and those who are in possession of the Vienna Sale Catalogue should not fail to compare the photographs of both examples of this masterpiece.

The obverse type might mislead the hasty observer in regard to the time of issue, for the bearded head, with one notable exception,¹⁸ is associated with the earlier coins of this class. Indeed, as their heavy and ungraceful reverse types show, the bearded head belongs to the transitional and early fine period—not to the finest, like those with the young head; also the difference in the development of the reverse type of both classes is so marked, that one feels tempted to assume an interval between their issues. It may be that missing links still remain to be discovered; or that—as seems to have been the case at Syracuse in the early fine period—the older engravers could not, or would not, keep pace with the “clever young men.” The reverse type of our coin is as advanced in its art as the latest examples of this series.¹⁹ The substitution of a female figure with the Eastern helmet in place of Pallas, who had, hitherto, appeared on all these tetradrachms from first to last, is sufficiently extraordinary to warrant our connecting this new issue with the events of the great Carthaginian invasion of 405, when the army of Himilco overran and ravaged the Camarinaean territory. The city itself was not taken at first. Nevertheless, the inhabitants, urged by Dionysius, quitted it and sought temporary safety at Leontini. Peace having been concluded in the same year, the Camarinaeans were permitted to return, but as subjects of the Carthaginians. They were forbidden to fortify their city, and obliged to pay tribute.

We may, I think, interpret our coin in the light of these events.

¹⁸ *Catal. Hirsch XIX.*, Pl. ii. 116, Munich, November, 1907; and *Salinas*, Pl. xvii. 15.

¹⁹ *B. M. Cat.: Sicily*, pp. 35, 36.

The head on the obverse—as the phototypes of the Vienna Catalogue show—has an almost cruel expression. The bearded heads on the earlier coins never wear this expression, and the young heads of the latest are even rather effeminate in character. It seems tempting, therefore, to recognize in this head the stern Melkarth, the guardian divinity of Tyre and Carthage. Even the head in the lion's skin on later Siculo-Punic tetradrachms is usually regarded as the same deity.

With regard to the figure on the reverse, we are, I think, on still safer ground. As at *Thermae Himerenses*, the charioteer appears here in her victorious chariot; this time with the shattered column of Greek freedom under her. It does not matter much whether we call her Carthage or Dido. But the analogy of the tetradrachm with Dido's head, as well as numerous coins that bear heads or figures of oekists, speak in favour of the latter.

The broken column can hardly be an upturned meta, for it is placed outside the field of the coin, below the line of the exergue. The meta, whether standing or overturned, is always kept in the main field, where it should be. Nor is there anything new in such an allusion to contemporary events by means of adjuncts placed in the exergues of Sicilian coins. The reference to vanquished Carthage by means of the lion in flight on the *Demaretion* is universally accepted, as is that to the victory over Etruria in the shape of the *pistrix* on many Syracusan coins.

The designer of this beautiful and interesting type has only left us three letters of his name, EXI. The smallness of these letters, and the modest and unobtrusive manner in which they are introduced, leave little,

if any, doubt that we have here the signature of a new artist.

The coinage of Camarina ends with her subjection to Carthage. There was a revival in the time of Timoleon, but very faint and short.

Assuming, as we have done, our tetradrachm to be the last of a long series, there still remains the question as to the precise time and the circumstances of its issue.

The coin bears the usual legend, viz. the name of the inhabitants, like all other tetradrachms of the town. But if issued under their authority, one would have to account for the Punic character of the types by supposing the coin to have been struck while the enemy was devastating the country-side. The citizens would anticipate, as it were, by such an issue the calamity and disgrace which were shortly to befall them.

But there is another, and I think more satisfactory, explanation. Diodorus Siculus,²⁰ who gives a fairly full account of the disasters that befell Camarina along with other Greek-Sicilian cities, does not expressly say that the Carthaginian army occupied the town after it had been quitted by the inhabitants. But there can be little doubt that it was occupied for the sake of plunder, if for nothing else. Is it not possible that during that occupation coins were issued by the Carthaginians from the local mint?

Panormus, though always a Carthaginian town, has left us coins with Greek inscriptions. So have Motya and Solus. So did Thermae. Why not, *à fortiori*, Camarina? Greek die-engravers as well as workmen of the mint would be at hand among the prisoners from

²⁰ xiii. 108-114.

newly captured Gela and other cities, and the old dies could readily be adapted. Such an issue would not be large, because the former inhabitants returned soon. Thus we could not only account for its Punic character, but also for the rarity of the coin which, apart from the two examples recently discovered, was only known through the piece published by Salinas.

SICULO-PUNIC TETRADRACHM.



FIG. 6.—Siculo-Punic Tetradrachm.

In the Catalogue of the Benson Collection²¹ there occurred a Siculo-Punic tetradrachm of the usual type, the reverse of which strongly resembles that of our No. 3 of *Thermae Himerenses*. But instead of the altar, there is a swan with open wings below the exergual line (see Fig. 6). Although the lower portion of its body is off the coin, enough remains to show that it is swimming rather than flying, for it is in swimming that a swan's neck assumes the graceful bend shown on the coin, and it calls up at once the only other Sicilian coins with similar pictures of the beautiful bird, viz. the didrachms and lesser silver coins of *Camarina*. A flying swan is found in the exergue on the reverse of almost all the earlier tetradrachms with the bearded

²¹ London, Sotheby, February, 1909, Pl. viii. 250.

head of Hercules, and a tiny swan with closed wings occurs on every one of the archaic litra pieces of the city.

All this, in conjunction with the parallel case of the Himeraean altar in the exergue of the Punic tetradrachms of Thermae, is evidence in favour of its conjectural attribution to Camarina.

It would, however, be difficult to fix its issue chronologically, owing to the fragmentary nature of our information. The history of Camarina subsequent to the re-occupation by the inhabitants in the time of the elder and younger Dionysius, Dion, Timoleon, and Agathocles, seems to have been of a very chequered description. As an unwalled city, it certainly would lie open to the contending armies of Carthaginians and Syracusans, and it does not seem improbable that the coin was issued during a perhaps somewhat prolonged occupation by the former.

Perchance the discovery of a similar coin with, as in the case of the tetradrachm of Thermae, the city's name, may one day turn probability into certainty.

E. J. SELTMAN.

XII.

THE COINAGE OF THE REIGN OF JULIAN THE PHILOSOPHER.



Follis of Julian: *rev.* Isis and Horus.

COHEN has divided the coins struck during this reign into three sections, giving to Julian himself those bearing his bust either as Caesar or Augustus, and those bearing a bust of Serapis only. Those bearing the jugate busts of Serapis and Isis he gives to Julian and Helena his wife, and those which present the bust of Isis alone to Helena.

This classification is based on the assumption that the female portrait on the coins dedicated to Isis is that of Helena personified as the goddess, and it may be interesting to consider by what evidence this assumption is supported, and whether the classification can be justified.

Julian, son of Julius Constantius and grandson of Constantius Chlorus, was born on November 6, 331 A.D. On the death of his uncle, Constantine the Great, a general massacre of possible competitors for the throne was effected by Constantius II, but Julian and his elder brother

Constantius Gallus were spared. They were well educated in seclusion, and developed very different dispositions. Gallus was raised to the dignity of Caesar in 351, but was grasping and brutal, and was executed by order of Constantius in 354. Julian proved industrious, thoughtful, and self-denying in his retired existence. In 351 he fell under the influence of certain Athenian pagan philosophers, and in adopting their faith there can be little doubt that he acted from honest conviction. It is recorded that at this time he commenced to wear a beard in token of his conversion to paganism. On November 6, 355, Constantius took him from his obscurity, raised him to the rank of Caesar, married him to Helena (the Emperor's sister), and sent him to take command in Gaul, then overrun by the Germans. The marriage was no doubt a purely political one; the exact date of Helena's birth is unknown, but as Fausta, her mother, was put to death in 326, she must have been a good many years senior to her bridegroom.

For five years Julian displayed remarkable military talents in Gaul, driving the Germans over the Rhine, which he crossed several times, rescuing 20,000 prisoners and rebuilding many ruined cities. Early in 360 Constantius, jealous of the Caesar's growing fame, ordered the finest legions of the army of Gaul to march eastward to the Persian War. Julian was then in winter-quarters at Paris, and his soldiers, who had enlisted only for service near their homes, mutinied, and acclaimed him Augustus, truly, it appears, against his will. This occurred in April or May, and Julian at once wrote to Constantius, telling him what had taken place, and asking his confirmation. The Emperor refused, and long delay and correspondence followed, throughout which, Julian says in his Epistle to

the Senate and People of Athens, he used the title of Caesar, and did his best to arrive at a peaceful arrangement. During the summer of 360 he again crossed the Rhine, defeated the Attuarii, captured, he tells us, letters which showed that the Emperor was stirring up the barbarians against him, and, as the year drew on, he returned to Gaul, and went into winter-quarters at Vienne. Here, in November, 360, he celebrated his Quinquennalia, and here Helena died, her body being sent to Rome for interment.

In January, 361, the final messengers from Constantius were received by Julian in public audience at Vienne. To the Emperor's demand that he should abandon the Imperial dignity, he replied that he would do so if his soldiers, who had elevated him, would give their assent. This, of course, they clamorously refused, and Julian sent the messengers back to their master with a letter in which he at last threw off his allegiance, and scathingly exposed the brutality and unfairness with which the Emperor had treated his family and himself. At this time also he made public profession of his paganism. In the spring of 361 he crossed the Rhine, defeated the Germans for the last time, and having heard of preparations for his destruction, and the accumulation of war stores at Bregenz and in the Cottian Alps, he rushed eastward and appeared with startling suddenness before Sirmium, which opened its gates to him, the legions stationed there joining his army. Three days later, he hurried on again, and established himself in an important strategic position on the Rhodope Mountains. Here he waited the attack of Constantius, and hence he wrote his letter to Athens, in the course of which, after alluding to the accumulation of war stores for his destruction, he

describes his actions and states his position in a passage which is not free from obscurity, but which may be rendered as follows:—

“I thought it necessary, therefore, to get together powerful forces and to provide good money of gold and silver.” Duncombe, who translated in 1784, reads, “to coin lawful money of gold and silver.”

Julian's position was precarious, as he himself admits, but civil war was avoided by the death of Constantius from fever, on November 3, 361, while on the march from Persia. Julian was then acclaimed sole Emperor, entered Constantinople on December 11, and remained there till May 15, 362, when he went to Antioch. Thence, on March 13, 363, he set out for the Persian War, in which he received a mortal wound in the moment of victory, and died on June 26 in the same year.

The reign of Julian consists, therefore, of three periods, viz.—

Period I.—From November 6, 355, when he obtained the title of Caesar, till April or May of 360, when he was acclaimed Augustus by the army.

Period II.—From the latter date until the death of Constantius on November 3, 361.

Period III.—The remainder of the reign.

It will be found that his coinage may also be divided into three classes, which nearly correspond to the above periods.

Class I.—Coins bearing a boyish clean-shaven bust and the title of Caesar.

Class II.—Coins bearing a diademed bust of a young man, generally clean-shaven, but sometimes with a slight beard, and the title of Augustus.

Class III.—Coins bearing a full-bearded bust, with the

title of Augustus, and, probably, the whole of the series dedicated to Egyptian deities.

The coins which show a slight beard are scarce, some of them are medallions and some barbarous; but their style is similar to that of Class II.

In view of Julian's assertion that he used the title of Caesar in his correspondence until his final breach with Constantius in January, 361, and his allusions to the provision of gold and silver for the war above quoted, it might well be supposed that the coinage of Class II. did not commence till that date, but examination of the coins does not support this supposition, for we find the legend VOT.V MVLTX. used with some frequency on the coins of this class, and it would appear therefore that the issue began before the celebration of the Quinquennialia in November, 360. Nor did it cease immediately on the death of Constantius, for specimens are found bearing the marks of the mints of Antioch, Constantinople, and Thessalonica, which were entirely in the power of Constantius until his death. It seems, therefore, that the issue commenced about the middle of 360 and continued till about the end of 361. The coins of this class are scarcer than those of Classes I. and III., and the subjoined table shows that several mints did not issue them at all. Silver coins from the mints of Gaul appear to be the commonest specimens of the class.

The commencement of Period III. coincided with that revival of the pagan faith which Julian so greatly desired. The Christian writers say that he promoted it by persecution, while the pagan historians, Ammianus Marcellinus, Libanius, and others allege, in effect, that he merely rectified abuses which had grown up in the forty years during which the Church had been paramount, and

that he accorded fair treatment to all religions. The latter is Julian's own view of his conduct, and it may be that his coinage gives some evidence in his favour. Modern writers, judging, perhaps, from the numerous varieties of the coins bearing the personification of Serapis and Isis, have attributed to him a special devotion to the Egyptian cultus, forgetting that, although the types are numerous, the individual specimens of these coins are extremely scarce, and that though the writings of the Emperor abound in allusions to the Greek and Roman deities, those of Egypt are hardly mentioned. I have only discovered six references to Serapis and one to Isis. Julian was always careful to refer to the tutelary deities of the place to which he wrote, and accordingly we find that four of the references to Serapis and the solitary one to Isis are in his letters to Alexandria.

Serapis is also once mentioned incidentally in the "Oration to the Sun" and once in the "Caesars," where, annoyed by the tumultuous arrival of Galba, Otho, and Vitellius together before the assembly of the gods (Vitellius still blazing with the flames of the temple of Jupiter Capitolinus, which he had burnt), Jove calls to his "brother" Serapis, "Send that miser out of Egypt to extinguish these flames"—alluding, of course, to the election of Vespasian by the Egyptian legions. Harpocrates, Anubis, Horus, and Apis are nowhere mentioned by Julian. One would expect to find the mints of a persecuting Emperor issuing coins in honour of the gods whom he principally worshipped, but, since M. Dieudonné, in *Mélanges Numismatiques*, ser. 1, has convincingly removed the Antiochian and Nicomedian coins dedicated to Jove, Apollo, and Ceres, from this

reign and attributed them to the Tetrarchy, there remains no coin of Julian on which the name or image of a Greek or Roman god appears.

In fact, leaving for a moment the Egyptian types out of consideration, it would appear that care was taken to avoid any type which must necessarily offend the Christians. It is true that the beard was considered a symbol of paganism, but, as the Emperor wore one, it was but natural to depict it on his coins, and the reverse types used are, with one possible exception, never purely pagan.

The exception is, of course, the common large brass, or *foliis*, bearing the legend *SECVRITAS REIPVB.* and for type a bull beneath two stars and sometimes also an eagle. This bull is generally identified as Apis, but is that identification unavoidable?

The bull is not uncommon on the Roman coinage, being found, for instance, on votive coins of the Antonines and others, and stars are common under both Christian and pagan Emperors. They are not attributes of Apis, and his well-known marks on forehead and flank might easily have been depicted on the coins, but they do not appear. Neither does the occasional presence of an eagle beside the principal type in any way connect the coin with Apis; for the eagle, far from being attributed to him, was quite unknown in Egypt.

The connexion of the bull with votive types above referred to is somewhat suggestive when we remember that the only other common type of Period III. bears the inscription *VOT X MVLT XX.* The *vota* were commemorated on both Christian and pagan issues.

Whatever the Emperor had in his mind, therefore, it would seem that there is nothing on the coins which

must be accepted as purely pagan, and therefore abominable to his Christian subjects. Julian himself appears to protest that this was so. A passage in the *Misopogon*, written in 363, refers, Socrates tells us,¹ to this very coin. Julian says to the Antiochians, "You insult your own princes, and in particular deride their beards and the devices of their coins. First you say I have subverted the world. In answer I know of nothing I have subverted, either by design or inadvertence." The Emperor appears here to protest that he did not use pagan coin-types, and I submit that we may accept his protest.

There remains for consideration the Egyptian series, and doubts have been expressed whether it should be attributed to Julian's reign at all. Cohen records no less than 116 varieties of these coins, and three more are added by this paper. As above mentioned, though varieties are numerous, specimens are rare, and their fabric is peculiar; some of them are of fine style for the period, and even those which are badly executed show some imitation of the style of the finer pieces.

Their size and weight vary greatly, and a considerable number of them are pierced with well-drilled and often large holes, suggesting that they were used as amulets. These holes occur in well-executed specimens, and perhaps more frequently in the pieces of poorer execution, which may be later imitations. The place of issue of the whole series is open to question, for only those inscribed DEO SANCTO NILO bear a mint-mark, that of Alexandria. The keepers of the National Collection have attributed all of them to that mint, and the style of the

¹ Socrates, lib. iii. c. 17.

finer pieces is not dissimilar from that of the rather scarce coins of the votive types of Class III. which bear the Alexandrian mint-mark.

The personification of Serapis on many of them resembles the bearded portrait of Julian, and there are a few very scarce pieces combining that portrait and the Emperor's name and titles with pagan reverse types, which, so far as I have been able to examine them, are similar in style to those on the series under consideration. The coin illustrated above is the well-known specimen in the Danish National Museum.

The great Marlborough cameo of Serapis and Isis in the National Collection shows the features of the Emperor in the personification of the god, and forms a valuable connecting link between his bearded portraits and those of the god on the coins.

It will not be forgotten that Egyptian deities are found depicted on the reverses of coins of Licinius I, Constantine the Great, Crispus, Constantine II, Magnentius, Constantius Gallus, Jovian, Valentinian I, Valens, and Gratian, several of whom were most Christian Emperors, and can hardly have authorized such issues. These coins are all very rare, and none of them bear mint-marks. They differ distinctly in style from the pieces attributed to Julian, and resemble the ordinary issues of the Emperors whose names they bear; while, as above mentioned, a resemblance between Julian's ordinary coins of Class III. and the pieces in question is traceable, though these pieces are unlike the issues of earlier or later Emperors.

I submit, therefore, that the common attribution of the series to the reign of Julian is correct, but suggest that it may have been an unauthorized issue.

Some numismatists are inclined to go farther and look upon these pieces as tesserae rather than coins, and in this connexion Mr. Messenger draws attention to a specimen in his collection, an ordinary bearded small brass, or nummus centenionalis, the reverse of which now bears the figure II engraved on a flat field, which appears to have been obtained by scraping down the original type. As the coin bears a blackish patina covering both obverse and reverse, the alteration appears to be ancient. Akerman gives five varieties of these pieces, bearing respectively the Numerals II, III, IV, VIII, and XIII, but they are not mentioned by Cohen.

It seems impossible to accept the identification of the portrait of Isis as that of Helena. "I do not find," writes an eminent numismatist, "in the features of Isis the portrait of Helena, because I do not know the portrait of Helena;" and we are in the same difficulty. Helena died some time before Julian's paganism was proclaimed, the marriage, as we have seen, was a political one, and we have no reason to suppose the existence of such devotion to his somewhat elderly wife during her life and to her memory after her death as would have induced him to commemorate her on a special series of coins. On the contrary, in all his writings he never mentions her name, nor is it inscribed on any coin. She had no special connexion with Egypt. The portrait on the coins bears no resemblance to those of the members of the Flavian family; it is severe and dignified, and may well be a high conception of the personification of the goddess rather than a portrait of any human being. The Marlborough cameo, to which I have referred as supporting the elder numismatists in their attribution of the series to the reign of Julian, fails to support Cohen's classification,

for the portrait of Isis on the gem differs from that on the coins, the features being somewhat less noble and the chin weaker in a marked degree, differences which would hardly have occurred had the faces been actually portraits of the same lady.

The fact that the series is dedicated to the Egyptian gods renders it the more probable that it was struck in Egypt. The cult of Isis was followed in Rome, but not to the exclusion of those of the Graeco-Roman gods, and, though for a short time in Julian's reign the pagans had, no doubt, the upper hand in Rome as elsewhere, it seems impossible to suppose that the Roman mints would, while issuing so many types, have used none in honour of the Roman gods. It is difficult to believe that so large a series could have been issued, even in Egypt, under Christian Emperors, and the position of affairs in Alexandria during Julian's reign lends some colour to the suggestion that the moment was favourable for a large unauthorized issue. The citizens were always turbulent; as soon as the news of Julian's accession to sole power reached them they rose and massacred their Archbishop George and Dracontius the master of the mint, the latter because he had removed an altar set up in the mint. These murders took place on December 24, 361, and it is probable that the see remained vacant until February 21, 362, when Athanasius, who had been dispossessed by George, retook possession of it. Towards the end of the same year he was again expelled by order of Julian, who, in *Letter vi.*, addressed to Ecdicius, Prefect of Alexandria, says, "I swear by the great Serapis, that unless before the Kalends of December this Athanasius, enemy of the gods, has departed from

Alexandria, nay from Egypt, the officers of your government shall pay a fine of one hundred pounds of gold. You know my temper; I am slow to condemn, but I am slower still to forgive." The see was again vacant till the death of the Emperor, when the irrepressible Athanasius returned once more. It is probable that the bearded portrait of Julian had not reached Egypt before February, 362, for, as above mentioned, the issue of the coins of Class II. was not abandoned for some time after the death of Constantius. It is suggested, therefore, that the pagan issue may very possibly have been made in the early part of 363, but this must be considered as mere conjecture.

In conclusion, it is submitted that the whole of the coins published by Cohen under his three divisions, except those removed by M. Dieudonné, should be attributed to Julian alone, and that all reference to Helena should be abandoned.

Subjoined is a table showing the working of the mints so far as I have been able to verify it. The number of secular types employed during the reign was small: nearly all the common coins commemorate either FEL. TEMP. REPARATIO, SECVRITAS, SPES, VICTORIA, or the Vota, or bear a star within a wreath without reverse legend.

The following coins appear to be unpublished:—

1. *Obv.*—D N IVLIANVS P F AVG. Diademed draped bust, r.

Rev.—SPES REIPVBLICE. Julian in military attire, standing l., holding r. globe surmounted by a star, l. vertical spear. In exergue, T CON.

Æ. Size 16 × 18 mm. ↑↓.

2. *Obv.*—DEO SARAPIDI. Draped bust without radiation, r., the features resembling those of Julian.

Rev.—VOTA PVBLICA. Egyptian priest walking l., holding r. long vertical staff, l. arm bent, the hand resting on his chest. No mint-mark.

Æ. Size 13 × 14 mm. ↑↑.

3. Variety of Cohen, Julian 14. Æ.³, with obverse legend D N IVLIANVS NOB CAESAR.
4. Variety of Cohen, Julian 47. Æ.³, with obverse legend D N FL CL IVLIANVS NOB CS.
5. Variety of Cohen, Julian 163. A.R., with obverse legend PL CL IVLIANVS P P AVG. The ornament on the diadem resembles a lotus-flower.
6. Variety of Cohen, Helena 14. Æ.³, with draped bust r., without sistrum.
7. Variety of Cohen, Helena 16. Æ.³, with bust as last; on reverse, Isis faces l. and the dog r.

MINTS OF JULIAN II.

No.	Mint City.	Period I. Caesar.				Period II. Augustus beardless.				Period III. Augustus bearded.			
		A.	R.	Æ. ¹	Æ. ³	A.	R.	Æ. ¹	Æ. ³	A.	R.	Æ. ¹	Æ. ³
1	Alexandria . . .	—	—	—	×	—	—	—	—	—	—	—	×
2	Antioch . . .	×	×	—	×	×	—	—	—	×	×	×	×
3	Aquileia . . .	—	—	—	×	—	—	—	—	—	—	—	×
4	Arles . . .	×	×	—	×	—	×	—	×	×	×	×	×
5	Constantinople	×	×	—	×	×	×	—	×	×	×	×	×
6	Cyzicus . . .	—	×	—	×	—	—	—	—	—	—	—	×
7	Heraclea . . .	—	—	—	×	—	—	—	—	—	—	—	×
8	Lyons . . .	—	—	—	×	×	×	—	×	—	—	—	×
9	Nicomedia . . .	—	×	—	×	—	—	—	—	×	—	—	×
10	Rome . . .	×	—	—	×	—	—	—	—	×	×	—	×
11	Sirmium . . .	×	—	—	×	—	×	—	—	×	×	×	×
12	Siscia . . .	×	—	—	×	—	×	—	—	—	—	—	×
13	Thessalonica .	—	×	—	×	×	—	—	—	×	×	×	×
14	Treves . . .	—	×	—	—	×	×	—	—	—	—	—	×

NOTE.—Medallions were struck during Period I. in gold at Arles and Constantinople, in silver at Arles, and in bronze at Rome; during Period II. in silver at Arles and Constantinople; and during Period III. in silver at Antioch, Constantinople, and Sirmium, and in bronze at Antioch, Constantinople, Heraclea, and Rome.

No. Æ.² bearing mint-marks are recorded.

The mint-marks RAV and LVND are recorded, but, I think, erroneously.

PERCY H. WEBB.

XIII.

THE COIN-TYPES OF AETHELRED II.

(See Plates VI., VII.)

AETHELRED II was born in the year 968 A.D., and, on the assassination of his half-brother, Edward the Martyr, was consecrated king in 978 A.D. In 1013 the pressure of the Danish invasions caused him to fly to his father-in-law, Richard, Duke of Normandy, but in the following year, on the death of the Danish King Sven, he was recalled by the Witan. He survived only two years, ending his days in London in 1016 A.D., after a calamitous reign of thirty-eight years.

The very large payments made to the Danes in this reign, much of which was in coin, and the disturbed state of the whole of Northern Europe at the time, which caused the secretion of part of the plunder, have resulted in numerous examples of Aethelred's coins being handed down to our age; and this paper will be an attempt, first, to elucidate the sequence of the types on more final lines, and, secondly, to suggest their times of issue and probable meanings.

THE SEQUENCE OF THE TYPES.

Besides desultory efforts suggested by finds of coins, there appear to have been only two complete attempts to elucidate the different coin-types of Aethelred II.

The first of these was by Hildebrand, when compiling the *Catalogue of Anglo-Saxon Coins in the Royal Cabinet at Stockholm*, and the second by the authors of the *Catalogue of Anglo-Saxon Coins in the British Museum*, vol. ii. In the first case, seven distinct issues were suggested, and in the second, eleven issues. Before going further, it will be well to ascertain whether all these can be really admitted as distinct types, or, indeed, as Anglo-Saxon coins at all. Probably owing to the huge payments made to the Danes, which, as a glance at the Saxon Chronicle will indicate, could not sometimes be handed over fast enough, an abnormal number of mule coins and other aberrations occur of this reign, and these, at first sight, lead one to suppose that there is a greater number of distinct issues than is really the case. For instance, Types iv., v., and vi. of the British Museum Catalogue are simply excessively rare mule coins, while on the other hand, there is little doubt that Type iv. var. *a*, of that arrangement, corresponding with Type D in Hildebrand, is a distinct issue. Type vii. of the British Museum Catalogue is an excessively rare variation of Type viii., with the letters C. R. V. X. in place of the quadrilateral ornament of the latter issue. Type ix. of the British Museum Catalogue, with its variety, which are represented in Hildebrand as Type F and F, var. *a*, are Danish, as stated in a footnote in the former work. They are imitations of the coins of Aethelred II, struck at Lund, in Sweden. Type x. of the British Museum Catalogue, corresponding with Type G of Hildebrand, commonly called the "Agnus Dei" type, is more of a medal or commemorative issue than a coin, as will be shown later; while Type xi. of the British Museum Catalogue, Hildebrand Type G, var. *a*, is simply a

mule composed of an "Agnus Dei" obverse, and a reverse of the coins current at the time the "Agnus Dei" medals were struck. It should be mentioned, however, that the British Museum Catalogue does not pretend to prove the number of types and their sequence, but is rather a faithful record of the coins in the National Collection. With the exceptions enumerated above, the present writer is in agreement with the compilers of the two works mentioned as to the number of distinct types of coins of Aethelred II. In other words, this number is reduced to five, excluding the "Agnus Dei" issue, viz. Types A, B, C, D, and E, of Hildebrand; Types i., ii. var. *a*, iii. var. *a*, iv. var. *a*, and viii. of the British Museum Catalogue; and No. 205, Types 5 and 2, Nos. 207 and 203, in Hawkins' *Silver Coins of England*. The investigations of the present writer have, however, led him to the conclusion that these five issues were struck in the order of the following descriptions.

As previously indicated, there were a good many departures from, or modifications of, the standard types during this reign, but as this paper is primarily one in which it is proposed to elucidate the types and suggest their times of issue, and also for the sake of clearness, it is not proposed to describe what might be termed the minor varieties, that is, those which have apparently no relation to the general authorized designs, and which consist, usually, in the addition of small crosses, single or in number, pellets, annulets, and letters, &c., in the field of the obverse or reverse, often in positions where it was obviously not the official intention that any addition or alteration should be made (see Pl. VI. 12 and 13). These symbols were probably private marks of

engravers or moneyers—certainly so in some cases—and consequently they do not bear on the question of the sequence of the issues like the mule coins, or have the character of authorized departures as in the case of the other major varieties. The necessity for describing and properly placing the major varieties consists also in the fact that some have been confounded with the distinct types, and, if they were omitted, the same misapprehension might occur in the future.

1. THE "HAND" TYPE.

(Hild., B. ; B. M. C., ii. var. *a* ; Hawkins, Type 5.)

Obv.—Broad diademed bust to r., clothed in a mantle with circular folds. Around, inscription between two circles.

Rev.—Divine hand issuing from clouds, a pellet or annulet sometimes in the centre of the cloud space; at the sides of the hand, π and $\bar{\omega}$. Around, inscription between two circles.

Pl. VI. 1. { *Obv.*—+ ÆDELRED REX ANGLOR
Rev.—+ MANNA M^o TOTAN (Totness).
 Author's Collection.

Obv.—Long diademed bust to r., clothed in a V-shaped mantle. Around, inscription between two circles.

Rev.—Divine hand issuing from the cuff of a sleeve; at the sides of the hand, π . and $\bar{\omega}$. Around, inscription between two circles.

Pl. VI. 2. { *Obv.*—+ ÆDELRED REX ANGLOR
Rev.—+ ÆADLAR M^o ðEOTFOR (Thetford).
 Author's Collection.

Obv.—As Pl. VI. 1.

Rev.—As Pl. VI. 2.

Pl. VI. 3. { *Obv.*—+ ÆDELRED REX ANGLOR
Rev.—+ OBAN MO EF ER PI (York).
 Author's Collection.

This type, although fairly plentiful, is the least common of the reign. The coin represented by **Pl. VI. 3** is, however, a rare mule, and has only been noticed amongst the coins of York.

Type 1, var. *a* (Hild., B 1, var. *a*; B. M. C., ii.).

Obv.—As **Pl. VI. 1**, but the bust is turned to the l.

Rev.—As **Pl. VI. 1**.

Pl. VI. 4. { *Obv.*—+ ÆDELRED REX ANGLOR
Rev.—+ LIFINC M' O C' ENT' P' ARA (Canterbury).

Author's Collection.

This is an extremely rare variety.

Type 1, var. *b* (Hild., B 1, var. *b*; B. M. C., ii. var. *c*).

Obv.—As before, but the bust is turned to the r. as in the main type; a cross pommée sceptre in front.

Rev.—As **Pl. VI. 2**.

Pl. VI. 5. { *Obv.*—+ ÆDELRED REX ANGLOR
Rev.—+ LYTELMAN M' O LIPEX (Ipswich).

Royal Cabinet, Stockholm.

This is an excessively rare variety, made up with a reverse of the type (**Pl. VI. 2**) and an obverse of the next variety, **Pl. VI. 6**.

Type 1, var. *c* (Hild., B 2; B. M. C., ii. var. *d*; Hawkins, No. 206).

Obv.—As before.

Rev.—As **Pl. VI. 1**, but with lines curved outwards issuing from the clouds; pellet under π and under $\bar{\omega}$.

Pl. VI. 6. { *Obv.*—+ ÆDELRED REX ANGLOR
Rev.—+ ΣPETINC M' O LVND (London).

Author's Collection.

This variety is little less common than the type, and

the addition of the sceptre constitutes, it is thought, a connecting link between Types 1 and 2, as on the coins of the latter the sceptre invariably appears, while on the coins of Types 3, 4, and 5, it is never seen.

Type 1, var. *d* (Hild., B 2, var. *a*; B. M. C., ii. var. *e*).

Obv.—As before.

Rev.—As before, but without the letters π , $\bar{\omega}$, and pellets at the sides of the hand.

Pl. VI. 7. {*Obv.*— + ÆÐELRED REX ANGLOR
Rev.— + ÆLFSTAN M'O LELC;E (Chester).
 Royal Cabinet, Stockholm.

This variety is excessively rare. The omission of the letters π and $\bar{\omega}$ is perhaps accidental, in which case the coin should not have had a place here. But it may possibly be a transitional piece between varieties *c* and *e*, and it is included on that account.

Type 1, var. *e* (Hild., B 3; B. M. C., ii. var. *f*; Hawkins, Type 6).

Obv.—Bareheaded bust to r., with smooth hair. In front, a sceptre, cross pattée.

Rev.—Divine hand giving the Latin benediction, *i.e.* the third and fourth fingers closed; small cross generally in the clouds.

Pl. VI. 8. {*Obv.*— + ÆÐEL/RED REX ANGLOR
Rev.— + ΣPYRLING M'O ÐEO (Thetford).
 British Museum.

This is a scarce variety.

Type $\frac{\text{obv. 1}}{\text{rev. 2}}$ mule (Hild., C, var. *c*; B. M. C., iii. var. *b*).

Obv.—Similar to Type 1, var. *c*. [Pl. VI. 6.]

Rev.—Similar to Type 2. [Pl. VI. 11.]

Pl. VI. 9. {*Obv.*— + ÆÐELRED REX ANGLOR
Rev.— + VNBEEN M'O LINCOL (Lincoln).
 Royal Cabinet, Stockholm.

Type $\frac{\text{obv. 1}}{\text{rev. 2}}$ mule (Hild., C, var. *d*; B. M. C., iii. var. *c*).

Obv.—Similar to Type 1, var. *e*. [Pl. VI. 8.]

Rev.—Similar to Type 2. [Pl. VI. 11.]

Pl. VI. 10. $\left\{ \begin{array}{l} \text{Obv.}— + \text{ÆDELRED REX ANGLOR} \\ \text{Rev.}— + \text{BYRHΣILE M' O BEAR (Barnstaple).} \end{array} \right.$
Carlyon-Britton Collection.

These are excessively rare mules.

2. THE CRVX TYPE.

(Hild., C; B. M. C., iii. var. *a*; Hawkins, Type 2.)

Obv.—Bareheaded bust to l., smooth hair. In front, a cross pommée sceptre. Around, inscription between two circles.

Rev.—A short voided cross, frequently with a pellet in the centre. In the angles, the letters CRV+. Around, inscription between two circles.

Pl. VI. 11. $\left\{ \begin{array}{l} \text{Obv.}— + \text{ÆDELRED REX ANGLOR} \\ \text{Rev.}— + \text{BYRHΣILE M' O PIN (Winchester).} \end{array} \right.$
Author's Collection.

This is one of the three very common types of the reign.

3. QUADRILATERAL TYPE.

(Hild., E; B. M. C., viii.; Hawkins, 203.)

Obv.—Helmeted and armoured bust to the l., very frequently an annulet on the shoulder. Around, inscription divided by the bust; no inner circle. On some coins more of the body is visible, and the helmet is plain.

Rev.—A compartment with curved sides, three pellets at each corner; over it a long voided cross, each limb terminating in three crescents; pellet in centre. Around, inscription; no inner circle.

Pl. VI. 12. Amplitude of shoulder and figured helmet.

Obv.— + EDELRED REX ANE

Rev.— + EADPOLD MO LVN (London); minor variety with an annulet in two quarters.

Author's Collection.

Pl. VI. 13. Small bust and plain helmet—

Obv.— + EDELRED REX ANLO

Rev.— + COLLRIM MO EOF (York); minor variety with pellet in one quarter.

Author's Collection.

This type, although fairly plentiful, is not so common as Types 2, 4, and 5.

Type 3, var. *a* (Hild., E, var. *c*; B. M. C., vii.).

Obv.—As Pl. VI. 12.

Rev.—Long voided cross reaching to the edge of the coin; pellet in centre. The letters CRV+ in the angles. Around, inscription; no inner circle.

Pl. VI. 14. $\left\{ \begin{array}{l} \textit{Obv.} \text{—} + \textit{ÆDELRED REX ANE} \\ \textit{Rev.} \text{—} + \textit{COL DVΣ M'Ο ΣΕΡΕΒΡΙC} \text{ (Salisbury).} \end{array} \right.$

Royal Cabinet, Stockholm.

This is an excessively rare variety, showing a lingering trace of the preceding issue.

Type $\frac{\textit{obv.} 3}{\textit{rev.} 4}$ mule (Hild., E, var. *b*; B. M. C., vi.).

Obv.—As Type 3. [Pl. VI. 12.]

Rev.—As Type 4. [Pl. VII. 2.]

Pl. VII. 1. $\left\{ \begin{array}{l} \textit{Obv.} \text{—} + \textit{ÆDELRED REX A.} \\ \textit{Rev.} \text{—} + \textit{FVLMÆR M'Ο LINC} \text{ (Lincoln).} \end{array} \right.$

Royal Cabinet, Stockholm.

This is an excessively rare mule.

A mule of an uncertain mint composed of an obverse of Type 4 and a reverse of Type 3 was listed in the

Numismatic Circular of 1900, but the writer has not been able to discover its whereabouts.

4. LONG CROSS TYPE.

(Hild., D; B. M. C., iv. var. *a*; Hawkins, 207.)

Obv.—Bareheaded bust to l., with outstanding hair.
Around, inscription divided by the bust; no inner circle.

Rev.—Similar to Type 3, but without the quatrefoil ornament in the centre of the cross.

PL. VII. 2. {*Obv.*—+ ÆDELRED REX ANGL
Rev.—+ EADFINE M'O LVND (London).
Author's Collection.

This is one of the three most common types of the reign.

There are coins of this type, and perhaps of others, the obverse die for striking which was cut the wrong way. Consequently, the impression is retrograde, and the coins have a very curious appearance.

Type $\frac{\text{obv. } 4}{\text{rev. } 5}$ mule (Hild., A, var. *f*; B. M. C., i. var. *e*).

Obv.—As Type 4. [PL. VII. 2.]

Rev.—As Type 5. [PL. VII. 5.]

PL. VII. 3. {*Obv.*—+ EDELRED REX ANGL
Rev.—+ FVLSTEN MO LVNDE (London).
Royal Cabinet, Stockholm.

Type $\frac{\text{obv. } 5}{\text{rev. } 4}$ mule (Hild., D, var. *a*; B. M. C., iv.).

Obv.—As Type 5. [PL. VII. 5.]

Rev.—As Type 4. [PL. VII. 2.]

PL. VII. 4. {*Obv.*—+ EDELRED REX ANGL
Rev.—+ DVDA M'O PINTO (Winchester).
Royal Cabinet, Stockholm.

These are two excessively rare mules.

5. SMALL CROSS TYPE.

(Hild., A; B. M. C., i.; Hawkins, 205.)

Obv.—Small diademed bust to l., within an inner circle. Around, inscription.*Rev.*—Small cross pattée within a circle. Around, inscription.

PL. VII. 5. { *Obv.*— + EÐELRED REX ANGLORM
 { *Rev.*— + OΣΓOT M'ON EOFRPI (York).
 Author's Collection.

This is, perhaps, the most common type of the reign.

Type 5, var. *a* (Hild., A, var. *a*; B. M. C., i. var. *a*).

Obv.—As before, but bust turned to r.*Rev.*—As before.

PL. VII. 6. { *Obv.*— + EÐELRED REX ANGLO
 { *Rev.*— + LEOFSƆTAN ON CÆNT: (Canter-
 bury). Author's Collection.

This is a very rare variety.

Type 5, var. *b* (Hild., A, var. *e*; B. M. C., i. *d*).

Obv.—Bust of a transitional character between those on Types 4 and 5. It is diademed like Type 5, but descends to the edge of the coin like Type 4. Around, inscription divided by the bust.*Rev.*—As before.

PL. VII. 7. { *Obv.*— + ÆÐELRED REX NI
 { *Rev.*— + EADƆOLD MO LVNDE (London).
 Royal Cabinet, Stockholm.

This is an excessively rare variety.

There are mules of this reign, as of others, which were not struck from dies of successive issues, one or two types intervening. Those known to the writer may be described as follows:—

Mule *a* (Hild., A, var. *b*; B. M. C., i. var. *b*).

Obv.—As Type 2. [Pl. VI. 11.]*Rev.*—As Type 5. [Pl. VII. 5.]

- Pl. VII. 8. $\left\{ \begin{array}{l} \text{Obv.} - + \text{EÐERED REX ANGLÐ} \\ \text{Rev.} - + \text{ARNCYTEL M'O EOFR (York).} \end{array} \right.$
Carlyon-Britton Collection.

Mule *b* (Hild., C, var. *b*; B. M. C., iii.; Hawkins, 204).

Obv.—As Type 5. [Pl. VII. 5.]

Rev.—As Type 2. [Pl. VI. 11.]

- Pl. VII. 9.¹ $\left\{ \begin{array}{l} \text{Obv.} - + \text{ÆDELRED REX ANGLOR} \\ \text{Rev.} - + \text{FVNΣTAN M'O PIN (Winchester).} \end{array} \right.$
British Museum.

These two mules, although rare, are not excessively so.

Mule *c* (Hild., E, var. *a*; B. M. C., v.).

Obv.—As Type 3. [Pl. VI. 12.]

Rev.—As Type 5. [Pl. VII. 5.]

- Pl. VII. 10. $\left\{ \begin{array}{l} \text{Obv.} - + \text{EÐELRED REX ANGLO} \\ \text{Rev.} - + \text{LEOFLOD ON PIHRAΣ (Wor-} \\ \text{cester).} \end{array} \right.$
Royal Cabinet, Stockholm.

This is an excessively rare mule.²

It is significant that the three mules above described were all struck during the issue of Type 5, which is probably the most common of the reign, and the fact bears out the inference, which may be gathered from the Saxon Chronicle, that that type was issued under great pressure, necessitating the use of all available dies, whether old and obsolete, or new.

¹ I am indebted to Dr. Lawrence for the suggestion that the obverse of this coin was struck from a die of Type i., var. *a*, with the bust turned to the left instead of to the right. If this is the case, the number of miscellaneous mule coins will be reduced to two, and an additional link in the chain of evidence connecting Types i. and ii. will have been forged.

² In the collection of Mr. Carlyon-Britton is one without the usual inner circle on the reverse, but the legend is blundered and retrograde.

AGNUS DEI MEDAL.

(Hild., G; B. M. C., Type x.; Hawkins, Type 7.)

Obv.—The Agnus Dei to r.; below, AG or AGN, within a beaded compartment. Around, inscription; no inner circle.

Rev.—The Holy Dove with wings outspread. Around, inscription; no inner circle.

PL. VII. 11. {*Obv.*— + ÆÐELRED REX ANELORVM
Rev.— + BLXCLMXXN :: DYREBY (Derby).
 Carlyon-Britton Collection.

This interesting piece is extremely rare.

Mule $\frac{\text{obv. Agnus Dei}}{\text{rev. Type 5}}$ (Hild., G, var. a; B. M. C., xi.).

Obv.—As the Agnus Dei medal. [PL. VII. 11.]

Rev.—As Type 5. [PL. VII. 5.]

PL. VII. 12. {*Obv.*— . . . DELRÆD REX ANE . . .
Rev.— . . . PINE ON STA . . . (Stamford).
 Royal Cabinet, Stockholm.

This is excessively rare, being represented by the probably unique half-coin in the Royal Cabinet at Stockholm.

The coins represented by 1. Hild., Type A, var. c, B. M. C., Type i., var. c; 2. Hild., Type A, var. d; 3. Hild., Type B 1, var. c, B. M. C., Type ii. var. b; and 4. Hild., Type C, var. a, have been omitted, as it is considered that they are only minor varieties. There were precedents in former reigns for the addition of the four smaller crosses on the first two, and these crosses certainly give symmetry to the design, but that does not, in itself, seem a sufficient reason for differentiating the coins from the other minor varieties which have a less number of additional crosses. The reversal of the letters π and ω on Hild., Type B 1, var. c, B. M. C., Type ii., var. b, is evidently accidental.

An analysis, on broad lines, of the designs on all the coins described above will also bear out the proposition

that there are only five distinct types of the reign, excluding the *Agnus Dei* pieces. The nomenclature adopted, which is based on the most prominent features of the reverses, is evidence of this so far as the reverse designs are concerned. As regards the obverses, the busts on the coins of Type 1 are generally diademed, but towards the end of the issue they are bareheaded with smooth hair. The sceptre, which is the characteristic feature of Type 2, had, by then, also been introduced. The busts on Type 2 are short, with head bare and straight hair. Those on Type 3 are helmeted and armoured, and descend to the edge of the coins. Those on Type 4 are bareheaded again, but the hair is now outstanding, and they also follow the preceding type by descending to the edge of the coins. The busts on Type 5, whether turned to the right or left, are small and diademed, and are enclosed, almost invariably, in the inner circle. The varieties of the types, which have led to so much confusion in the past, are, generally speaking, made up by the striking of mule coins, by the transposition of the busts, by the addition of a sceptre where, in the type, it is absent, and by slight modifications on the reverse.

The way is now clear to make the attempt to prove the sequence proposed.

The writer is not aware that it has previously been noticed that the transition from M^O for "monetarius," or "monetarius of," to ON for "of" or "in," between the moneymen's and mint names, has a very important bearing on the question of the order of the types. Although the writer came to a conclusion as to the correct sequence on other grounds, it is proposed first to consider the deductions to be made from this transition, as they seem the most convincing. It is well

known that M^o is the early abbreviation shown on the coins, and that ON is the later form of connecting the moneyers' name with that of the mint. It naturally follows, therefore, that the class in which the form M^o occurs most frequently is the earliest, and that the type on which ON preponderates is the last. To apply this to the coins of Aethelred II, the pieces of that King in the Royal Cabinet at Stockholm, as represented by the catalogue of 1881, have been analyzed, with the results as shown in the statement below. The Stockholm Collection was selected as constituting a fair test of the above theory, not only because it is a far larger assemblage of coins of Aethelred II than exists here, but because it contains no actual duplicates which, as a matter of fact, went largely to supply the cabinets in this country.

TABLE SHOWING, IN PERCENTAGES, TRANSITION FROM M^o TO ON.

Type.	FORM OF INSCRIPTION.		
	M ^o	Intermediates.	
		M ^o O, M ^o ON, M ^o ON chiefly.	ON
1. (Hild., B; B. M. C., ii. var. a; } Hawkins, Type 5) }	99.62%	0.38%	—
2. (Hild., C; B. M. C., iii. var. a; } Hawkins, Type 2) }	99.34%	0.66%	—
3. (Hild., E; B. M. C., viii.) } Hawkins, 203) }	69.77%	30.23%	—
4. (Hild., D; B. M. C., iv. var. a; } Hawkins, 207) }	67.49%	32.41%	0.10%
5. (Hild., A; B. M. C., I; Haw- } kins, 205) }	30.54%	24.18%	45.28%

It will be observed that in Types 1 and 2 the form *M*°*O* is practically universal, No. 2 departing from that form to a slightly greater extent than No. 1. The test seems, therefore, to prove beyond doubt that these two types were the first of the reign. At the other end, although the form *ON* was at least commenced on Type 4, the very large proportion of coins of Type 5 with this form certainly leaves little room for doubt of its place as last of the series; while on Types 3 and 4 there is a large proportion of intermediate forms which fixes their position between Types 2 and 5. It should be mentioned that there is nothing in the B. M. C. to militate against the above arrangement. The coins described therein point in the same direction.

This transition was practically commenced in the reign of Aethelred II, and it may be said to have been completely carried out in the next, that of Cnut, as it will be found that the form *ON*, after a gradually increasing ratio to the earlier form, is nearly universal on Cnut's coins of the type of Hild., Type H., B. M. C., Type xvi., which are the latest of the three common issues of that reign. From this period the form *M*°*O* entirely disappears from the coinage, beyond an accidental piece or two of the reign of Harold I, and perhaps that of Harthacnut; and the form *ON* maintains its monopoly until Edward I, in the latter half of the thirteenth century, abolished the custom of placing the moneyers' names on the coins.

Incidentally, it might be mentioned that in preparing the above table, it was found that the variations in the form of the connecting link between the mint and the moneyers' names have some bearing on the question of die-sinking. It was discovered that the introduction of *ON* was territorially, as well as chronologically, a

gradual one; the innovation being very tardily adopted by the towns in the North. In illustration of this it may be mentioned that the coins of Type 5 of Winchester, a very "common" mint, practically all have the late form of ON, while, at the other extreme, there are no coins of York of Type 5 in Hildebrand which have this form; the places between adopting varying proportions of the two forms or their intermediates. It has hitherto been supposed that, as a general rule, the dies at this time were made at one centre, and London has been suggested as that centre; but the test of the sequence of the types which has been under consideration seems to prove that, during the latter part of Aethelred's reign at least, Winchester initiated the changes in the designs and inscriptions, since it was in that city that the new form of ON was first universally adopted, and it seems, from the proportion of coins of other towns in the country on which the change was effected, to be beyond question that no one centre was wholly responsible for making the dies. It appears to be probable that England was divided into what may be called "die-sinking areas," in the chief towns of which the dies for the surrounding mint boroughs were cut. These areas may very well have coincided with the great ealdormanries, as it is an historical fact that these had their own local customs and usages, and probably, until at least as late as the reign of Aethelred II, their own witenagemots (Stubbs, *Const. Hist.*, p. 132). As an illustration of this it might be mentioned that the Saxon Chronicle, under the year 1004, records a convention, by Ulfkytel the thane, of a meeting of the witan of East Anglia for the purpose of discussing peace with King Sven, who had just previously ravaged Norwich; an almost regal act, quite on a par

with the independent making of dies for a coinage. A comparison of all the coins of the different minting-places might very possibly demonstrate the limits of these die-sinking areas; but the subject is not quite pertinent to the present paper. To return to this, it will have been seen that the order of the issues, as disclosed by the test of the reverse inscriptions, is as proposed above; but it will be well to examine what other corroborative evidence there is of this.

An important test is that of the evidence of "finds." Most of these have been unearched in Scandinavia and Denmark, or, indeed, generally around the shores of the Baltic Sea; but, for the reason of difficulty of reference or lack of proper record, the following summary of these finds must not be considered as in any way complete. In most of the finds a record of the types represented has not been preserved, and they are therefore of no assistance in ascertaining the sequence of the issues. (See Table, p. 268.)

The Scandinavian finds enumerated contained also German, Oriental, and Scandinavian coins of a varied and mixed character; but, with the exception of a few cases hereinafter mentioned, these coins are of no assistance in elucidating the subject under treatment. A record of such coins has, therefore, not been included in the statement.

Hildebrand says of Find 4 that the Anglo-Saxon coins contained in it were all of Aethelred II, *mostly* of Type 2 (his Type C). The hoard also included two Swedish coins of Olaf Skötkonung, so that the deposit was not earlier than 993 or 995 A.D., and the coins of Aethelred II not of Type 2 were very possibly of Type 1 (Hild., Type

HOARDS CONTAINING COINS OF ANTHELRED II.

No.	Place and date.	Reference.	No. of coins of Antheald II.	Coin-types of Antheald II.						Found with coins of
				Type 1. (H.M. A; R. M. C. II. var. a; H. Type b.)	Type 2. (H.M. G; R. M. C. III.) var. a; H. Type 2.)	Type 3. (H.M. E; R. M. C. VIII.) var. a; H. Type 2.)	Type 4. (H.M. I; R. M. C. IV.) var. a; H. Type 2.)	Type 5. (H.M. A; R. M. C. I.) Type 5. H. 203.)	Argent Del. (H.M. G; R. M. C. X.)	
1	Myrungs, Sweden, 1807	H.M. (1846)	247	+	+	+	+	+	Edward the Martyr, 1 (a stray?).	
2	Tilbeagen, Sweden, 1819	Do.	84	+	+	+	+	+	Eadgar, 2.	
3	Eskelennas, Sweden, 1833	Do.	65	+	+	+	+	+	Eadgar, 1.	
4	Larsarfe, Sweden, 1836	Do.	67	+	+	+	+	+	Eadgar, 1.	
5	Binnaga, Sweden, 1837	Do.	87	+	+	+	+	+	{ Cant, 109; Harold I, 45; Harthar- canf, 6; Eadw. Conf., 67.	
6	Stable, Sweden, 1838	Do.	124	+	+	+	+	+	{ Cant, 80; Harold I, 11; Eadw. Conf., 28; Wm. I and II, 26; Henry I, 4.	
7	Thomassarfe, Sweden, 1838	Do.	72	+	+	+	+	+	Eadgar, 1.	
8	Quarna, Sweden, 1839	Do.	117	+	+	+	+	+	Eadgar, 10; Eadw. the Martyr, 5.	
9	Gafride, Sweden, 1839	Do.	8	+	+	+	+	+	Eadgar, 1; Cant, 105; Wm. I or II, 1.	
10	Reslids Kyrkobj, Sweden, 1842	Do.	1404	+	+	+	+	+	{ Eadgar, 1; Cant, 258; Harold I, 49; Hartharcanf, 4; Eadw. Conf. 42.	
11	Katthunds, Sweden, 1842	Do.	291	+	+	+	+	+		
12	Gerets, Sweden, 1845	Do.	256	+	+	+	+	+		
13	Kaldal, Norway, 1846	Num. Chron., Vol. XVII. Do.	?	+	+	+	+	+		
14	Savanger, Norway, 1846	{ Num. Chron., Vols. XVI, and XVII. Num. Chron., N.S., Vol. IV, and Num. Chron., 1855	Several hundreds About 500	+	+	+	+	+		
15	Isle of Man, 1853	{ Num. Chron., N.S., Vol. XVI, and Num. Chron., 1855	9 re- counted }	+	+	+	+	+		
16	Ipwich, 1863	Num. Chron., 1865	28	+	+	+	+	+	{ Cant, Harold I, Hartharcanf, Eadw. Conf., Harold II and Wm. I (7000 coins estimated for the whole).	
17	Clay of London, 1872	Num. Chron., 1885	91	+	+	+	+	+		
18	Isleworth, 1886	{ Bergen's Museum, Aars- beretning, 1891	91	+	+	+	+	+		
19	Nesby, Norway, 1891		91	+	+	+	+	+		

B) as in find No. 3. The composition of the two hoards was, in other respects, similar.

Find No. 5 contained a fragment of a coin of Basil II, Emperor of the East from 976 to 1025, also a coin of Olaf Skötkonung, 993 or 995 to 1022, so that the hoard could have included all the types of Aethelred II. This is important, as it proves that the absence of Types 3 and 4 was accidental, and not because they could not have been present.

The types of the 134 coins of Aethelred II in Find No. 6 were not recorded except one specimen and a fragment of the Agnus Dei issue. As, however, the rest of the Anglo-Saxon coins contained in the hoard were of Cnut, Harold I, Harthacnut, and Edward the Confessor, there is very little doubt that the bulk or all the Aethelred coins belonged to Type 5.

Find No. 10 is the one on which Hildebrand appears to have based his theory of the succession of his Types A, B, and C, and of their place as first in the reign. The hoard certainly contained some older coins than usual, but, fortunately, it also included one of Bernard, Duke of Saxony. This might have been struck by the first of the name, or his successor, the second Bernard. If the latter, the deposit could not have been earlier than 1011 A.D., but if the former, it might have been hidden any time up to and including that year. The absence of Types 3 and 4 was therefore clearly accidental, as in the case of Find No. 5.

The same may be said of the absence of Type 3 from Finds Nos. 8 and 11. It will be observed, from the last column of the statement, that coins of whole reigns were absent from some of the finds, notably No. 11.

All the other hoards tabulated need no comment. They

mostly speak forcibly in favour of the order of succession proposed.

Another test of the sequence of the types is to be found in the evidence of the mule coins, although this evidence, in itself, is not, during Aethelred's reign at least, conclusive, as impressions from dies still capable of service of two or even three preceding issues were muled with impressions from a later one (see mule coins *a*, *b*, and *c*, Pl. VII. 8, 9, and 10). So far as the writer has been able to ascertain, there are no connecting mules between Types 2 and 3; but the excessively rare coin of Cnut represented in Hild. as Type A, var. *a*, and in the B. M. C. as Type v. is a connecting link between the last type proposed for Aethelred II and the first of Cnut; the obverse being of the latter reign and the reverse of the former.

As regards the first and last types, valuable corroborative evidence of their correct position is to be obtained by a comparison with the coins of Edward the Martyr the preceding, and Cnut the succeeding, monarchs. Of the two issues of Edward the Martyr there can be no reasonable doubt that the "Hand" type (Hild., B; B. M. C., ii.) is the later. It is represented by an unique coin of Canterbury—see Montagu Catalogue, No. 751—and that the issue should be excessively small is not altogether remarkable when it is remembered that Edward's reign was so abruptly closed by assassination. This type is identical, except as regards the sovereign's name, with the "Hand" type of Aethelred's coins, and on this ground alone it is reasonable to assume that the latter is the first of the reign under discussion. Sir John Evans expressed this opinion when commenting on the Ipswich find.

As regards the last issue proposed, it is identical with

some very rare pennies of Cnut represented by Hild., Type A, and in the B. M. C. by Type i. The resemblance is especially pronounced in the coins of Oswold, a moneyer of Norwich, of whom there are coins of both reigns. The reverse inscription on these coins reads + OZFOLD . MON ONRÐ, from which it will be observed that the two first letters of the mint-name have been transposed. Incidentally, this seems to indicate that Hild., Type A, of Cnut, B. M. C., Type i., is not a distinct issue of that monarch, but that it is simply composed of coins struck from old dies of Aethelred's last issue pressed into service, with the obverse slightly altered, probably during the pressure of the great payment of 72,000 lbs. of silver levied at the commencement of Cnut's reign, and paid in 1018 A.D. It is thought probable that the coins of Hild., Type B, of Cnut, B. M. C., Type ii., were issued at the same time and for the same reason, from dies of Type 4 of Aethelred II, or copies of those dies. At least, it is a significant fact that a large proportion of the money went to pay Cnut's troops, which returned to Denmark in the same year, and that all, or nearly all, the coins of these two issues of Cnut have been found in Scandinavia or Denmark. The single coin at Stockholm representing Type C of Cnut (Hildebrand's arrangement), and described in the B. M. C. as Type iii., is palpably a rough copy of Type 3 of Aethelred II (present arrangement). Instances of Cnut's die-makers copying Aethelred's types, either for the obverses or reverses of their coins, are not infrequent. Type D of Cnut in Hildebrand, and its variety, are manifestly Scandinavian, and consequently Type E is left as first of the reign of Cnut. This is evident on other grounds.

There seems to be a tendency to exaggerate the importance of the moneyers' names as a test of the sequence of the issue of coins. So many circumstances unknown to us may enter into the case, however, that it cannot be deduced with certainty that a given type should not appear among a number of other types apparently, by the evidence of the moneyers' names, continuous; or, in other words, the existence of a given moneyer's name on several types is not conclusive proof that those types were continuous. Still, the moneyers' names on coins tend to corroborate, although they cannot, by themselves, prove a sequence.

In order to make a test by this means, it is obviously best to take, as an example, the town of which we possess the largest number of coins, and of names on them, and that town, at least so far as the reign of Aethelred II is concerned, is undoubtedly London. It will, it is thought, be sufficient to bring again Hildebrand's invaluable catalogue into use, and the following statement, compiled from that catalogue, shows the sequence of the names of moneyers coining in the different types as laid down, first, by Hildebrand, and secondly, in the present paper. It has not been considered necessary to include the names of moneyers represented by one type of Ethelred II only, as they would unduly lengthen the list for practically no useful purpose, but the coinage of Edward the Martyr, and Type E of Cnut (Hildebrand's arrangement), have been given as having an important bearing on the question at issue. The latter type is, as previously suggested, the first of the reign of Cnut.

An analysis of the details given in the statement will show at once that the evidence is neutral in the majority of cases. Rejecting as proof of either arrangement those

names where there is a break in the sequence, and where they are continuous in both arrangements, it will be found that nothing can be deduced either way; in the cases of thirty-nine names out of fifty-two, nine names are in favour of the present arrangement, viz., ÆDELPERD, ÆDELRED, ÆSCTL, EADRIC, GODMAN, LEOFNOÐ, LEOFRED, LIFINC, and PVLFFINE, as against only four moneyers, viz., ÆLFGET, ÆLFNOÐ, HEAPVLF, and TOCA, in favour of Hildebrand's arrangement, and consequently that of the British Museum which, in the main, follows Hildebrand. It is beyond question that many changes in the moneyers occurred when Cnut commenced to rule. It follows, therefore, that the moneyers whose names appear without a break in a series of types *including* the first of Cnut, are the most important as corroborative evidence of the continuity of those types. Five such names are found to be in favour of the present arrangement, viz., EADRIC, GODMAN, LEOFRED, LIFINC, and PVLFFINE, as against one only in favour of Hildebrand's arrangement, viz. TOCA.

On the whole, it will readily be seen that the balance of evidence afforded by a consideration of the moneyers' names supports the sequence of types proposed in this paper. (See Table, p. 275.)

For the reasons given in connexion with the evidence of the moneyers' names, no definite proof can be adduced from a consideration of the types represented in the various mints; but for the sake of completeness, a statement embodying the information which can be culled from this source has been prepared (see Table, pp. 276, 277). Granting that a continuous sequence of two or more types from a mint tends to prove the order of those types, and omitting the sequences which occur in both

arrangements, it will be seen that there are twelve mints exclusively in favour of the present arrangement, viz., Bristol, Cadbury, Dorchester, Dublin, Dunwich, Hastings, Romney, Sidbury or Sidnaceaster, Stafford, Tamworth, Taunton, and Ythanburh or Ythanceaster. The types of the four mints of Bridgnorth or Bridport, Sandwich, Sudbury, and Winchcombe would be exclusively in sequence were Hildebrand's arrangement the correct one; while the remainder of the mints, sixty-two, afford no satisfactory evidence either way. Obviously, the balance of proof is in favour of the present arrangement.

It should be mentioned that the table does not include some readings in Hildebrand and the B. M. C., which have been considered to represent mints additional to those here tabulated, either because these inscriptions are misreadings of mints already given, or by reason of their claim to represent towns in this country being more than doubtful.

In connexion with the evidence of the mints, it should be mentioned that certain coins of Bedford afford noteworthy proof that the "Hand" type is the first of the reign. This is in the use of the form "moneta" on the reverse, one which is extremely rare on the coins of Aethelred II. At Bedford this form was consistently adopted by all the monarchs from Eadwig to the first issue of Aethelred II, when it seems to have been abruptly dropped, although there is a specimen in the British Museum of Type 5 struck at York. This city, however, as has already been noticed, was extremely conservative in regard to coin inscriptions, and but tardily relinquished forms which had long dropped into desuetude in the south.

To summarize the deductions made, six independent

Certain Moneyers. London Mint.	Edw. the Martyr. Type.	Types of Aethelred II. Present arrangement.					Cnut. Type.	Edw. the Martyr. Type.	Types of Aethelred II. Hildebrand's arrangement.					Cnut. Type.		
		1	1	2	3	4			5	1	A	A	B		C	D
ÆLFGAR	—	+	+				—	—			+	+				—
ÆLFGET, ELFGET	—	+	+			+	—	—	+	+	+					—
ÆLFNOÐ	—	+	+			+	—	—	+	+	+					—
ÆLFRIC	—	+	+		+	+	—	—	+	+	+	+				—
ÆLFSTAN	—	+	+			+	+	—	+	+	+					+
ÆLFFERD	—	+	+	+		+	+	—	+	+	+			+	+	+
ÆLFFIG, ÆLFFI	—	+	+	+		+	+	—	+	+	+			+	+	+
ÆLFPINE, ELFPINE	—	+	+	+	+	+	+	—	+	+	+	+	+	+	+	+
ÆDELMÆR	—			+	+		—	—				+	+			—
ÆDELPERD	—		+	+	+	+	—	—			+	+	+	+		—
ÆDELPINE	—	+	+			+	+	—	+	+	+				+	—
ÆDELRED	+	+	+	+			—	+	+	+			+			—
ÆSCTL, ASCIL, ESCTL	—				+	+	—	—		+			+	+		—
BRVNSTAN	—			+	+		—	—				+	+			—
CEOLNOÐ	—	+	+				—	—	+	+						—
EADMVND	—	+	+	+	+	+	—	—	+	+	+	+	+	+	+	—
EADRIC	—				+	+	+	—	+		+				+	—
EADSIGE, EDSIGE	—	+	+	+	+	+	+	—	+	+	+	+	+	+	+	—
EADPERD, EDPERD	—	+	+	+	+	+	+	—	+	+	+	+	+	+	+	—
EADPI, EDPI	—	+	+	+		+	+	—	+	+	+		+			—
EADPINE, EDPINE	—	+	+	+	+	+	+	—	+	+	+	+	+	+	+	—
EADPOLD, EDPOLD	—	+	+	+	+	+	+	—	+	+	+	+	+	+	+	—
EALHSTAN	—	+	+				—	—			+	+				—
GOD, GODA	—	+	+	+		+	+	—	+	+	+		+	+	+	—
GODERE	—	+	+			+	+	—	+	+					+	—
GODMAN	—			+	+	+	+	—	+		+	+	+	+	+	—
GODRIC	—	+	+	+	+	+	+	—	+	+	+	+	+	+	+	—
GODPINE	—	+	+	+	+	+	+	—	+	+	+	+	+	+	+	—
GOLDPINE	—	+	+	+	+	+	+	—	+		+	+	+			—
HEAPVLF	—	+			+		—	—			+	+				—
LEOFNOÐ	—				+	+	—	—	+		+					—
LEOFRED, LIOFRED	—	+	+	+	+	+	+	—	+	+	+	+	+	+	+	—
LEOFRIC	—	+	+	+	+	+	+	—	+	+	+	+	+	+	+	—
LEOFSTAN, LIOFSTAN	—	+	+	+	+	+	+	—	+	+	+	+	+	+	+	—
LEOFFINE	—	+	+	+	+	+	+	—	+	+	+	+	+	+	+	—
LIFINC, LYFINC	—	+	+	+	+	+	+	—	+	+	+	+	+	+	+	—
LEOFFOLD, LIOFFOLD	—			+		+	+	—	+				+			—
ODA	—	+	+			+	—	—	+	+						—
OSCYTEL	—	+					—	—		+	+					—
OSFERÐ	—	+		+			—	—		+			+			—
OSMVND	—	+	+	+	+	+	—	—	+	+	+	+	+	+	+	—
OSVLF	—	+	+	+	+	+	+	—	+	+	+	+	+	+	+	—
SIBPINE, SIDPINE	—	+	+	+	+	—	—	—		+	+	+	+	+	—	—
SPETING, SPETING	—	+	+	+	+	+	+	—	+	+	+	+	+	+	+	—
ÐEODRED	—	+		+			—	—	+		+		+			—
TOCA	—			+	+		+	—				+	+			—
PINSIGE, PYN SIGE	—	+				+	+	—	+	+						—
PVLFGAR	—	+	+				+	—		+			+			—
PVLFRED	—		+			+	+	—	+				+			—
PVLFRIC	—	+	+			+	+	—	+	+			+			—
PVLFSTAN, PVLFSTEN	—	+	+	+	+	+	+	—	+	+	+	+	+	+	+	—
PVLFPINE	—	+	+			+	+	—	+	+	+	+	+	+	+	—

TABLE OF MINTS OF AETHELRED II.

Mints.	Edw. II. Type.	Types of Aethelred II. Present arrangement.					Cont. Type.	Edw. II. Type.	Types of Aethelred II. Hildebrand's arrangement.					Cont. Type.	
	1	1	2	3	4	5	1	A	A	B	C	D	E	E	
Axminster	—	—	—	—	+	—	+	—	—	—	—	—	+	—	+
Aylesbury	—	—	+	—	—	—	+	—	—	—	+	—	—	—	+
Barnstaple	—	+	+	+	+	+	+	—	+	+	+	+	+	—	+
Bath	+	+	+	+	+	+	+	+	+	+	+	+	+	—	+
Bedford	+	+	+	+	+	+	+	+	+	+	+	+	+	—	+
Bridgnorth or Bridport	—	+	+	—	—	—	—	—	+	+	+	+	—	—	—
Bristol	—	—	—	—	—	+	+	—	—	—	—	—	—	—	+
Bruton	—	—	—	—	—	+	+	—	—	—	—	—	+	—	+
Buckingham	+	—	+	—	—	—	+	+	—	—	—	+	+	—	+
Cadbury	—	—	—	—	—	+	+	—	+	—	—	—	—	—	+
Cambridge	+	+	+	+	+	+	+	+	+	+	+	+	+	—	+
Canterbury	+	+	+	+	+	+	+	+	+	+	+	+	+	—	+
Chester	+	+	+	+	+	+	+	—	+	+	+	+	+	—	+
Chichester	—	—	+	+	+	+	+	—	—	+	+	+	+	—	+
Colchester	—	—	+	—	—	+	+	—	+	—	+	+	+	—	+
Corbridge	—	—	—	—	—	+	—	—	—	—	—	—	+	—	—
Crewkerne	—	—	—	—	—	+	+	—	—	—	—	—	+	—	—
Cricklade	—	+	+	—	—	+	+	—	+	+	+	+	—	—	+
Derby	+	+	+	+	+	+	+	+	+	+	+	+	+	—	+
Dorchester	—	—	+	+	+	+	+	—	+	+	+	+	+	—	+
Dover	—	—	+	+	+	+	+	—	—	+	+	+	+	—	+
Dublin ²	—	—	+	+	+	+	+	—	+	—	+	+	+	—	+
Dunwich	—	—	—	—	—	+	+	—	+	—	+	+	+	—	+
Exeter	+	+	+	+	+	+	+	+	+	+	+	+	+	—	+
Gloucester	+	+	+	+	+	+	+	+	+	+	+	+	+	—	+
Greenwich	—	—	—	—	—	—	—	—	—	—	—	—	+	—	—
Guildford	—	—	—	—	—	—	—	—	—	—	—	—	+	—	—
Harwich	—	+	+	—	—	—	—	—	—	+	+	—	—	—	—
Hastings	—	—	+	+	+	+	+	—	+	—	+	+	+	—	+
Hereford	—	+	+	+	+	+	+	—	+	—	+	+	+	—	+
Hertford	+	—	+	—	—	—	+	+	—	—	—	—	—	—	+
Huntingdon	—	+	+	+	+	+	+	—	—	+	+	+	+	—	+
Ilchester	—	—	+	+	+	+	+	—	+	—	+	+	+	—	+
Ipswich	+	+	+	+	+	+	+	+	+	+	+	+	+	—	+
Launceston	—	—	+	—	—	—	—	—	—	—	—	—	—	—	—
Lewes	+	+	+	+	+	+	+	+	+	+	+	+	+	—	+
Leicester	+	+	+	+	+	+	+	+	+	+	+	+	+	—	+
Lincoln	+	+	+	+	+	+	+	+	+	+	+	+	+	—	+
London	+	+	+	+	+	+	+	+	+	+	+	+	+	—	+
Lydford	+	+	+	+	+	+	+	+	+	+	+	+	+	—	+

² This was probably not a mint of Aethelred II, although coins of it were struck in his name.

methods of testing the sequence of the types of Aethelred's coins, as advanced in this paper, have been employed, viz. the evidence of the reverse inscriptions, of finds, of mule coins, of a comparison with the coins of the preceding and succeeding sovereigns, and, to some degree, of the mints and of the moneyers. As the main, if not the only, contemporary records of the time, viz. the Anglo-Saxon Chronicle, a Life of Dunstan (or perhaps two), and the laws and charters of the reign, do not give any clue to the sequence of the types of the coins, it is the hope of the writer that the proofs adduced may commend themselves for acceptance by those interested in the problem.

TIMES OF ISSUE, AND MEANINGS OF THE TYPES.

To propose, even approximately, the times of issue and the meanings of the types is a far less certain task than ascertaining their sequence, and it is at once admitted that the following suggestions will be largely speculative. It is also the writer's desire to state that, while advancing what he considers to be the most reasonable explanations, based on a study of the contemporary or other records of the time, as well as on the coins, his interest in the period will cause him to be the first to welcome any more probable theories.

The issue of the "Hand" type in 978 A.D., when Aethelred succeeded to the throne, seems beyond question. In addition to the evidence of this already adduced, it should be mentioned that, according to Hildebrand (1846), this is the only type of which there are no barbarous copies in the Museum at Stockholm, and the Table of Mints discloses the significant fact that it is the

only type absent from the probably native mint of Dublin. The inference is that it is the only issue in which a large tribute payment was not made. In other words, that it was the first emission of the reign, and that it ceased to be issued before 991 A.D.. The "Hand" design is, of course, not new, as it was adopted on certain coins of Edward the Elder; but the addition of the Greek letters *alpha* and *omega* at a time when, in this country, Greek scholars were extremely few, adds a literary as well as ecclesiastical interest to the coins. There seems great probability that Dunstan, the then Archbishop of Canterbury, was responsible for the adoption of the design. His pre-eminence in literature, his love of painting and designing, his paramount position on the councils of the King in whose reign the complete type was first introduced, all point to him as its author, more especially as the only known specimen of the initial issue was minted at Canterbury. If this proposition can be accepted, two facts seem to indicate the reason for its adoption. The first is the almost universal belief which then obtained, that the millennium would begin in the thousandth year after Christ. So strong was this belief in some parts of Europe, that the ordinary occupations of life were abandoned, and industries in many places came to a standstill, on the supposition that it was futile to do that which, in a short time, might be destroyed. The second fact is the religious, almost superstitious, tone of Dunstan's whole life, which found expression in vision, prophecy, and miracle. It is not unreasonable to suppose, therefore, that he should make or prompt such a design as the one under notice. As a student, and especially as a student of religion, he would naturally be well acquainted with such passages in the Bible as bore on the popular

belief of his time, and on the symbols placed on the coins; such passages as, "Behold, He cometh with the clouds" (Rev. i. 7), and, "Behold, I make all things new. . . ." "They are come to pass;" "I am the Alpha and the Omega, the beginning and the end" (Rev. xxi. 5 and 6), and, "I am the Alpha and the Omega, the first and the last, the beginning and the end" (Rev. xxii. 13). The inference seems almost irresistible that the type expresses the popular belief of the time, and that it was prompted if not designed by Dunstan.

The CRVX type, the next in order, was, by early writers, thought to have been imitated by Hakon, Prince of Norway, who was probably assassinated in 995 A.D., but it has been almost conclusively shown by Mr. Keary (*Num. Chron.*, 1887), in a summary of the work of Dr. Hans Hildebrand, entitled *Nordens Aldsta Mynt*, that the earliest Scandinavian coinages, outside this country, were struck by the following princes:—

Ireland—Sihtric III, 989–1029 A.D.

Sweden—Olaf Skötkonung, 993 or 995–1022 A.D. (1000–1015 in Norway).

Denmark—Sven Tvaeskegg, 985–1014 A.D.

Norway—Hakon Erikssön, 1015 A.D.; St. Olaf, 1015–1028.

Bearing in mind Aethelred's temporary exile in 1013, and his death in 1016, it will readily be seen that the coins of the above princes might have been copied from types issued at practically any part of Aethelred's reign. Consequently, no satisfactory assistance in gauging the times of issue is forthcoming from a consideration of the contemporary Scandinavian coinages.

A clue to the time of commencement of the CRVX type is, however, to be seen, perhaps, in the Danish attacks. As

in the case of the Vikings of former times, these first came from the West, viz. by the Danes of Ireland, the Isle of Man, and the Western Isles of Scotland. There seems reason to suppose, therefore, that the Isle of Man find (No. 15) was the share of some Dane of that island, of the first national payment of 10,000 lbs. of silver, made in 991 A.D., more especially as the coins were of mints universally situated, and all those pieces which were deciphered were of one type, that under notice. The issue of this type may, therefore, on these grounds, be placed in or just prior to 991 A.D.

A not unreasonable explanation of the type can now be suggested, and it will also tend to corroborate the deduction made in regard to the time of issue. This explanation is to be found partly in the meaning of the word CRVX itself, and partly in the prophetic utterances of Dunstan.

Hitherto the common interpretation of the word CRVX viz. "cross," seems only to have been applied to an elucidation of the meaning of the type, as, for instance, when Mr. W. B. Dickinson, in commenting on the Isle of Man find, put forth the suggestion that it commemorated the triumph of the cross over paganism in the conversion of some Danish chief; and, again, in the *British Numismatic Journal*, vol. v. p. 370, where it is suggested by Mr. W. J. Andrew, that it may refer to the text, "Having made peace through the blood of His cross." But in a metonymic sense the word "crux" means "torture, trouble, misery, destruction," &c., and that these misfortunes overtook the people at the time is abundantly evident from the pages of the Saxon Chronicle. They first became universal at the period proposed for the issue of the CRVX type, when the Danish irruption became combined and organized. The dismay and alarm universally

caused by this organized descent on the country was accentuated by the prophetic utterances of Dunstan, who, as well as being the greatest scholar, was also the most influential man in Britain during his time. From the reign of Edmund through those of Eadred, Eadwig, Eadgar, and Edward II, he may be said to have guided the destinies of this country, and there is little doubt that the glory of the reign of Eadgar the Peaceable, the prosperous and happy period of the Saxon dispensation, is directly attributable to him, and his death in 988 A.D. was, therefore, an occasion of universal sorrow and dismay. His religious and prophetic character has already been referred to. The later chroniclers record his prophecies in some detail. Matthew of Westminster retails one, uttered at the coronation of Aethelred II, in the following words: "The sword shall never depart from your house, but shall rage against you all the days of your life, slaying your offspring, until your kingdom is transferred to another family, whose manners and language the nation which you govern knows not; nor will your sin, and that of your mother, and of these men who assisted her wicked design, be expiated, except by a long course of punishment." A similar account is also given by William of Malmesbury, who also records, about four years later, that Dunstan, incensed against the King for his attack on Rochester, whose Bishop had given some unrecorded offence, sent messengers to Aethelred with the following words: "Since you have preferred silver to God, money to the apostle, and covetousness to me, the evils which God hath pronounced will shortly come upon you; but they will not come while I live, for this also hath God spoken." The chronicler further records: "Soon after the death of this

holy man, the predictions speedily began to be fulfilled and the prophecies to have their consummation. For the Danes, infesting every part and making descents on all sides with piratical agility, so that it was not known where these could be opposed, it was advised by Siric, the second Archbishop after Dunstan, that money should repel those whom the sword could not; so a payment of 10,000 pounds of silver satisfied the avarice of the Danes" (991 A.D.).

Recollections of Dunstan must have been still fresh in men's minds at this time. His prophecies would recur to their memory and the huge payment shared in by all the people might reasonably be supposed to be the tangible sign of that trouble and misery which had been foretold. By this time the expectation of the millennium would naturally have become of secondary consideration in the presence of the organized Danish attack and its attendant calamities, and that the engravers of the dies should therefore place a badge on the coins indicating the tribulations of the people would not, at that time, be improbable, more especially when it is considered that the Church, which owed so much to Dunstan, would have been largely responsible for the selection of appropriate designs. The conclusion seems almost irresistible that the "crux" type was issued about the year 991 A.D., when the making of new dies would be necessary for striking the proportion of the bribe made in coin.

The "Crux" type is the third most common of the reign, and it is probable, therefore, that it was still in currency at the date of the next great national payment to the Danes of 16,000 lbs. of silver, made in 994 A.D.; and possibly continued to be issued for ordinary purposes for some years after. It is considered that the next coinage, viz. the "Quadrilateral" type, was

issued between 995 and 1002, but probably in or immediately after 1000 A.D., for the following reasons. First, a considerable number of coins of this type have been found in Scandinavia, which tends to indicate that a Danegelt payment was made while it was current. Secondly, as the type, although plentiful, is the least common of the reign, except the "Hand" type, only one Danegelt payment was probably made in it, viz. that of 1002. Thirdly, the obverse design seems to be symbolic of that remarkable spasm of aggressiveness which Aethelred displayed in 1000 A.D., when, in spite of his difficulties with the Danes (who had plundered the whole of West Kent in 999 A.D.), he ravaged Cumberland, attacked the Isle of Man, and sent an expedition against Richard of Normandy. Lastly, although the "Crux" type would constitute a not unsuitable one for the period up to the beginning of the expected millennium, the "Quadrilateral" type, with its aggressive bust in armour and helmet, would scarcely voice the feelings of the time; but when the prophecies in regard to the millennium were found to be unfulfilled, a design symbolic of the King's intentions would be likely to be adopted. In or immediately after the year 1000 A.D., it is possible, therefore, that the "Quadrilateral" type was first struck. It is not thought that the quatrefoil design on the reverse of this issue has any special significance.

The next national payment of 36,000 pounds of silver was made in 1007 A.D., and there seems little doubt that the very common "long cross" type, No. 4, was in circulation at the time. The tribute was promised in 1006 A.D., and it is suggested that in that year new dies were made and the type changed at the same time.

Finally, the possibly still more common "small cross"

type, the last of the reign, was almost certainly in currency at the time of the next payment of 48,000 pounds of silver, in 1012 A.D., and also of the "full tribute" exacted by Sven in 1013 A.D. The former was promised in 1011 A.D., by which date no doubt the dies of 1006 A.D. required replacing; the type being probably changed at the same time.

The simple device of a cross only adopted for Types 4 and 5 scarcely needs comment. It was a return to an ancient and favourite form of design, which at least had the merit of simplicity, and this was a consideration at a period when the die-sinkers were no doubt pressed for time. It should here be mentioned that Mr. Carlyon-Britton, in writing on the coins of Edward the Confessor in the *Numismatic Chronicle* of 1905, threw out the suggestion that the three undivided crescents at the four points of the long cross of Type 4 symbolize the Holy Trinity; but nothing in support of this was adduced.

It will have been noticed that the small cross on Type 2 and the long crosses on Types 3 and 4 are voided, and it is not improbable that this form was adopted in order to facilitate the cutting of the coins into halves and quarters to circulate as halfpennies and farthings, as suggested in the Introduction to the *British Museum Catalogue*, vol. ii. The number of these cut coins which has survived to our time is, however, not so large as the adoption of this special device would lead one to expect.

The remarkable Agnus Dei pieces are connected, in time, with the last issue by the unique mule in the Royal Cabinet at Stockholm, one side of which was struck from a reverse die of the "small cross" type; and also by the presence, in some cases, of ON between the moneys' and mint names.

There is no doubt in the mind of the writer that these pieces cannot be regarded as coins. The absence of the King's bust, in itself, seems to prove this, more especially when the character of the King is recollected. This has been described by Green as showing "a haughty pride in his own kingship" (*The Conquest of England*, p. 371), and the historian goes on to say, "The imperial titles which had been but sparsely used by his predecessors are employed profusely in his charters; nor was his faith in these lofty pretensions ever shaken even at the time of his greatest misfortunes." It seems inconceivable, therefore, that such a monarch should have consented to dispense with a representation of himself on the coins at a time when such a practice had become firmly established, a practice which was not broken until the introduction of the gold currency. On the other hand, to issue a medal would certainly be in keeping with a character such as that above described. It is true that Aethelred's name and titles are borne on the pieces, but these may very well have been placed there to show when and in connexion with whom they were struck, as was done on the medals of later times. It is a fact, also, that some of the specimens preserved to us have been found in Scandinavia mixed with coins; but this is explained by the probability that any silver at hand at the time was pressed into service in order to make up the total weight of treasure exacted, as ingots of silver, rings, &c., are also found in the hoards as a general rule.

Another peculiarity about these Agnus Dei pieces is the absence on the majority of them of the usual connecting link of M^O or ON between the names of the places and those of the moneyers. Where a departure from this is made, M^O, for "moneyer," is never used,

and in at least one reading, viz. BLACAMAN :: DY RE BY [Pl. VII. 11], four pellets take the place of ON, seeming to indicate that the omission of that word was intentional, and to imply that such pieces were not coins. That the moneyers' names are on these pieces is not at all remarkable, as they would be the only persons likely to have the work of striking medals, and there seems no reason why, if they had to put their names on the coins as a guarantee of correct weight and purity, they should not also do it on medals, if it had been the practice to issue such memorials at the time.

Again, if the Agnus Dei pieces were coins, their distinctiveness would mark them out as a separate issue, not a variety, and there was at the period such a demand for currency that all the dies would have been used to their utmost capacity, with a result that numerous specimens would have been handed down to our times. This is the case with the five undoubted coinages of Æthelred II, but it is not so with the Agnus Dei pieces, which are extremely rare, not more than eleven being known to the writer, as follows:—

1. BLACAMAN :: DYREBY . . . (Pl. VII. 11).
2. BLACAMAN :[:] DYREBY . . . (*Num. Chron.*, 1893).
3. ÆDELPIG ON HERFO (Hildebrand).
4. EALDRED MALDMEZ (").
5. EALDRED O[N. ME]ALDMES . . . (Rashleigh Cat.).
6. One of Nottingham (Copenhagen).
7. PVLFOÐ HÅMTVN (Hildebrand).
8. . . . IΛ HAM . . . Fragment . . . (").
9. ALFPOLD. ON. STÆFORA . . . (").
10. ÆDELFINE STANFORDA . . . (Erbstein).
11. . . . FINE. ON. STA . . . Mule halfpenny. [Pl. VII. 12.]

NOTE.—Coin No. 2 is illustrated in the *Bergen's Museums Aarsberetning* for 1891, and appears to be from the same dies as coin No. 1.

Finally, it should be mentioned that Aethelred II instituted several innovations of far-reaching importance, which prove him to have been in advance of his time in other respects, and which show his total disregard of precedent. The Danegelt payments were themselves an innovation, and the levy in 1008 A.D. of a ship from every 300 hides of land, and a coat and helmet of mail from every eight hides, are considered by historians to be the first attempt at direct taxation, the former, indeed, forming the precedent upon which Charles I based his claim for the payment of ship-money.

The following points are therefore in favour of the medal⁴ theory. 1. The absence of the King's bust. 2. The absence of M O for "moneyer," and, in the majority of cases, of ON. 3. The extreme rarity of the issue, when all others are, in the nature of things at this time, common. 4. The known character of the King, which is in keeping with the issue of a medal. 5. The introduction of other innovations equally new to the time. 6. The designs adopted.

As regards the reason for the issue of these medals, it was suggested by Mr. Lindsay, in his *View of the Coinage of the Heptarchy*, that the Malmesbury piece, at least, was struck on the occasion of a conference of the clergy held there in 977 A.D.; but the date is sufficient to condemn the suggestion. Mr. Grueber, in an article on them published in the *Numismatic*

⁴ Since this paper was written, objection has been made to the use of the term "medal," on the grounds that the pieces bear mint and moneyers' names, that they were subsequently imitated in Sweden, that no other pieces of the time have been definitely identified as medals, and that the cut piece is a halfpenny. Did space allow, these objections are capable of explanation not unfavourable to the medal theory, but the question must now be left to the individual opinion of those intimately acquainted with the period.

Chronicle of 1899, put forward the far more probable one of the connexion of them with a personal event in the life of the King, and, after citing several events to which the medals might have applied, ultimately selected the restoration of the King in 1014 A.D., which was regarded as an act of Providence, as the one most likely to account for the issue. The shrewdness of this conclusion is evidenced from the proofs adduced in the early part of this paper of the time of issue of these medals; the restoration of Aethelred on the death of Sven certainly being the most important event of the period of the "small cross" coinage. The striking-places of the medals known also, in the main, support Mr. Grueber's suggestion. Aethelred's return to England, in 1014 A.D., was immediately followed by an energetic advance against Cnut, the son and successor of Sven, who was at Gainsborough. This expedition probably accounts for the issue of the medals at Stamford, Nottingham, Derby, and perhaps Stafford. In 1015 A.D. the King was apparently at Malmesbury. He was certainly in Hampshire in the same year, and this western expedition would account for the medals struck at Southampton, Hereford, and Malmesbury.

It now only remains to sum up the results of the above theories in regard to the times of issue of the five coin-types and the medal or commemorative issue of Aethelred II.

The "Hand" type was issued in 978 A.D.

The "Crux" type was issued about 991 A.D.

The "Quadrilateral" type was issued about 1000 A.D.

The "Long Cross" type was issued about 1006 A.D.

The "Small Cross" type was issued about 1011 A.D.

The "Agnus Dei" medal was issued in 1014 and 1015 A.D.

For detailed descriptions of the mints and moneymen of the coins of Aethelred II the reader is referred to the very comprehensive catalogues of such coins in the British Museum, and in the Royal Cabinet at Stockholm.

In conclusion, the writer wishes to accord his thanks to the Curator of the Royal Swedish Cabinet of Medals at Stockholm, to the Keeper of Coins and Medals in the British Museum, and to Mr. Carlyon-Britton, for the illustrations which have been procured from those sources, more especially to the first, in supplying to this country, for the first time, casts of important coins which could not be procured elsewhere, and which are essential to the proper illustration of the subject.

H. ALEXANDER PARSONS.

XIV.

CHRONOLOGY IN THE SHORT-CROSS PERIOD.

(See Plates VIII., IX.)

THIS paper has not in prospect a revision or reclassification of this complicated series; its sphere is more limited and less difficult than its title might imply, its interest lies chiefly in the reigns of Richard I and John, and its purpose is to explain the results of a careful examination of the passages in the chronicles and rolls which give evidence for numismatic dates in this period. To this examination I was led by the difficulty I found in reconciling a few facts quoted by the many writers on this subject with the rather general reflections which occur to one to whom the coins are not sufficiently old and familiar acquaintances to allow him to take the liberty of drawing from their style and fabric conclusions about their respective ages.

For the clearer and more coherent exposition of my results I have chosen to arrange these notes in the order in which they occurred to me; to begin, that is to say, with the impressions which I formed by examining the coins, and afterwards to pass to the statements I found in contemporary documents and early historians.

I think there are few who would not agree that the conditions of the coinage of this and earlier times justify the assumption that when there are two moneyers of the

same name working at the same time at different mints, the distinction of the mints will be clearly marked on the coins which they strike, or, if an ambiguity occurs, the coins belong to the more important of the two mints to which they might be attributed; *e.g.* if two moneyers of the name Willelm were striking coins in the year 1200, one at London, the other at Lincoln, neither of them would appear on coins of that year as "Willelm on L" (that is to say, the second or distinctive letter of the mint would be added); or, if they did, coins bearing the inscription "Willelm on L" should be attributed to London and not to Lincoln.

The reason for this is obvious: the names of moneyers and the towns at which they worked were engraved on their dies as a safeguard against the issue of coins lacking in weight or purity of metal; if debased coins were found to be in circulation, the moneyer was identified by this inscription, and punished accordingly; so, to revert to our hypothetical case, if a coin of untrue weight or purity were found bearing the inscription "Willelm on L," it would be impossible to decide whether the London or Lincoln moneyer were the criminal, unless it were understood that L was the abbreviation for London and not for Lincoln. This is especially likely to be the case in a period when the dies were distributed from London to the provincial mints, as the die-engravers would then certainly know of the existence of two moneyers of the same name, and might therefore be expected to be careful in distinguishing their dies.

This postulate, which seems necessary from an *a priori* argument of common-sense, is supported by the evidence of coins in the use of the surname to distinguish moneyers of the same name at the same mint.

we know of coins bearing the single name without this addition.² This shows that the addition of the surname was not the caprice of certain moneyers or of certain die-engravers, but a definite attempt on the part of the engravers to distinguish between moneyers of the same name working contemporaneously at the same mint.

Nor do I find anything to disprove my postulate in the attributions of coins struck by moneyers of the same name at different mints. Of the coins of William I and II, I see that Mr. Carlyon-Britton³ has attributed to Chester a coin of Type 246 (Hawkins) reading *GODRIC ON LEH*, while there is in the British Museum a coin of the same type reading *GODRIC ON LEHRE*, which is undoubtedly Leicester.⁴ For the attribution to Chester I can see no ground. We have coins reading *GODRIC ON LEHRE* of Types 241, 242, 244, and 246 in the National Collection,—these *must* all be Leicester coins.⁴ There are two other coins of Godric attributed by Mr. Carlyon-Britton to Chester: *GODRIC ON LEGEI* of Type 234, and *GODRIC ON LEHST* of Type 245. The former of these, if the attribution is correct, does not affect my present argument; but for my part, I would rather attribute it to Leicester, as we know Godric to have been a Leicester moneyer under William II, and we have no evidence of a Godric at Chester in either reign (the *i* at the end of the mint-name must be the first stroke of another letter—a

² The only other case I know to the contrary is a coin of Stephen, Type 268 (Hawkins), reading *GODPTE h : ON : hVN*, the reading of which is very doubtful, but if correct implies, I think, another moneyer of the name Godwie at Huntingdon at this time, just as the "Paxs" coin above mentioned.

³ *British Numismatic Journal*, vol. iv. p. 65.

⁴ See *Numismatic Chronicle*, 1891, p. 12 ff.

common feature, with which I shall deal later—and this letter must, I think, in order to make a correct reading for a mint, be C or R, if C it is Chester, if R Leicester). The second—a mule coin between Types i. and ii. (Mr. Carlyon-Britton's arrangement)—gives, I take it, Mr. Carlyon-Britton's reason for attributing GODRIC ON LEH of Type ii. to Chester. He does not say where this coin is; assuming the reading to be correct, it is the only coin I know which has this strange mint-abbreviation. Mr. Carlyon-Britton gives SVNOLF ON LEHST of Type 244 from the Tamworth find, but on turning to the account of that find,⁵ I see that the reading there given is SENOLF ON LE-ST; his correction of the moneyer's name is certainly probable, but the illegible letter of the mint might be restored with more probability as C or G. I should suggest that the mint on the coin of Godric, if rightly read, would be continued RE, LEHSTRE being an abbreviation for a form analogous to *Lethecaestre*. In the Anglo-Saxon Chronicle⁶ under the year 1124 may be found the form *Lethecaestrescire*, which Mr. McClure⁷ compares with the Doomsday form *Ledeceastre*. I can find no authority for any form of the name *Legionis Castra* which could give an abbreviation LEHST; *Legeceastre*, *Legceastre*, and *Ligceastre* being the regular forms until the first part of the name (*Legionis*) was dropped.

Lincoln and London are a source of much confusion in these reigns, the form LIII may be read as either LIN or LVI (I being the first upright of N); LI may be for LV (I being half of V, which is written II at this time) and LII may be for LV, or LI and the first upright of N (I am

⁵ *Numismatic Chronicle*, 1877, p. 343.

⁶ MS. E, f. 84.

⁷ E. McClure's *British Place-Names*, p. 304.

doubtful if this last occurs). So in Mr. Carlyon-Britton's original list⁸ (changes will doubtless be made when he comes to those mints in his account of the reigns in the *British Numismatic Journal*: he now repudiates his former readings) we find BRIHTRIC ON LI of Type 238 (Hawkins) attributed to Lincoln, and BRIHTRIC ON LV and LI and BRHTRIC ON LVI of the same type attributed to London. The reading BRIHTRIC ON LVNI of Type 236⁹ makes it probable that all these should be placed under London; at all events, there is no need to separate them (LV = LII = LIN, LVI = LIII = LIN; but the London attribution is better, LI = LV). GODFINE ON LIN of this type appears under Lincoln; GODFINE ON LVND and LVN of the same type make the attribution of this coin to London almost certain (LIN = LIII = LVN). Similarly, BRIHTFINE ON LIN of Type 241 should be transferred to London, where we have BRIHTFINE ON LVN of the same type. Of Type 250 we have also PVLFFORD ON LIN and LV; these might be attributed to either mint (I prefer London), but not to both.

In the first issue of Henry II we have coins reading WILLELM and WILLEM ON CAROV, CARO, CAR, and CA; there is no difficulty in attributing those with CA to Carlisle, as we have no evidence of a Willelm working at this time at Canterbury.

In the short-cross period we have Goldwine striking coins of Class II. at Canterbury, London, and Chichester, and some coins of the same class bearing the inscription GOLDWING ON without any mint-name. Those of London are very rare: I can trace only two [Pl. VIII. 1, 2], both from the Colchester find; and these are both of a very

⁸ Spink's *Numismatic Circular*, 1902.

⁹ National Collection.

late type of Class II. I know that one treads on dangerous ground if one attempts to arrange the order of the many different busts in this class, but the fact that one of these coins has a pellet in the middle of the moneyer's name—a common feature in later classes, but extremely rare, if not unique, for Class II.¹⁰—and the other a monogram in the mint-name (LW), which occurs rarely in Class II., but very commonly in Class III., makes me confident that I am not involving myself in any such controversy when I attribute them to a late period in Class II.; whereas the coins without mint-name must be of an earlier date. On the first [Pl. VIII. 3] the bust is very closely allied to that of Class I., and the lettering not yet very flat. The second and third [Pl. VIII. 4, 5, from Mr. Lawrence's Collection] are of coarser work, but the bust retains in general appearance its old form. The fourth [Pl. VIII. 6] shows a later and quite different style of work; it is struck on a smaller flan, and the portrait is worked on different lines: the beard is now a semicircle of pellets outlining a squarer jaw, the head is quite full-face and evenly balanced by the one curl on either side, the crown is again represented by five pellets, but these are now strung on a thin line. This is the style of bust which we see in a more degraded condition on the London coins [Pl. VIII. 1, 2], which are carelessly struck, the one in shallow relief with thin, meagre lettering, and the other with coarse heavy lines; the pearls on the crown are again irregular in number, and in the second example pellets are added in an additional curl on either side. I think, therefore, that the coins without a mint-name were struck at Canterbury before there was a moneyer of

¹⁰ It occurs on three Canterbury coins of Coldwine of the third class, which have the cross pommée.

the same name at London; possibly the Canterbury Goldwine himself went to London¹¹ for a short time. To the Chichester coins I must return later.

I have mentioned above that the vertical stroke at the end of a mint-name seems often to be in reality not an I, but the first portion of another letter, suggesting that LEGEI may be for LÉGER or LÉGEC, LIII for LVN, LI for LV, &c. This is a point which I think has not yet been sufficiently noticed. When the first die of a new type is being cut the engraver is likely to have before him the full inscription, and he proceeds with it as far as he can till he comes round to the cross with which he started. That as late as the beginning of the thirteenth century the engraver did not space out his letters before he began to punch them in seems hardly to need proof in the face of the very scanty abbreviations that occur, *e.g.* one letter only of the mint-name, and such an inscription as GOLDWINE ON omitting the mint entirely. A slack of space caused the engraver to divide the name of the mint in the middle, so, too, lack of space seems to have caused him to divide in the middle even a letter of the mint-name, that is to say, to punch one stroke only instead of the two, three, or four strokes required to complete the letter.¹² This feature may be very clearly seen in titles

¹¹ The pellet in the middle of the name seems to supply a link between the London coin and the cross pommée coins of Coldwine. There is no reason to doubt the identity of Goldwine of Class II. and Coldwine of Class III. at Canterbury. In the same London coin [Pl. VIII. 1] there seems to have been some hesitation about the first letter of the name; the single punch of a G was first put, then, instead of a serif being added at the end of the top line, it was struck over the upward curve in such a way as to turn the G into A.

¹² A good account of the process of punching inscriptions on mediæval coins may be found in the second volume of the *British Museum Catalogue of English Coins* (Grueber and Keary, 1893), introduction, p. xcix.

on the obverse of earlier coins, where the most common abbreviations are REX I for A, REX AI for AN (Anglorum), RI for RE (Rex).¹³ These examples show that it was a common thing for engravers, in punching the obverse inscriptions, to fill up the available space even to the extent of putting only half a letter at the end, and why should they not do the same on the reverse? Indeed, we find on short-cross coins the London Mint abbreviated to LVN, and York shortened to AVARV and Norwich to NORV, where V must be the first two strokes of W; so, too, LVNI must be for LVND, LVNDI for LVNDÆ,¹⁴ and LVNDÆI for LVNDAN. I have affirmed that this happens only on first dies of new types, because I believe that in making a second die the first die would be used as a model, and not so much care would be bestowed upon getting the most possible into the available space as upon giving a faithful copy of the model; this would account for the existence of half-letters at the end of inscriptions where there would be room to complete the letter, the engraver, copying a die where a meaningless I ended the inscription, would reproduce the meaningless I, though he had room to complete an A, N, or other necessary letter.¹⁵

¹³ See *British Numismatic Journal*, vol. ii. pp. 180 ff., and *Numismatic Chronicle*, 1901, *passim*. After Henry I the titles become stereotyped (on Stephen's coins RE, on Tealby coins REX ANGL, and occasionally RE, on short-cross pennies REX). As there was no radical change in the method of punching inscriptions from Anglo-Saxon times till the thirteenth century, these coins of William I to Henry I can be used to illustrate an argument of a later period.

¹⁴ The use of I for Æ seems to be a survival from the time when the square E was in use; after the round Æ came in, an upright stroke was punched when there was no room for the whole letter, although the letter (Æ) had ceased to begin with an upright stroke. A London coin of Class III., reading WLATÆR · ON · LVNDÆ, shows a curved stroke instead of an upright used for Æ.

¹⁵ This question is somewhat complicated, owing to our ignorance of the working of mints in mediæval times; if, as seems not unlikely, the

Let us now apply these principles to the coins attributed to the Chichester Mint in Class II. of the short-cross series. Of them we notice the following points:—

(1) There are three moneyers, none of whom occur in Classes III. and IV.—particularly strange when we are told that the mint was reopened in 1204, only four years before the commencement of Class III.

(2) Each of these moneyers occurs at another mint in the same class—Reinaud and Goldwine at Canterbury, Everard at York.

(3) The mint reads always CI or C, except on one coin where CIC¹⁶ has been read, and on some I.¹⁶

The following list gives the coins attributed to this mint, as at present read, in the British Museum; these include all the coins so attributed in the Eccles and Colchester finds except one, and this I have added to the list (No. 6):—

1. ΕΥΕΡΑΡΔ ΟΝ ΑΙΑ. [Pl. VIII. 7.] Colchester find.
2. ΕΥΕΡΑΡΔ ΟΝ Α. [Pl. VIII. 8.] Eccles find.¹⁷
3. ΕΥΕΡΑΡΔ ΟΝ ΑΙ. [Pl. VIII. 9.]
4. ΕΥΕΡΑΡΔ ΟΝ ΑΙ. [Pl. VIII. 10.] Colchester find.
5. ΕΥΕΡΑΡΔ ΟΝ ΑΙ. [Pl. IX. 11.]
6. ΕΥΕΡΑΡΔ ΟΝ Ι. [Pl. IX. 13, 14.] Colchester find
(Mr. Lawrence's Collection).
7. GOLDWINÆ ΟΝ Α. Provenance uncertain.
8. GOLDWINÆ ΟΝ ΑΙ. [Pl. IX. 15.] King George III's
Collection.
9. GOLDWINÆ ΟΝ ΑΙ. [Pl. IX. 16.] Colchester find.

dies sent from London to the provincial mints were used as patterns and copied by the moneyers or their workmen, the reproduction of mistakes is easily accounted for.

¹⁶ Colchester find (*Numismatic Chronicle*, 1903).

¹⁷ *Numismatic Chronicle*, 1865.

10. RĒINΛVD ON α. Eccles find.
 11. RĒINΛVD ON α. [Pl. IX. 17.] King George III's
 Collection.
 12. RĒINΛVD ON α. [Pl. IX. 18.] Colchester find.

And I know of no other published varieties.

No. 1 [Pl. VIII. 7], even from the photograph in the plate, can, I think, be seen to be a misreading. After the first letter of the mint-name can be seen the outer edge of a line which slopes, as it approaches the inner circle, away from the first letter; then comes a blur, at the end of which can just be seen the outline of what may be either α or α; the second letter cannot possibly be t, because the space requires a larger letter, and also the sloping stroke that can be seen does not tally with the edge of an t; the only letter which occurs to me as giving an outer edge sloping so strongly away towards the inner circle is v; this then gives us αvα (or α?). It will surely not be rash to assume that this first letter is either an engraver's mistake or has been worn down by much use or circulation from α to α, when we consider how often these two letters are interchanged. To take as an example this same coin: if we insist on reading the first letter of the mint as α, we must for consistency read the moneyer's name αVGRARD.

The mint-letter of No. 2 [Pl. VIII. 8] is certainly α, the cross-bar of the α being visible near the top of the letter, not in the centre as usual.

The two next coins (Nos. 3 and 4) [Pl. VIII. 9, 10] are from the same dies. The reading αt is, I think, correct. If it can be allowed that α and α are often interchanged, or that a worn α is not distinguishable from α, then we can quite well read the mint αt (for αv), and attribute them to York.

No. 5 [Pl. IX. 11] is misread: the moneyer's name is $\epsilon\nu\epsilon\rho\rho\lambda\pi\delta$, the second R being omitted; in the last letter of the mint the fork of a V is clearly visible, and the first letter is better read as ϵ when we notice that the coin is clipped through the middle of the N of ON and the two letters of the mint-name.

Of $\epsilon\nu\epsilon\rho\rho\lambda\pi\delta$ ON I (No. 6), I have illustrated two specimens from Mr. Lawrence's Collection [Pl. IX. 13, 14]. Mr. Grueber says of a specimen in the Colchester hoard: " ϵ ? this coin, from its moneyer's name, evidently belongs to Chichester."¹⁸ These coins are, therefore, of no importance as evidence, for we might equally well read I for ϵ I, and say that from the moneyer's name they are evidently York coins. We can illustrate the omission of the first letter of the mint by coins of Class III. in the British Museum, reading: $\epsilon\nu\epsilon\rho\rho\lambda\pi\delta$ ·ON·V (for ϵ V), WILLÆLM·B·ON·V (for LV), WILLÆLM·L·ON·V (for LV).

The coins of Goldwine are rightly read. No. 7 belongs, of course, to Canterbury: there were several coins reading GOLDWINÆ ON ϵ that were attributed to Canterbury in the Colchester find. So too $\rho\epsilon$ INÆVD ON ϵ (No. 10). No. 11 [Pl. IX. 17] reads $\rho\epsilon$ INALD·ON· ϵ // (of the missing letter the only part visible is what appears to be the second foot of an A). No. 12 [Pl. IX. 18] reads clearly ϵ I.

Now, it is a striking thing that coins of these two moneyers should read only ϵ I for this mint, at a time when there were moneyers of the same name striking coins at Canterbury, the more so when we consider how rare is this abbreviation for Chichester (the only coins of Chichester from William I to the end of the short-cross series which I know having less than Cic for the

¹⁸ *Numismatic Chronicle*, 1903, p. 122, note.

mint-name are two of William I: (1) BRVMMAN ON ϵ ¹⁹ of Type 238 and SPRIECLINC ON ϵ ²⁰ of Type 241, and in neither case is there any ambiguity, as there were not at this time moneyers of these names at Canterbury, Colchester, or Cricklade); when we consider too that we have coins of both Goldwine and Reinaud with only α for the mint-name, which have been attributed in the Colchester find to Canterbury, and some coins of Goldwine with no mint-name at all. That these moneyers were working at Canterbury, and Everard at York, is amply proved by coins reading $\alpha\pi\lambda\lambda$, $\alpha\pi$, $\alpha\nu\alpha$, and $\alpha\nu\alpha\epsilon$. I have, therefore, no hesitation in taking the ι of this mint-reading to be the meaningless ι or upright stroke, of which I have spoken above, originally inserted by a die-sinker at the end of an inscription where he had no room to punch an π .²¹

To return a moment to one coin we mentioned above. Compare, on Pl. IX., Nos. 11 and 12. I think it will be admitted (it is difficult to judge from photographs, but I have the authority of others who have seen the coins to support me) that these coins are struck from the same obverse and reverse dies: No. 11 is the Chichester coin No. 5 on my list; and No. 12 is a York coin of the Colchester find, reading $\alpha\nu\alpha\epsilon\lambda\lambda\alpha\delta$ ON $\alpha\nu$.

Our list now resolves itself to this—

1. $\alpha\nu\alpha\epsilon\lambda\lambda\alpha\delta$ ON α (or α) \vee α (or α). A York coin.
[Pl. VIII. 7.]
2. $\alpha\nu\alpha\epsilon\lambda\lambda\alpha\delta$ ON α . A York coin. [Pl. VIII. 8.]

¹⁹ Mr. Carlyon-Britton's list in Spink's *Numismatic Circular*, 1902.

²⁰ National Collection.

²¹ As $\alpha\pi\lambda$ occurs in Class II. undoubtedly for $\alpha\pi\lambda\lambda$ ($\left\{ \begin{array}{l} \text{RÉINXVD} \\ \text{ROBERD} \end{array} \right\}$ ON - $\alpha\pi\lambda$), why not also $\alpha\iota$ for $\alpha\pi$?

3. {ÆVÆRÆRD ON α (from same dies)—for α?—perhaps
 4. { York coins. [Pl. VIII. 9, 10.]
5. ÆVÆRÆRD ON ÆV (from same dies as a York coin). A
 York coin. [Pl. IX. 11.]
6. ÆVÆRÆRD ON !—mint uncertain—? York or Ilchester.
 [Pl. IX. 13, 14.]
7. GOLDWINÆ ON α. A Canterbury coin.
8. {GOLDWINÆ ON α—for αλ? Perhaps Canterbury coins.
 9. { [Pl. IX. 15, 16.]
10. RÆINÆVD ON α. A Canterbury coin.
11. RÆINÆVD ON αλ. A Canterbury coin. [Pl. IX. 17.]
12. RÆINÆVD ON α!—for αλ? Perhaps a Canterbury coin.
 [Pl. IX. 18.]

We are thus left with only five coins that can possibly be attributed to Chichester, of which two (from the same dies) may equally well be attributed to York, and the remaining three with strong probability to Canterbury. In addition to these, Mr. Lawrence has a coin which is of considerable importance to my present purpose [Pl. IX. 19], it reads MÆINIR·ON·ON·α. As this gives us another moneyer who does not appear at Chichester in Class III., but is a well-known Canterbury moneyer in Class II., it leaves, I think, no doubt that these coins reading α must be attributed to Canterbury. On this coin the engraver, by duplicating ON, left himself no room for a complete λ at the end of the inscription. Another of Mr. Lawrence's coins [Pl. IX. 20] is interesting for the last letter of the inscription, which I think may be explained in this way: the engraver punched i, meaning to leave the mint-reading α, he then found he had some space still left, and attempting to complete the λ punched another stroke obliquely and added the top line of λ, thus forming a strange hybrid letter. This supplies a link from α to αλ. It will surely now be admitted that we have not sufficient evidence from coins

to justify the existence of the Chichester Mint during the second class of the short-cross coinage.²²

I now pass on to the records. My intention is to expose some mistakes in chronology which I find have been started by Ruding and continued up to the present time. That Ruding should have originated these errors is easily understood, when we consider that, at the time when he brought out his first edition, the records on which he was working were not edited. Editions of many of them, such as the Patent and Close Rolls of King John, were published before the third edition of Ruding, and the mistakes might then have been corrected; we can understand that the editors of the third edition might well shrink from the enormous task of looking up all the references that Ruding gives, and later writers can be excused for assuming that the editors of Ruding had done their work properly.

These mistakes have mostly arisen from a fact which, though known to students of history for more than seventy years, has apparently not yet come to the notice of numismatists. This fact is that King John, being crowned on Ascension Day, May 27, 1199, counted the years of his reign, not as we should expect, from May 27, but from Ascension Day in each year. Ascension Day being a movable feast, the result is that his regnal years are some longer, some shorter than 365 days, and care has to be taken in examining writs, &c., in the Patent, Close, and other Rolls to be certain whether the date, *e.g.* May 18 of his sixth year, occurs at the beginning or end of that regnal year. For the greater

²² I am much pleased to be able to say that Mr. Lawrence has independently arrived at the conclusion that no Chichester coins are known of Class II.

convenience of numismatists I here append a table of the regnal years of King John, which I take from Sir Harris Nicholas's *Chronology of History*:—

1. { 27 May, 1199.	7. { 19 May, 1205.	13. { 12 May, 1211.
{ 17 May, 1200.	{ 10 May, 1206.	{ 2 May, 1212.
2. { 18 May, 1200.	8. { 11 May, 1206.	14. { 3 May, 1212.
{ 2 May, 1201.	{ 30 May, 1207.	{ 22 May, 1213.
3. { 3 May, 1201.	9. { 31 May, 1207.	15. { 23 May, 1213.
{ 22 May, 1202.	{ 14 May, 1208.	{ 7 May, 1214.
4. { 23 May, 1202.	10. { 15 May, 1208.	16. { 8 May, 1214.
{ 14 May, 1203.	{ 6 May, 1209.	{ 27 May, 1215.
5. { 15 May, 1203.	11. { 7 May, 1209.	17. { 28 May, 1215.
{ 2 June, 1204.	{ 26 May, 1210.	{ 18 May, 1216.
6. { 3 June, 1204.	12. { 27 May, 1210.	18. { 19 May, 1216.
{ 18 May, 1205.	{ 11 May, 1211.	{ 19 Oct. 1216.

It will be seen that in the third, fifth, eighth, eleventh, fourteenth and sixteenth years certain days in May occur twice, both at the beginning and end of the regnal year.

With the Pipe Rolls the case is different. The Exchequer issued its accounts regularly on Michaelmas Day in each year, undisturbed by deaths or accessions of kings; therefore the first exchequer year of each King will overlap the last regnal year of the previous King, *e.g.* the first exchequer year of King John dates from Michaelmas, 1198, to Michaelmas, 1199, two-thirds of it belonging to the reign of Richard. And may I here point out a serious pitfall? The Pipe Roll for the first year of Richard I has been published by the Record Commission under the date 1189-1190; this, as Mr. Round has pointed out, is a mistake; Richard's regnal years date from September 3, 1189, so the first issue of accounts in his reign took place at Michaelmas, 1189, and contained the accounts for Michaelmas, 1188, to

Michaelmas, 1189; and this is called the Pipe Roll of his first year.

The first limit for the short-cross coinage is fixed for us by several chroniclers²³ as 1180. In the *Annales de Wintonia* 1179 is evidently a scribe's error; and 1181 in the *Annales Cambriae*; 1181 is also given by Roger of Wendover and the *Annales de Bermundeseia*, though both derived their information from Ralph de Diceto, who gives the correct year, 1180; Matthew Paris copies the mistake from Roger of Wendover.

For the end of this coinage Sir John Evans gives 1247 or 1248, and Mr. Grueber places it in 1248; there is abundant proof that the long-cross type commenced in the year 1247,²⁴ the only authority I can find for the later year being a statement in Matthew Paris (who himself gives an account of the new coinage, with a drawing in the margin under 1247), that in 1248 the whole realm suffered grievous damage owing to the reminting of the money that had been debased by clipping, as for one pound's worth of badly clipped pennies they would get scarcely a mark in exchange.²⁵

I think it unlikely that the second class of short-cross coins can be placed so early as 1189; this date was given rather hypothetically by Sir John Evans, and followed by Mr. Grueber. But it was not usual at this time for a King to change the coinage as soon as he came to the throne, except in a few cases when his title was disputed

²³ See lists in Ruding, vol. i. p. 171, and *Numismatic Chronicle*, 1865, p. 259.

²⁴ Matthew Paris (*Minor History*), John de Oxenedes, *Annales de Burton*, *Annales de Wintonia*, *Annales de Waverleia*, Bartholemaeus de Cotton, *Chronicon de Mailros*.

²⁵ Matthew Paris, *sub anno* 1248 (*Minor History and Chronica Majora*).

and he hastened to assume the regal privileges; we know, for instance, that Henry II did not strike coins in his own name till 1158. Ruding, it is true, preferred 1156, but to oppose the large number of chroniclers who place the new coinage in the year 1158,²⁶ we have only Hoveden placing it in 1156, and of him Stubbs says,²⁷ "For this period 1148-1170, it would seem that our author found himself obliged to attempt original arrangement and composition. The result is meagre in the extreme, and as we might expect confused in the best-known points of the chronology, and in the obvious sequence of the best-known events." The authority of the Pipe Roll of Michaelmas, 1157, to Michaelmas, 1158,²⁸ quoted by Ruding and Longstaffe, is conclusive. Had the dies been received in the year 1156, the payment for new dies would have come into the accounts of the third year (1156-1157), if not of the second (1155-1156).

John also, we know, did not renew the coinage in his first year. Therefore, for lack of any authority for an earlier date, I am inclined to except Trivet's statement²⁹ under the year 1194, "Unam insuper monetam per totam terram, ad magnam populi utilitatem, qui ex ejus diversitate gravabatur, statuit admittendam," to mean that the new coinage was issued in this year (in spite of Sir John Evans's assertion that there is no statement of the money being called in and a new coinage issued), because, even if we allow that the King could achieve the object of keeping one kind of coinage only in circulation without

²⁶ Bartholemaeus de Cotton, Ralph de Diceto, *Annales de Waverleia*, John de Oxenedes, *Chronicle de Dunstaple*, and others.

²⁷ Stubbs's *Introduction to Roger of Hovedene*, p. xli.

²⁸ Pipe Roll 4 Henry II (payment at London for changed dies).

²⁹ *Triveti Annales* (ed. T. Hog, 1845), p. 153.

calling in the current money and issuing a new coinage, we must admit that it implies a radical reform of the currency, which is likely to carry with it any modifications in type which seem to be the result of definite design rather than gradual development.³⁰

This interpretation of the passage in Trivet is strongly supported, *ex hypothesi*, on historical grounds. Richard succeeded his father in July, 1189, while in France, paid a flying visit to England in August, to go through the formality of coronation (September 3), spent the rest of his stay in England making arrangements for his Crusade, and on December 11 left for France, not to return to England till he was ransomed in 1194. This year is therefore the earliest in which we can suppose that Richard paid any attention to the coinage, beyond putting his signature and seal to the necessary writs and charters. We have of the year 1189 two charters which may help us in deciding whether Class II. begins in this year or later—one grants dies and moneyers to the Archbishop of Canterbury, and the other to the bishop's mint at Lichfield. In the account of the Canterbury Mint, in Ruding, we find the statement that "it [*i.e.* the archiepiscopal mint] was not restored until the first year of Richard I, 1189, who gave to Hubert, Archbishop of Canterbury, and his successors, the liberty

³⁰ As Mr. Lawrence has pointed out, it is impossible to suppose that, on the issue of Class II., coins of Class I. ceased to be legal tender; it is, therefore, possible that the difference in the portrait of Class II. is not due to any monetary reforms, but is a degraded type of the first portrait developed by unskilled engravers after the expulsion of Philip Aymari. In this case it would be necessary to abandon the "class" distinction of these two periods, and to attempt, by arranging their sequence from style and lettering, a chronology based on dates fixed by the records.

of three dies and three moneys in that city."³¹ Sir John Evans and Mr. Grueber have accepted this statement, quoting it in their accounts of this coinage, but it is evidently incorrect, as Hubert did not become archbishop till 1193. From the reference in Ruding I have found the charter in the Society of Antiquaries.³² The grant was made to Baldwin, Archbishop of Canterbury, as might have been discovered by referring to John's charter, in which he confirms to Hubert the three dies, &c., granted by Richard to Baldwin.³³ As this charter of Richard I seems to have been missed by the Canterbury historians, who all refer to the grant through the charter of John, I here transcribe it, omitting only such phrases as I think quite unimportant—

"Ricardus dei gratia Rex Angliae Normanniae et Aquitanniae et Comes Andegaviae Archiepiscopis, Episcopis, Abbatibus . . . Sciatis nos reddidisse et praesenti carta confirmasse Deo et Ecclesiae Christi Cantuariensi et venerabili patri nostro Balwino Cantuariensi Archiepiscopo et omnibus successoribus suis sibi canonice substituendis tres monetarios cum tribus cuneis ad monetam fabricandam in civitate Cantuariensi perpetuo habendos . . . ita libere . . . sicut aliquis praedecessorum suorum liberius et quietius monetarios suos cum cuneis suis habuit. Testibus Waltero Rothomagensi Archiepiscopo, Johanne fratre nostro Comite Moretun, Hugone Dunolmiensi, Godefrido Wintoniensi, Hugone Coventrensi, Johanne Norwicensi, Willelmo Wigorniensi, Gilberto Roffensi, Huberto Surburiensi, Reginaldo Bathoniensi,

³¹ Ruding, vol. ii. p. 181.

³² Society of Antiquaries, MS. 116.

³³ Rot. Chart., 1 John (1199), 29 Sept. (ed. Rec. Com., 1837, p. 24, cols. 1-2), confirmed in Rot. Chart., 2 John (1200), 7 June (p. 68, col. 2).

Episcopis, Hamelino Comite Warenn., Willelmo Marescallo, Willelmo de Sancto Johanne et aliis multis.

"Datum Cantuarie per manum Willelmi Cancellarii nostri Eliensis Electi die prima decembris Regni nostri anno primo.

"(Ex libro Cartarum Cantuariensis Archiepiscopatus.)"

The grant, therefore, was made by Richard to Baldwin on December 1, 1189, and confirmed by John to Hubert in 1199 and 1200. That it was made use of and the mint reopened at this date, we have no proof. The procedure of the mint³⁴ required that, after receiving the grant, the bishop should first appoint some person to the office of moneyer: in this case three are required. As a special knowledge would be necessary, the selection might take some time, and probably one moneyer at least would be taken from another mint; these moneyers have then to be presented at the Exchequer, and the dies cut in their names, and sent down to the mint. The choice of custodes monetæ and custodes cuneorum could be made after the commission for the dies was in the hands of the London die-engraver; but the moneyers must be chosen and presented at the Exchequer before the order could be given for the dies to be cut. Therefore the preliminaries of opening or reopening a mint must have occupied a considerable time before the mint could start work. Now, in March, 1190, only three months after the grant was made, Baldwin left England to join the Crusade, and died in the Holy Land on November 19 of the same year. Though it seems very

³⁴ This procedure in the reign of Edward I is clearly shown in K. R. Mem. Roll 49, m, 11 *d*, and L. T. R. Mem. Roll 51, m. 7; there is no reason to think that any alteration had been made since the reign of Richard I.

probable that the mint would cease working on the bishop's death,³⁵ there appears to be no reason to suppose that his absence in the Holy Land would have stopped its activity; but the time intervening between his receipt of the grant and his departure seems too short to suffice for setting the mint in operation.

I have said above that the moneyers would require a special training, and that one of them at least would probably be taken from another mint, and I think the names on coins support such a view. I have no doubt, for instance, that Pieres and Pieres M., who worked at London in Classes I. and II., went off, the one to Durham, the other to Chichester, the Chichester one returning again to London, as we see by a coin of Class IV. from the Colchester hoard. An examination of the Canterbury moneyers of Class II. shows four having identical names with moneyers working in Class I. at other mints; these are Johan, Reinald, Roberd and Simon, of which Johan, Roberd and Simon are names occurring too profusely to give any evidence of their identity; Reinald, however, is an extremely uncommon name for a moneyer, the only coin I know between the Norman Conquest and the short-cross period bearing this name is one of Stephen at Nottingham. On short-cross pennies the name occurs at Norwich throughout Classes I. to IV., and also at London in Class I. and on an early coin of Class II., at Canterbury in Class II., at York in Classes III., IV. Leaving the Norwich moneyer, who seems to work continuously at

³⁵ On a bishop's death the revenues from the mint would revert, with the other temporalities, to the Crown until their restoration to the succeeding bishop. The King, having several mints of his own, would have nothing to gain by striking money at an episcopal mint.

that mint, out of the question, it does not seem rash, in dealing with so uncommon a name as Reinald, to suppose that this is one man who went from London to Canterbury to start the Canterbury Mint, and was thence transferred to the other archbishop, the London coins of Class II. being struck either at the end of 1189 or in 1194 (before the opening of the Canterbury Mint by Hubert), according as we place Class II. in 1189 or 1194. Admitting the possibility of coins being struck at Canterbury by the Archbishop Baldwin in the year 1190, I think it more probable that the mint did not open till after the accession of Hubert to the see, in 1193.³⁶

The Lichfield grant³⁷ makes the case stronger for fixing the commencement of Class II. in 1194. On November 12, 1189, Richard granted a pair of dies to the Bishop of Lichfield, and this is illustrated by a coin in the British Museum [Pl. IX. 21]. Of this coin Mr. Grueber said,³⁸ "It is undoubtedly of Class II.," though Sir John Evans had assigned it to the first class. The coin cannot be struck earlier than 1190, so on this disputed point (whether it belongs to Class I. or Class II.) depends the dating of the second class. I firmly believe that Sir John Evans was right when he placed it in Class I.³⁹ Apart from the vexed question of the portrait, the relief and lettering and the shape of the flan are all

³⁶ If Baldwin did not work the mint, Hubert would require a new grant which he could hardly have got until the King was ransomed from his imprisonment in 1194.

³⁷ Harley MSS. 84, P 25.

³⁸ *Numismatic Chronicle*, 1903, p. 166.

³⁹ Mr. Grueber agrees with me in this attribution; his previous statement was probably based on the date of the charter, and not on the style of the coin.

characteristically Class I. Another point is the abbreviation mark—a straight line through the last letter of the mint-name. This form of abbreviation occurs on a Lincoln coin which reads WILT·D·F·ON·NICO, on London coins bearing the moneyer's name FIL AIMER, and on some coins of Northampton, where the mint is shortened to NOR \bar{h} , and, I believe, on no other short-cross pennies. These coins all belong to Class I. Will. D. F. and Fil. Aimer are not known to have struck any coins of Class II., nor do we know any coins of Class II. having this abbreviation for Northampton. The fact that the Lichfield coin bears this abbreviation forms in itself a strong reason for placing it in the first Class. If I am right in this conclusion, Class II. cannot have begun so early as 1189, and in the absence of Canterbury coins of Class I. we must assume that that mint was not opened until Hubert became archbishop.

Sir John Evans, on the authority of Madox's quotation⁴⁰ from the Pipe Roll of the fourth year of John, says that the moneyer Lefwine was working at Lincoln in the year 1202-1203; but the Pipe Roll for the fourth year of John gives accounts from Michaelmas, 1201, to Michaelmas, 1202. We must therefore place him a year earlier. The same is the case with Everard Bradex, who appears as a York moneyer in the Pipe Roll for the third year of John. This should be dated 1200-1201, not 1202, as has formerly been held; in this Pipe Roll also appear Johan monetarius at York, Godard at Lincoln, Wulfric and Alard at Worcester, Teobald in the Nottingham and Derby accounts, and the "defalcatio quattuor monetariorum" at Thetford.

⁴⁰ Madox, *History of the Exchequer* (1759), p. 737, note (w).

I will now deal with the important writ of October 7, in the ninth year of John.⁴¹ Owing to its importance and the use that has been made of it as a foundation on which to build up a history of the coinage of this reign, I give a full transcript of the text—

“Rex, etc., omnibus monetariis et examinadoribus monetae et custodibus cuneorum Londiniensium salutem. Praecipimus vobis quod sicut vos et vestra diligitis statim visis litteris istis signetis sigillis vestris omnes cuneos vestros et sitis cum illis apud Westmonasterium a crastino Sancti Dionisii in quindecim dies audituri praeceptum nostrum. Et faciatis scire omnibus operatoribus monetae de civitate vestra et eis qui sciunt dare consilium ad faciendam monetam quod tunc sint ibi vobiscum et habeatis ibi has litteras. Teste domino Petro Wintoniensi Episcopo apud Westmonasterium vii die Octobris.

“Sub eadem forma scribitur omnibus monetariis et examinadoribus monetae et custodibus cuneorum [apud] Wintoniam, Exoniam, Cicestriam, Cantuariam, Roffam, Gipeswicum, Norwicum, Lenn., Lincolniam, Eboracum, Cardull., Norhamptoniam, Oxoniam, Sancti Edmundi, Dunolmiam.”

The date at which this writ was issued was October 7, 1207 (not 1208), and the summons was for January 10, 1208. Longstaffe⁴² seems to have assumed that this could mean nothing else than a recoinage. Sir John Evans makes no comment on the object of the writ, quoting it only in order to show that the mints here named are identical with those appearing on the coins which he attributed to this reign; Mr. Grueber has taken

⁴¹ Rot. Pat., 9 John (1207), 7 Oct. (ed. Rec. Com., 1835, p. 76, col. 1).

⁴² *Numismatic Chronicle*, 1863, p. 177.

it to mean a recoinage, assuming, like Longstaffe, that no other interpretation is possible. I find, however, that in reading carefully the phrases of this writ, there is considerable difficulty in supposing it to be issued for the purpose of a recoinage, and I would rather take it to mean that there had been a large circulation of counterfeit money at this time, and that the King therefore intended to take steps to prevent this and punish any malefactors on whom he could lay his hands. It orders all the moneyers, custodes cuneorum, and assayers of all the mints to appear at Westminster, with all the workmen of the mints and any others that are qualified to give advice in the making of money. The first thing to notice here is that the London die-engravers, who sent out dies to all the mints at this time, are not specially mentioned, and if the matter for consideration were the striking of a new type, they would surely be the best advisers. The people particularly mentioned are (1) moneyers and custodes cuneorum, whose duties are to see the coinage is properly struck and issued, and to hold themselves responsible for its good weight and purity, and the safe custody of the dies; (2) assayers, whose work is to test the coins issued; (3) operadores, or mere labouring hands; (4) any qualified to advise *ad faciendam monetam*, the words here used are, I think, of some importance: they convey to my mind a suspicion that the advice required was concerning the methods employed in the actual striking of the money, especially concerning the machinery in use; had the King required advice about striking a new type of coinage, I think he would have used the word *reformandam* or *renovandam*. A consideration of the recipients of the summons brings one to the conclusion that King John's purpose

was to take advice about the conditions under which his coins were struck, and the precautions taken against the counterfeiting of them, rather than to issue new coins, as he would in the latter case certainly have summoned his die-engravers and certainly not his *operatores*.

My second point is that they are ordered to seal up their dies and have them with them at Westminster. This is surely a strange step to take when a new coinage is merely contemplated. They need not deliver their dies at London at all events until the commission for striking the new type was in the hands of the die-engravers. On the other hand, if an inquiry were to be held about counterfeit money, the King would wish to have the dies examined to see if any had been tampered with, or again, a careful examination of the dies might bring to light the fact that some moneyers had not used their dies so much as others, which would, in the absence of explanation, and with proof of the quantity of bullion used by each moneyer, be almost conclusive evidence that they had used counterfeit dies instead.

Still more important are, I think, the words, "*praecipimus vobis quod sicut vos et vestra diligitis statim,*" &c., that is to say, they are to appear under pain of personal injury and confiscation of property. I cannot believe that the King would have given the provincial moneyers, &c., such a serious injunction, involving penalties in case of failure to appear at a mere inquiry into the advisability of issuing a new coinage; it was not his practice to use such strong language in his writs; *e.g.*, when he orders Fitz Otho to make dies for Chichester as soon as possible, he merely writes, "*praecipimus quod*

illos [cuneos] sine dilatione fieri facias." ⁴³ But if the moneyers and others were summoned to be put on their trial for the counterfeiting of money, an offence involving the terrible penalty of mutilation, there was good reason for imposing severe penalties for failure to appear in answer to the summons.

I now return to the Chichester Mint. We have three writs relating to this mint in the reign of King John, each of which I fully transcribe.

(1) ⁴⁴ "Rex Reginaldo de Cornhill, etc. Sciatis quod concessimus venerabili patri nostro Cicestreysi Episcopo quod habeat cuneum suum in civitate Cicestreysi, et quod currat donec nostri in eadem civitate currant, et tunc una cum illis currat. Et ideo vobis praecepimus quod ei vel certo nuncio suo cuneum illum habere sine dilatione faciatis. Teste, etc., apud Westmonasterium xxix die Aprilis.

"Sub eadem forma scribitur Vicecomiti Sussex.

"Sub eadem forma scribitur Willelmo filio Othonis."

(2) ⁴⁵ "Rex Willelmo filio Othonis, etc. Sciatis recognitum esse per inquisitionem per nos factam quod tres cunei debent esse apud Cicestriam unde duo debent esse nostri et tertius Episcopi Cicestreysi, et ideo tibi praecepimus quod illos sine dilatione fieri facias et episcopo vel certo nuntio suo unum liberes et duos quos habere debemus liberes Archidiacono Tantonensi et Reginaldo de Cornhill. ad ponendum ibi. Teste Gaufrido filio Petri apud Westmonasterium xvii die Maii. per eundem."

⁴³ Rot. Claus., 6 John (1205), 17 May (ed. Rec. Com., 1833, p. 32, col. 1). See *infra*.

⁴⁴ Rot. Claus., 6 John (1205), 29 April (p. 29, col. 2).

⁴⁵ Rot. Claus., 6 John (1205), 17 May (p. 32, col. 1).

(3)⁴⁶ "Rex Willelmo de Wrotham, etc. Sciatis quod concessimus domino Cicestrensi Episcopo duos cuneos nostros de Cicestria cum cambio ad illos pertinente et cum omnibus pertinentibus et libertatibus suis ad firmam pro xxx marcis a festo Sancti Petri ad Vincula anno, etc., septimo in unum annum. Et ideo vobis mandamus quod cuneos illos cum cambio ad illos pertinente et cum omnibus pertinentibus et libertatibus suis eidem Episcopo sine dilatione habere faciatis. Teste me ipso apud Muceledevrum xxvii die Julii. per ipsum Regem.

"Sub eadem forma scribitur Reginaldo de Cornhill. et custodibus cuneorum Cicestrensiū."

These all belong to the year 1205. Through previous mistakes the mint at Chichester has been supposed to have reopened in 1204. The first writ, on April 29, grants one die to the bishop, to be current till the King's dies are ready, and afterwards to be current with them; the second, on May 17, orders William Fitz Otho to make the three dies—one for the bishop and two for the King—and send them to Chichester as soon as possible; the third, on July 27, orders the royal dies to be handed over on one year's lease to the bishop on August 1; this last seems to imply that the dies were made and were already at Chichester, or were being sent with the writ, one copy of which was addressed to the custodes cuneorum at Chichester. We must therefore conclude that coins were struck at Chichester in the year 1205.

Of this year we have also a writ of January 26,⁴⁷ appointing William de Wrotham and Reginald de Cornhill his commissioners to carry into execution an assize

⁴⁶ Rot. Claus., 7 John (1205), 27 July (p. 44, col. 1).

⁴⁷ Rot. Pat., 6 John (1205), 26 Jan. (p. 54, col. 2).

allowing the currency of "old money" which had not lost more than a certain weight, and forbidding the reblanching and clipping of coins. Previous to this, in 1204 (wrongly dated 1205), was a writ of November 9,⁴⁸ forbidding the circulation of clipped money after the St. Hilary's Day following (January 13, 1205). But more important than these are two notices in our chronicles. The *Annales Cambriae* and the *Annales de Wintonia* both say, under the year 1205, "Mutatio monetae facta est;" and the *Annals of Waverley* give us a reason for this change in the money in the phrase, "Facta est turbatio magna in regno per tonsuram sterlingorum." Also in the "Miscellanea" of the *Numismatic Chronicle* for 1887 (p. 341), Mr. Andrew drew attention to a passage, before unnoticed, in the continuation of Florence of Worcester, which says, "Moneta olim A.D. MCLVIII. facta, hoc anno [1205] est renovata." Sir John Evans noticed the first two of these references to a new coinage; but Mr. Grueber did not follow them in dating the five classes of short-cross coins—he seems to have chosen the year 1208 for the commencement of the third class, on the ground of the writ of October 7, 1207, summoning the moneyers, &c. That we cannot ignore the chroniclers' statements in this way is evident; a simple statement made by a chronicler recording a change in the currency gives a more definite proof of a new coinage having taken place than we can get from any writ in the Patent or Close Rolls. The King might issue a writ ordering a new coinage to be in currency and all other to be withdrawn, but might later cancel his order; we have an example of this in the writ of February 21, 1222,⁴⁹ in which Henry

⁴⁸ Rot. Pat., 6 John (1204), 9 Nov. (p. 47, col. 2).

⁴⁹ Rot. Claus., 6 Henry III (1222), 21 Feb. (p. 516, col. 1).

III orders round halfpennies and farthings to be current. This order was undoubtedly cancelled, as no round halfpennies or farthings of his reign have been found, in spite of the large finds that have made his coins so common in our time. On the other hand, a chronicler is not recording any intention of the King or his officers, he is giving a bare statement of a fact which it was very necessary for him to know—that a new type is in circulation, and previous types perhaps no longer legal tender. Stow⁵⁰ says of this year, "Also, the money was so sore clipped, that there was no remedie, but to have it renued." Bishop Fleetwood⁵¹ also says, "King John, observing that the Abuse of Money was either in a great part continued or revived, called it in again, and caused it to be new coined; and thereby brought it to a greater Purity and Fineness than it had been before in any of his Predecessors' reigns. On which Account some Authors fix upon him as the Inventor or first Ordainer of Sterling Money." I think they were right in putting the new coinage in this year. I admit that the annalists are known occasionally to make mistakes in point of chronology, but before we can assume a mistake in them, we must have some reason for thinking their statement is wrong. Here we have strong reason for believing this statement in the *Annales de Wintonia*, the *Annales Cambriae*, and the continuation of *Florence of Worcester* to be correct. The likelihood of a new coinage in this year is very strong in consideration of the fact that until December, 1203, John was only in England on three separate occasions after his accession: (1) in 1199, from May 27 to

⁵⁰ Stow, *Annals of England* (1615), p. 167, *sub anno* 1205.

⁵¹ Fleetwood, "Historical Account of Coins," p. 12, in Appendix to *Chronicon Preciosum* (1745).

June 29, for his coronation ; (2) in 1200, from February 27 to April 28, for the purpose of raising 20,000 marks to pay Philip for his admission as heir to Richard's French possessions ; (3) from October 6, 1200, till May 14, 1201, for his queen's coronation, after which he went to Lincoln to receive homage from the Scottish and Welsh kings, staying there till November 26 for Bishop Hugh's funeral : he spent Christmas at Guildford, and then made a tour in the north with Isabel till March 1, held an Easter crown-wearing at Canterbury on March 25, and, after raising an army for his expedition to Normandy, returned to France on May 14, 1201, where he stayed till December, 1203. In 1204 we see, by the writ of November 9 and the entry in the Waverley Annals, that the clipping and debasing of the coinage was causing great distress : therefore John, I think, made preparations for a new coinage at the end of this year, the earliest possible opportunity, and the purpose of the assize of January 26, 1205, was to allow the old ⁵² coinage to continue in circulation until the dies were ready to strike the new type ; then, when the dies were made, I assume that an order must have been issued cancelling this clause of the assize.

This agrees entirely with my former conclusion with regard to the Chichester Mint ; if these coins are wrongly attributed, as I have attempted to prove, we have no coins of this mint in Class II. ; we know that the mint began working in 1205, and if we put the new coinage (Class III.) at the end of 1207 or early in 1208, we are at a loss to account for the survival of no coins of

⁵² The "*vetus moneta*" must imply a "*nova moneta*," either in circulation or in preparation.

Chichester struck between the reopening of the mint in 1205 and the new coinage in 1207 or 1208. But putting the new coinage, as Sir John Evans suggested, in 1205, the Chichester Mint reopens with Class III.

This date for the new coinage will also give us the reason for the summons of moneyers in 1207; Longstaffe says,⁵³ "A new silver penny was much more easily counterfeited than an old one, and rogues seem to have been more than usually busy at new coinages." A new type obviously lends itself to forgery, as the fraudulent moneyers can easily pass even a poor imitation into currency before the type of the true money becomes familiar to the public eye. I think this new coinage of 1205 must have been followed by a large issue of counterfeit coins which necessitated the inquiry instituted with the peremptory summons of October, 1207.

Further, this summons was sent to the mints at Lynn, Oxford, Rochester, and St. Edmundsbury, which seem not to have been working during Class II.; if Class II. continued till 1207, why were the officers at these mints ordered to bring their dies to London, when they had none to bring? At Shrewsbury the reverse is the case: this mint was working in Class II. and not in Class III., but no summons was sent to Shrewsbury in 1207. It seems not unnatural to suppose that at the reformation of the coinage in 1205 mints were reopened at Lynn, Oxford, Rochester, and St. Edmundsbury, and at the same time the mint at Shrewsbury was closed.

In conclusion, I would say, with regard to the corrections I have made in the dates assigned to writs, &c., that any doubt can easily be satisfied by an examination of the

⁵³ *Numismatic Chronicle*, 1863, p. 177.

Itinerary of King John.⁶⁴ I will illustrate this by the charters I have transcribed, which refer to the Chichester Mint. The first of them is dated April 29, 1205, and signed at Westminster: by the Itinerary we find that John was in London from April 27 to April 29, 1205, whereas in 1204 (the date previously given to this charter) he was at Marlborough on the same days of this month. The second is dated May 17, 1205, and again signed at Westminster, and the King was at Westminster from May 15 to May 17, 1205; but in 1204 he was at Southampton on May 15, and Winchester on May 18. The third is signed on July 27, 1205, at Mitcheldever, where we find by the Itinerary King John stayed from July 27 to July 30 in this year.

I am much indebted to Mr. Johnson of the Public Record Office, and Mr. Ellis and Mr. Herbert, of the Department of Manuscripts in the British Museum, for the kind assistance they have given me, and also to Mr. Lawrence, to whom belong some of the coins which illustrate this paper.

GEORGE C. BROOKE.

⁶⁴ The Itinerary may be found in Sir Thomas Duffus Hardy's *Introduction to the Patent Rolls*.

MISCELLANEA.

NOTE ON THE COINAGE OF MUHAMMAD ALI.

IN Plate V. of this volume illustrating Major Jackson's article on the Coinage of the Carnatic, two coins, Nos. 1 and 14, differ so conspicuously in fabric from the others that one at once doubts their attribution to Muhammad Ali. Major Jackson's readings of these coins (pp. 156, 157) support his attribution, but neither has been read correctly, owing, no doubt, to their poor state of preservation. The obverse legend of No. 1 is سنه ۱۲۰۸ هجری وای . The ی which is above هجری has apparently been taken for جاه by Major Jackson, but the points are quite distinct. The title ای شاه , does not occur on the coin, and the date is not 1201, but 1208, which is the year 35 of Shah Alam II, and not of Muhammad Ali. As to No. 14, all that can be read on the obverse of the specimen illustrated is ی and the date. If several specimens be compared, it will be found that the complete legends are as on No. 1, of which it is the half. These are both well-known coins. They are the Madras issues (2 and 1 pai) of the E.I.C., and have been described in the *B. M. Catalogue, Moghul Emperors*, p. 296, Nos. 184-187, and more recently by the late Mr. Johnson in *Numismatic Chronicle*, 1903, p. 97. Major Jackson appears to have followed Captain Tufnell (*Hints to Coin-Collectors in South India*, p. 36) in attributing these coins to Muhammad Ali, but their weights and style leave no doubt that the attribution to the E.I.C. is the correct one. We may note that the following dates are known, all in regnal years of Shah Alam II: 1200, 27; 1201, α ; 1206, 34; 1207, 34; 1208, 35.

There is, however, a series of coins which were certainly issued by Muhammad Ali, which are not described by Major Jackson, *i.e.* the small copper coins, *obverse*, نوب وای شاه , and *reverse*, date and mint, نہترنگر , Nahtarnagar (Trichinopoli; cf. *Manual of Administration of Madras Presidency*, vol. iii. *s.v.* "Trichinopoli"). There are two denominations of these coins;

the larger, octagonal in shape, bears the date 1207 A.H., and is of very neat workmanship. Marsden attributed his specimen (MXLVIII *b*) to Mysore, and suggested it might be a pattern-piece, but it can only be Muhammad Ali's or possibly an E.I.C. pattern in his name. Another specimen of this rare coin is in the collection of Mr. J. Stephens Blackett, who recently presented specimens of the smaller denomination to the British Museum. These are small round pieces closely resembling the other coins of Muhammad Ali. Among other coins not included in Major Jackson's list are those with obverse الا جاله , and date on reverse ١٢١٤ , and specimens having reverse *wālājāh* in Tamil.

J. A.

NOTICE OF RECENT PUBLICATION.

Catalogue of Coins in the Indian Museum, Calcutta, including the Cabinet of the Asiatic Society of Bengal, vol. iii., *Mughal Emperors of India*, by H. Nelson Wright, I.C.S. Oxford. 1908.

THE Trustees of the Indian Museum are to be congratulated on having again secured the services of Mr. Nelson Wright in the compilation of the third volume of the *Catalogue of Coins in the Indian Museum*. The Catalogue, compiled under circumstances of great difficulty by the late Mr. Rodgers, has been of much use to students of Indian coins, but it could only be regarded as a preliminary arrangement of this fine collection. Mr. Nelson Wright has been freed from the restrictions under which his predecessor laboured, notably the mysterious method of numbering which has puzzled most users of the old Catalogue. This volume contains not only the old Indian Museum collection, but also the Mughal Cabinet of the Asiatic Society of Bengal, which is now brought within reach of students for the first time. In the old Catalogue only two plates were devoted to this series; this volume is illustrated with twenty-two plates admirably executed by the Clarendon Press, illustrating all the more important coins.

The author of this volume has adopted a useful and lucid method of arrangement, which, we hope, will be followed in future Catalogues of this series. In the *British Museum Catalogue* the arrangement was primarily chronological, and the coins of different years of the same mint were separated.

Mr. Nelson Wright has arranged the coins of each Emperor under mints, the coins of each mint being then arranged chronologically. The advantages of this method are obvious. It is possible to tell at a glance whether a particular mint was in use during the reign of any Emperor. Coins of similar fabric are brought together, and for the first time we have the material for the study of the fabric and mint-characteristics of Mughal coins, a subject that has been barely touched on. There is undoubtedly such a thing as "fabric" in Muhammadan coins; in the Mughal series, for example, one soon learns to recognize the Lahore coins by their fabric. It is a difficult subject, however, and it is only by such an arrangement as this that further progress can be made in its study. Mr. Nelson Wright has arranged the mints in the order of the English alphabet rather than the Persian. Opinions may differ as to the legitimacy of this, but it seems to us to be justifiable. The object of the Catalogue is to make the collection accessible, and the more lucid the arrangement the better; few of those who will use this volume have reached that stage of scholarship where they think more readily in Persian than in English. Though an elaborate index of mints is rendered unnecessary, we think that the volume might have contained a list of the mints in the Persian character, which would have been useful to refer to when trying to identify a coin with a fragmentary inscription.

The most valuable part of the work is the introduction of eighty pages dealing with the history of each mint in the Catalogue, though founded on material from much wider sources. Mr. Nelson Wright shows great familiarity with the principal public and private collections, and his introduction is a mine of information on which all future more elaborate monographs must be based. It is to be hoped that the author's suggestion will be taken up, and we shall soon see a series of historical monographs on Indian mints. Dr. G. P. Taylor has furnished an admirable model in his account of the mint of Ahmadābād in the *J.B.B.R.A.S.*, vol. xx. pp. 409-447.

Want of space will not allow us to call attention to the rare mints to be found here. We must question the suggested Khārpur on coin No. 2493, and would suggest that it is a coin of Sabārānpur with an incomplete legend. Mr. Nelson Wright has followed the *B. M. Catalogue* in classing as Mughal all coins bearing an Emperor's name till the end of the reign of Shah Alam II. He is undoubtedly right (p. 243) in suggesting that all the coins of Muhammad Shah of Surat are not

official issues. They fall into two distinct classes—one readily recognizable by its good fabric, which may be taken to be official—the second of rude fabric with fragmentary mint inscriptions and various symbols, notably one which Prinsep calls a H , which must be unofficial, and indeed was attributed by him to "Nagpur and the Narbadda" (*P. U. T.*, ii. pp. 66, 68, Pl. xlv. 10), an attribution supported by their present provenance. We have never seen a specimen which read distinctly Surat, though that is the most likely reading unless the so-called H is not a Nagari letter but Persian. Similar doubts might be entertained regarding the numerous Katak coins of Ahmad Shah, very few of which can be official issues. No. 2257 (*mint not read*) is a coin of Bikanir State with legends of Shah Alam II (*Webb*, p. 61), probably of Surat Singh. No. 2487 is probably to be attributed to Orchā rather than Jodhpur.

Besides the usual indices, the work contains a comparative table of the Christian and Muhamnadan eras, and a valuable note on the Ilāhī era, a table of ornaments, and a mint-map. It is unfortunate that the author has not adopted the system of transliteration so strongly recommended by the Royal Asiatic Society. It is true that only three letters differ in the two schemes, but Mr. Nelson Wright gives us four *s*'s where two might have done (ج z , ز z , ض z , ط z), and three *s*'s in place of the orthodox two (ث s , س s , ع s). This is a small matter, however, as the letters concerned are not the commonest. We should have preferred also to see the long vowels marked by a horizontal stroke rather than by an acute accent.

The whole work has been most carefully printed by the Clarendon Press. All who have perused the three volumes of this Catalogue already issued will look forward to the fourth, feeling satisfied that it will at last supply that long-felt want, a satisfactory work on the nineteenth-century coinages of India.

J. A.

ERRATA.

In the Proceedings for Session 1909-1910, issued with Part III. :—

Page 16, line 9, for "Henry VIII" read "Henry VII."

Page 89, line 9, for "Anastasius" read "Athanasius."

XV.

MONETA DI ARGENTO DEI SO(NTINI).



Dir.—In rilievo: toro a s. retrospiciente; le gambe posano sopra una fascetta formata da una serie di perline fra due linee continue; sopra OM, intorno giro di perline fra due linee continue.

Rov.—In incavo: lo stesso tipo in perfetta corrispondenza dell' altro; i due segni grafici appena visibili a luce tangente; la fascetta, dove il toro posa, e il giro circolare sono formati da una serie di intacchi paralleli.

Arg.; diam. maggiore mm. 27; peso gr. 5.30.

LA moneta descritta non è compresa nei trattati di numismatica, perchè non è divenuta di dominio della scienza. Un esemplare di essa comparve la prima volta in un catalogo di vendita a Parigi, e non so dove ora si trovi.¹ L'esemplare che io pubblico mi fu recato in esame tempo fa da un mio amico di Rogliano (prov. di Cosenza), possessore di una piccola raccolta di monete,

¹ V. Catalogo di vendita, fatta nei giorni 11 e 12 dicembre, 1901, al Hôtel Drouot dai Sigg. Dr. A. Sambon e C. Canessa, Tav. i. n. 121.

che egli aveva acquistate a volta a volta da contadini del suo paese. Di modo che, se mi sfugge il luogo esatto di provenienza, si può esser certi che esso resta nel territorio di Rogliano.

Il tipo di questa moneta è identico a quello delle ultime monete incuse dei Sibariti, essendo il disco metallico poco espanso e il fregio presso il bordo non essendo formato dal caratteristico tortiglione.² La tecnica è buona, il toro vi è espresso con un sol corno, perchè la testa è in perfetto profilo,³ con l'occhio circolare, con le pieghe della pelle parallele sotto al collo, con la delicata modellatura del corpo e delle gambe. Ma le lettere iniziali non rispondono al nome dell' antichissimo popolo di Sibari. Quella di destra, che nella epigrafia arcaica ha il valore di μ o di σ , se la studiamo in rapporto con le simili forme alfabetiche di monete delle colonie achee dell' Italia meridionale, ne risulta essere senz' altro un σ . Sulla moneta d'alleanza dei Sirini con Pyxoes,⁴ su alcuni esemplari dei Sibariti e dei Posidoniati⁵ questa lettera presenta le due piccole sbarre estreme parallele fra loro, e la stessa forma ha nella leggenda *Krathis* della moneta di Pandosia.⁶ Solo che nella moneta in esame le due sbarre mediane sono brevissime, ed in genere tutta

² Sullo sviluppo di questo ornato nelle monete delle colonie achee della Magna Graecia, leggasi ciò che ho espresso nella memoria *Sul valore dei tipi monetali*, p. 66 (Atti del Congresso internaz. di scienze storiche, 1904, vol. vi.).

³ Per riscontro tipologico e stilistico giova esaminare il toro retrospiciente intagliato su cristallo di rocca di Ialysos in Perrot et Chipiez, *Hist. de l'art*, vi. Pl. xvi. 1.

⁴ Garrucci, cviii. 1; Friedl.-Sallet, *Münzkab.*, vii. 470; Head, *Coins of the Ancients*, viii. 14.

⁵ Per Sibari v. Head, *Coins of the Ancients*, Pl. viii. 15. Per Posidonia v. Garrucci, cxx. 5, 6.

⁶ Garrucci, cxi. 5.

la lettera è poco espansa in larghezza per l'angustia dello spazio riservato alla leggenda.

Nessuno potrà quindi revocare in dubbio, che i due segni grafici di questa moneta rarissima debbano essere intesi come iniziali di un nome etnico incominciante per *So*. Il tipo del toro per se stesso potrebbe trascinare alla ipotesi di una imitazione barbarica o falsificazione antica dello statere dei Sibariti; ma rendono insostenibile tale ipotesi il disegno e la tecnica della moneta, relativamente incensurabili. Nè il tipo del toro deve distogliere dal ricercare in questo *So* un nome etnico diverso da quello dei Sibariti, poichè anche i Sirini, alleati di Pyxoes, anche gli Aminei adottarono il tipo del toro retrospiciente.

Fra le popolazioni mediterranee della Lucania enumerate da Plinio è inclusa quella dei Sontini. *Mediterranei Brutiorum, Aprustani tantum: Lucanorum autem, Atenates, Bantini, Eburini, Grumentini, Potentini, Sontini, Sirini, Tergilani, Ursentini, Volcentani, quibus Numestrani iunguntur* (Plin., *N. H.*, iii. 15). I commentatori collegano l'etnico Sontini ad una città Sontia, che si crede corrisponda alla odierna Sanza, tra Policastro e il fiume Tanagro.⁷ Nulla perciò impedisce che questa moneta, la quale per il tipo, per la tecnica, per la paleografia e provenienza si collega così strettamente alla serie monetale delle colonie achee nella Magna Graecia, possa riferirsi al popolo dei Sontini, del quale non è pervenuta a noi che la semplice menzione di Plinio. E con essa cresce la lista delle monete di tecnica così detta achea, con iniziali di nomi di città o di popoli, che sotto

⁷ Il Nissen, *Ital. Landesk.*, II. p. 905, nulla di nuovo aggiunge a quanto erasi prima detto.

l'influenza della civiltà di Sibari cominciavano a prosperare fino ad emettere moneta propria, allorchè la distruzione della grande metropoli (510 A.C.) segnò nella Italia meridionale il termine della sua influenza politica e di un indirizzo artistico, oggi detto ionico per convenzione.

Per la famiglia di monete, alle quali questa appartiene, il peso di gr. 5.30 è molto singolare, poichè non si può in alcun modo ricondurre allo statere corinzio ridotto delle colonie achee dell' Italia, e ci richiama senz' altro alla dramma eginetica delle colonie calcidiche e particolarmente alle primitive monete incuse di Rhegium e Messana. Questa particolarità influisce moltissimo a farci ammettere, che la stirpe dei Sontini abitasse un paese molto prossimo al mare, e che i suoi interessi commerciali fossero legati più alle due citate colonie calcidesi che alle colonie achee. Un fatto analogo si avvera per Posidonia, la quale nelle primitive sue monete, pur adottando la tecnica achea, segue il sistema monetale dei Focesi di Elea.

ETTORE GABRICI.

XVI.

ALEXANDRIAN TETRADRACHMS OF
TIBERIUS.

(See Plate X.)

A HOARD of nearly two hundred tetradrachms, which had been found in Egypt, recently came into my possession, through the kind assistance of Signor Dattari; and the evidence derived from an examination of the coins suggests some interesting conclusions.

The composition of the hoard may be briefly given, in terms of the standard catalogues, as follows:—

<i>Ptolemy II, Philadelphus.</i>	Svoronos 713	1 specimen
<i>Ptolemy XIII, Neos Dionysos.</i>	„ 1823 (year 9)	1 „
	„ 1824 („ 10)	3 specimens
	„ 1825 („ 11)	2 „
	„ 1826 („ 12)	3 „
	„ 1827 („ 13)	6 „
	„ 1828 („ 14)	9 „
	„ 1829 („ 15)	6 „
	„ 1830 („ 16)	3 „
	„ 1831 („ 17)	2 „
	„ 1832 („ 18)	15 „
	„ 1833 („ 19)	1 „
	„ 1834 („ 20)	6 „
	„ 1835 („ 22)	2 „
	[date effaced]	2 „
<i>Tiberius</i>	Dattari 78 („ 7)	136 „

There can be little doubt that the hoard was buried soon after the last-named coins were struck in the seventh

year of Tiberius. The issue of tetradrachms in this year was the first which had been made by the Alexandrian mint since the conquest of Egypt by Augustus; *i.e.* for just half a century. There are also tetradrachms of the eleventh, fourteenth, and later years of Tiberius known; and, as no specimens of these years occur in the hoard, and the coins of Tiberius in it are almost all without evidence of wear, it may safely be concluded that the date of deposit of the hoard lies between the seventh and the eleventh years—*i.e.* between August 29, 19 A.D., and August 28, 24 A.D.

The combination of Ptolemaic and Roman tetradrachms in the hoard calls for little comment. The Ptolemaic coinage was probably never withdrawn from circulation by the Roman government; in fact, until the first issue of tetradrachms by Tiberius, the silver currency of Egypt must have consisted of the coins of the old dynasty, and for many years afterwards it is not uncommon for payments to be specified as made in Ptolemaic coin. I have found Ptolemaic silver in a hoard which came down as late as the second year of Probus (276/7 A.D.); and the existence of a considerable quantity in circulation in the third century is shown by the fact that a British Museum papyrus (No. 1243), dated in 227 A.D., records a loan of 152 drachmae ἀργυρίου παλαίου Πτολεμαϊκοῦ νομίσματος.

If, however, the Ptolemaic tetradrachms continued to circulate, those of Tiberius apparently did not. I have observed—and my observation is confirmed by the wider experience of Signor Dattari—that tetradrachms of Tiberius do not occur in hoards associated with those of later Emperors. In several large hoards which I have examined, containing some hundreds of coins of Claudius, and thousands of Nero, there was not one of Tiberius. The

tetradrachms of Tiberius are only found in hoards, in company with earlier coins, or else sporadically, as they were casually lost; and it seems reasonable to conclude that they were called in shortly after the close of the reign in which they were issued. It is possible that the cause of their withdrawal may be found in the facts given in the following paragraphs.

When examining the coins in this hoard, I was struck by the evident difference in the weight of the specimens. I accordingly tested each, and found that the range of weights was from 5.54 to 13.32 grammes. It is hardly necessary to give each individual weight, but the result may be stated summarily in groups of a half-gramme series.

Specimens weighing	$5\frac{1}{2}$	and less than	6 grammes	4
"	"	6	"	5
"	"	$6\frac{1}{2}$	"	9
"	"	7	"	18
"	"	$7\frac{1}{2}$	"	11
"	"	8	"	10
"	"	$8\frac{1}{2}$	"	14
"	"	9	"	15
"	"	$9\frac{1}{2}$	"	9
"	"	10	"	4
"	"	$10\frac{1}{2}$	"	6
"	"	11	"	4
"	"	$11\frac{1}{2}$	"	2
"	"	12	"	5
"	"	$12\frac{1}{2}$	"	7
"	"	13	"	6

[Seven specimens are excluded from the above summary, as they are more or less chipped.]

This remarkable variation in weight, taken in conjunction with certain differences in appearance, led me to suspect that some of the coins might be of baser metal than others; and Professor Letts, of Belfast,

very kindly analysed four of them, with the following result :—

	A.	B.	C.	D.
Weight (grammes)	5.90	9.26	9.50	12.62
Silver (%) . . .	61.08	54.58	35.20	28.72
Copper (%) . . .	32.35	43.35	61.66	69.37
Tin (%) . . .	6.43	1.18	2.14	1.63
Iron (%) . . .	traces	traces	traces	traces

It would appear, from this analysis, that the proportion of silver in these coins varied almost as widely as their weight; and, on further investigation, it became clear that several examples were plated. The conclusion to which these facts lead is that this first coinage of tetradrachms under Tiberius was issued without any regard to fineness or weight; and, if the same holds good of the later coinages of his reign, it is not a matter for surprise that these tetradrachms should have lost favour in the eyes of the public, and have disappeared from circulation when the mint, under Claudius, struck large quantities of fairly uniform weight and fineness, even though the proportion of silver was lower than in those here analysed.

It may be suggested that this hoard represents the work of a forger; but, if this were the case, it would be reasonable to expect that the number of dies would be limited, and a fair proportion of the specimens would be from the same dies. This, as will be seen later, is not found. Neither do any of the coins seem to have been cast, so far as can be judged from outward appearances. The indifference of the strikers of this issue with regard to weight may be seen from the fact that two specimens, from the same obverse and reverse dies,

weigh respectively 8.14 and 5.54 grammes; while three, from the same obverse, but different reverse, dies, weigh 13.29, 12.02, and 5.76 grammes. The analyses given above also show that the weight of a coin does not bear any relation to the percentage of silver which it contains.

The gross carelessness of the mint officials at this time appears no less in the execution of the dies than in the material of the coins. The heads of Tiberius on the obverse and of Augustus on the reverse can in many instances hardly be called portraits. A selection of the representations is given on the accompanying plate, from which it will be seen that the die-engravers not only did their work very roughly, but did not succeed in most cases in producing a head which resembled either the actual likeness of the Emperor or the representation of it on other dies of the same series [see Pl. X. 1-15]. There are many instances of careless work to be found in the later history of the Alexandrian mint; but I have not come across such a variation in portraiture of the Emperor after this until the reign of Valerian. The flans are also, in nearly every instance, too small, and frequently of irregular shape.

I examined and compared all the 136 specimens, to discover how many instances there were of two or more coins from the same die, and found one set of three from the same obverse die, two of which were from the same reverse; one set of two from the same obverse and reverse dies; two sets of three, and seven of two, from the same obverse, but different reverse, dies; and one set of two from the same reverse, but different obverse, dies. It occurred to me that it might be possible from these figures to ascertain the probable number of dies used; and

Mr. W. F. Sedgwick very kindly worked out the problem in a long series of calculations, from which it appears that the most probable number of obverse dies used was 610, and that, on making certain suppositions, the most probable number of reverse dies used up in connexion with each obverse die was between 8 and 9.

These conclusions are of considerable interest, especially the latter. It is common ground that the reverse dies of ancient mints wore out more quickly than the obverse ones; but at first sight it may seem that the rate of eight or nine reverse dies to one obverse is rather excessive. A high rate is, however, supported by other evidence which I have been able to obtain. In comparing 309 coins of Valerian from one hoard, I found 32 sets of two coins from the same obverse dies, of which 11 sets were from the same obverse and reverse, the remainder all from different reverse, dies; five sets of three, and one of four, from the same obverse, but different reverse, dies; and three sets of two from the same reverse, but different obverse, dies. After examining specimens from two hoards, I have made a series of five coins of Otacilia Severa from the same obverse, but different reverse, dies. These facts, so far as they go, appear to be in general accordance with Mr. Sedgwick's conclusion. And this rapid wear of reverse dies furnishes an explanation of the great inferiority in execution of the reverses of Alexandrian coins as compared with the obverses: it is quite usual to find an obverse type of considerable artistic merit associated with a very rudely designed reverse type; and it is not unnatural that the greater pains should have been spent on preparing the dies which were likely to be of longer service. It may be noted that it is not uncommon to find an Alexandrian coin struck

from a split obverse die, but very rare to find one from a damaged reverse, which suggests that a large supply of reverse dies was always at hand, and as soon as one began to crack it was thrown away; but a damaged obverse die would not be so readily discarded. Probably a flaw in a reverse die would be more easily noticed than one in an obverse.

J. GRAFTON MILNE.

NOTE.—The examples shown on Plate X. have been chosen to show the range in variation of the portraiture. 5 and 13 (the obverse and reverse of the same coin) are instances which show how the plating has perished in some cases: while in 6 the plating is splitting away across the cheek of the Emperor's portrait.

XVII.

THE MEDALS OF PAUL II.

(See Plates XI.-XIII.)

THE medals of Pier Barbò, both as Cardinal of San Marco and as Pope Paul II, although seldom of very high artistic interest, are well worthy of study. For with this Pope begins the series of official Papal medals. True, there are medals of Nicolas V, Calixtus IV, and Pius II, by Guazzalotti, but these are isolated portrait pieces of an essentially personal kind. With Paul II, on the other hand, begins a long series of commemorative medals, which, although in the first instance made by fairly good artists, foreshadow the depressing products of the Papal mint in the sixteenth and later centuries. Pier Barbò was himself, it is well known, an enthusiastic collector of coins and medals, ancient as well as modern.¹ It was he who, in 1455, by something like main force, extracted from Carlo de' Medici some silver medals (or coins) which Carlo had bought from Pisanello's garzone; and he had the queer notion of copying some of Pisanello's medals on the tiles which he used to roof the Basilica of San Marco in 1467. It

¹ See the inventory of his collection published by Müntz, *Les Arts à la Cour des Papes*, ii pp. 265-279. Canensius, *Pauli II . . . Vita* (ed. 1740), pp. 31, 32, gives a naive account of Paul's skill in identifying the portraits of Roman Emperors on coins.

was thus but natural that he should wish to see himself commemorated by this pleasing art.

I propose first to give a list, as complete as possible, of the medals which concern us, before entering on the discussion of their significance and possible attributions to known medallists. The later struck pieces, restorations of the sort which are attributed to Paladino, do not of course call for description or consideration here.²

1. *Obv.*—PETRVS · BARBVS VENETVS CARDINALIS S ·
M̄ARCI Bust to l., tonsured, wearing cope.

Rev.—HAS · AEDES · CONDIDIT ANNO CHRISTI · M ·
CCCCLV Shield (heater-shaped) of the arms of Barbò of Venice: [azure], a lion [arg., langued gu.], debriused by a bend [or]; surmounted by a cardinal's hat.

Rosenheim Coll., bronze, 34 mm. [Pl. XI];
British Museum, bronze, 34·5 mm. See Keary,
Guide, No. 309; Armand, ii 31. 2 (34 mm.);
Supino, 175 (34 mm.); Fabriczy (Eng. trans.),
pp. 156, 157, Pl. xxxii 2.

2. *Obv.*—From the same mould entirely as No. 1.

Rev.—HAS · AEDES · CONDIDIT ANNO CHRISTI · M ·
CCCCLV View of the Palazzo di Venezia.

British Museum, bronze, 35 mm. [Pl. XI];
Arm., ii 31. 1 (34 mm.). The inscription on
the reverse is from the same model as that on
No. 1, showing that the models of inscription
and type were separable.

3. *Obv.*—PETRVS BARBVS · PAVLVS · PAPA · SECVNDVS
Bust to l., from the same model as on Nos. 1, 2.
The first two words of the inscription are
also from the original model.

² My best thanks are due to Mr. Max Rosenheim and to M. J. de Foville of the Bibliothèque Nationale for casts of medals concerned. All the medals here described, except the original of No. 14, were cast, not struck. In the descriptions, ligatured letters are represented with a line above them.

Rev.—14 64 across the field; shield of the Barbò arms as on No. 1, surmounted by crossed keys and Papal tiara; the shield is apparently from the same model as that on No. 1.

Bibliothèque Nationale, 31 mm. [Pl. XI].
Arm., ii 31. 3.

4. *Obv.*—PAVLVS · VENETVS · PAPA · II · Bust to l., tonsured, wearing cope with floral decoration on orphrey, and a morse with a nimbate bust.

Rev.—HANC ARCEM CONDIDIT ANNO CHRISTI · M · CCCCLXV · The shield of the Barbò arms surmounted by the Papal tiara.

Arm., ii 32. 6 (after Litta).

5. *Obv.*—Same as No. 4 (doubtless same model).

Rev.—HAS · AEDES · CONDIDIT ANNO CHRISTI · M · CCCCLXV · The Palazzo di Venezia. (See No. 10.)

British Museum, bronze, 33·5 mm. [Pl. XI].
Arm., ii 32. 4; iii 163a (set in a rim making diameter 52 mm.); Supino, 177 (32 mm.).

6. *Obv.*—Same model as No. 5.

Rev.—LETITIA · SC HOLASTICA · and in exergue · A · BO Female figure standing to l., in attitude of Spes (holding flower in raised r., raising skirt with l.); beside her, two small scholars, one (on left) with bare legs, the other (on right) wearing mantle and carrying a circular object.

Rosenheim Coll., bronze, 32 mm. [Pl. XI];
Arm., ii 32. 7.

7. *Obv.*—Same as No. 5.

Rev.—HILARITAS PVBLICA Female figure, classically draped, standing to front, looking to l., supporting palm-branch with r., holding cornucopiae in l.; beside her a small boy (nude) and girl.

Arm., ii 32. 8 (after Litta). The type is copied from Hadrian's coins with HILARITAS P · R ·

8. *Obv.*—PAVLVS · II · VENETVS · PONT · MAX Bust to l., as on obverse No. 5 (from the same model).

Rev.—Same as No. 4 (doubtless from the same model).
British Museum, bronze, 33·5 mm. [Pl. XI].

9. *Obv.*—Same model as No. 8.

Rev.—HAS · AEDES CONDIDIT ANNO CHRISTI · M · CCCCLXV. Same type as No. 8, and from the same model; the inscription is also from the same model, the first two words only having been altered from HANC ARCEM to HAS AEDES.

British Museum, bronze, 33 mm. [Pl. XI]. See *Arm.*, ii 32. 9 (34 mm.); *Supino*, 179 (32 mm.). That this reverse is made from No. 8, and not *vice versâ*, is shown by the irregularity of the spacing between the first two words, as compared with the rest; in No. 8 the spacing is regular throughout. In fact, traces of the C of HANC are visible.

10. *Obv.*—Same model as No. 8.

Rev.—Same as No. 5, from the same model. The inscription is from the same model as was used for No. 9.

British Museum, bronze, 34 mm.; cp. *Supino*, No. 176 (32 mm.).

11. *Obv.*—Same as No. 8.

Rev.—Same as No. 7.

Florence. *Supino*, 180 (32 mm.).

12. *Obv.*—PAVLVS · VENETVS · PAPA · II · Bust to l., as on obverse No. 8. (This obverse has been made from a specimen of obverse No. 8 by leaving out the II · after PAVLVS, and altering PONT · MAX · into PAPA · II ·)

Rev.—Similar to No. 9, from a specimen of which it has been made, but the whole of the inscription has been shifted round some 3 mm.

Mr. Lincoln's stock, 33 mm. Specimens occur set in a moulded rim; e.g. *Trésor de*

Num., Méd. Ital., i Pl. xxiii 6 (50 mm.);
Arm., ii 32. 5; Supino, 178; Mr. Lincoln's
 stock (52 mm.).

13. *Obv.*—PAVLVS · SECVNDVS · PONT · MAX Bust to l.
 as on obverses Nos. 4 and 8 (same model);
 inscription from same model as obverse
 No. 8, II·VENETVS having been altered to
 SECVNDVS.

Rev.—Similar to No. 7, and doubtless from the same
 model.

British Museum, bronze, 33·5 mm. [Pl. XI];
 Bibliothèque Nationale, 33 mm. See *Arm.*,
 iii 162B.

14. *Obv.*—✠ SACRVM · PVBLICVM · APOSTOLICVM CON-
 CISTORIVM · PAVLVS · VENĒTV' · PP · II ·
 The Pope, enthroned, presiding; on either
 side of him, six Cardinals seated; in the centre,
 three clerks, members of the clergy, and two
 persons in lay dress; behind the Cardinals,
 the public; below, the Barbo arms on a kite-
 shaped shield surmounted by crossed keys and
 tiara.

Rev.—✠ IVSTVS · ES · DOMINĒ · ET · RECTVM ·
 IVDICIVM · TVVM · MISERERE · NOSTRI ·
 DO · MISERERE · NOSTRI Christ in glory,
 in a mandorla of cherubs' heads, held by two
 angels issuing from clouds; in the Heavens
 are seen the Saints, the Sun, Moon and Stars;
 lower, the twelve Apostles seated (each with a
 book and an attribute), and, behind them,
 fifteen other saints, all nimbate; below, on an
 altar or tomb, emblems of the Passion (column,
 nails, lance, sponge in a cleft reed, and two
 scourges), and above them two angels issuing
 from clouds holding cross, on which is the
 crown of thorns; on either side, the dead
 rising from their graves to the sound of trum-
 pets blown by two angels; on l. of the altar,
 the Virgin; on the r., St. John Baptist.
 Inscription between two plain circles, of which
 the inner one is double.

British Museum, bronze (78·5 mm.), cast
 from a struck original (Fig. 1). Friedländer,



FIG. 1 (No. 14).

Die geprägten Ital. Medaillen des fünfzehnten Jahrh. (Berlin, 1883), p. 14, Pl. ii 12 (silver, 78 mm.). Armand (ii 33. 19) describes a specimen struck in gold, value 20 zecchini (cp. iii 163e). Is this the piece that was given in 1497 by Alexander VI to Boguslav X of Pomerania (*Z. f. N.*, vi p. 254)? In the Print Room of the British Museum are impressions from a specimen, but they are modern. Cast specimens like the one described are in most collections.

15. *Obv.*—PAVLVS · II · VENETVS · · PONT · MAX ·
Bust to l., wearing cope similar to obverses
Nos. 4, 8, and 12, but with plain morse.

Rev.—Within a heavy oak-wreath, ANNO | CHRISTI |
MCCCCLXX | HASAEDES | CONDIDIT in five
lines.

British Museum, lead, 39 mm. [Pl. XII,
rev.]; cp. Arm., ii 33. 16; Supino, 185
(38 mm.).

16. *Obv.*—Same as No. 15.

Rev.—PABVLVM SALVTIS (in exergue). SS. Peter and Paul nimbate, seated, each in front of a palm-tree; between them, a flock of sheep moving up to the Sacred Mount, to drink of the waters which flow out under arches; the arches support a structure, in which stands the Agnus Dei, with a chalice beside him; above his head, the Christian monogram (?) in a circle; above the roof, a large cross.

British Museum, bronze, 39·5 mm. [Pl. XII];
see Arm., ii 33. 14; Supino, 184 (38 mm.).

17. *Obv.*—Same as No. 15.

Rev.—Within a laurel-wreath IACOBVS | GOTTIFRE-
DVS | ROMANVS · PHISICVS | EIVSDEM ·
SVFFRA | GIOHASEDES · AFV | NDAMENTIS |
EREXIT in seven lines.

British Museum, bronze, 38·5 mm. [Pl. XII,
rev.]; Arm., ii 32. 11.

18. *Obv.*—Same as No. 15.

Rev.—Same as No. 24, below (same model), but the inscription replaced by SACER SENATVS

Mr. Lincoln's stock, bronze, 40 mm.

19. *Obv.*—Same as No. 15.

Rev.—FELIX above, ROMA below. Summary and conventional view of Rome. Plain linear border.

British Museum, bronze, 37 mm. I mention this late after-cast and hybrid only for the sake of completeness. The reverse is one of those invented in the sixteenth or seventeenth century for the series with imaginary portraits of the early Popes; it is used on various pieces representing Popes from Pelagius II onwards.

20. *Obv.*—PAVLVS · II · VENETVS · · PONT · MAX ·

Bust to l., orphrey decorated with panels, showing SS. Peter and Paul standing side by side, St. Peter healing the cripple, &c.; on the morse a half-figure of the Virgin and Child. (This obverse has been made from a specimen of obverse No. 15, the whole of the bust, though not the head, having been re-worked.)

Rev.—Same as No. 17 (same model).

British Museum, bronze, 38·5 mm. [Pl. XII, *obv.*].

21. *Obv.*—Same as No. 20.

Rev.—Same as No. 15 (same model).

Bibliothèque Nationale; *cp.* Arm., ii 33. 16; Supino, 185.

22. *Obv.*—Same as No. 20.

Rev.—· ANNOCHRIS TIMCCCGLXXHAS AEDESCON-
DIDIT · and, in exergue, ROMA View of the
Tribune of St. Peter's; on the arch, TRIBVNA
· S · PETRI and, on the apse, figure of Christ,
blessing, in a mandorla supported by two
kneeling angels.

British Museum, bronze, 39 mm. [Pl. XII,
rev.]; lead, 38 mm.; Arm., ii 32. 10 (39 mm.);

Supino, 183 (37 mm.). Both Armand and Supino give the date as MCCCCLXV; but on both the British Museum specimens, which show no sign of alteration, the date is clearly MCCCCLXX.

23. *Obv.*—Same as No. 20.

Rev.—CONSISTORIVM | PVBLICVM (in exergue); the Pope, accompanied by Cardinals, seated on a dais, receiving and blessing the faithful, who kneel to kiss his toe; in the background, architecture, with the Barbò shield suspended.

British Museum, bronze, 39.5 mm. [Pl. XII, rev.]; Rosenheim Coll., bronze, 39 mm.; Arm., ii 32, 12; Supino, 181.

24. *Obv.*—Same as No. 20.

Rev.—Same as No. 23 (same model), but the shield erased and the inscription replaced by · AVDIENTIA · PVBLICA · | · PONT · MAX ·

British Museum, bronze, 39 mm. [Pl. XII, rev.]; Arm., ii 33, 13; Supino, 182. The lettering on this reverse is of the same crowded, niggling kind as is found on the reverse of the Gottifredo medals (Nos. 17, 20). That of No. 23, on the other hand, is bolder and better.

25. *Obv.*—Same as No. 20.

Rev.—Within a laurel wreath, shield (horse-head shape) of the Barbò arms, surmounted by Papal tiara.

British Museum, bronze, 38.5 mm. [Pl. XII, rev.].

26. *Obv.*—Same as No. 20.

Rev.—Within a heavy, formal wreath, shield (heater-shaped) of the Barbò arms surmounted by crossed keys and tiara, all in high relief, the field being deeply cut away.

British Museum, bronze, 38 mm. [Pl. XII, rev.]; Arm., ii 33, 15. See below, No. 30.

27. *Obv.*—PAVLO · VENETO · PAPE · II · ITALICE · PACIS · FVNDATORI and ROMA (the last word between three ears of corn tied together, and a bunch of grapes on a stalk). Bust to r., wearing cope adorned with floral scroll-work; large circular morse. The whole in formal wreath.

Rev.—Same as obverse (same model).

Rosenheim Coll., bronze, 44·5 × 38 mm. [PL. XIII]; British Museum, bronze (same dimensions); Supino, 180 (45 × 38 mm.).

28. *Obv.*—Same as No. 27 (same model).

Rev.—Shield (horse-head shape) of the Barbò arms surmounted by crossed keys and tiara; formal wreath border.

(a) Rosenheim Coll., bronze, 44·5 × 37·5 mm. [PL. XIII, rev.]; (b) British Museum, bronze, 43·5 × 37·5 mm. These two specimens vary in minute details on their reverses.

29. *Obv.*—Same as No. 27 (same model), but wreath replaced by border of dots.

Rev.—Same as No. 28a (same model).

British Museum, bronze, 43·5 × 37 mm.

30. *Obv.*—Same as No. 29 (same model).

Rev.—Shield (heater-shaped) of the Barbò arms surmounted by crossed keys and tiara (same work, perhaps same model, as the shield and insignia on No. 26); formal wreath border.

Rosenheim Coll., bronze, 42·5 × 36 mm. [PL. XIII]; Arm., ii 33. 17 (44 × 38 mm.); Supino, 186 (42 × 36 mm.).

31. *Obv.*—Same as No. 27 (same model), but wreath removed altogether.

British Museum, bronze, 38·5 × 32·5 mm.; cp. Litta, Barbò No. 16.

This obverse exists, so far as I know, only without a reverse (Mr. Lincoln's stock) or attached to a plaquette of Apollo and Marsyas (as Molinier, *Plaquettes*, i p. 2, No. 2, but without inscription). It hardly deserves to count as a separate variety of medal.

32. *Obv.*—PAVLVS · VENETVS · PP · II · PO · MA · PACIS ·
 FVND · Bust to l., wearing cope with plain
 orphrey and circular morse.

Rev.—CONVIVIVM PVB · ERGA POPVLVM ROMANVM ·
 and ROMA between two cornucopie in saltire.

British Museum, bronze, 19 mm.; *Arm.*, ii
 33. 18.



FIG. 2A (No. 84).—Obverse.

33. *Obv.*—PAYLO · VENETO · PAPE · II · ANNO · PVBLI-
 CATIONIS · IVBILEI and, below the bust,
 ROMA, between three ears of corn tied together
 and a star. Bust to r., wearing tiara and
 cope fastened with circular morse.

Rev.—Same as obverse. Guilloché border on both sides.

British Museum, bronze (68.5 × 45 mm., with ear, making the height 82 mm.) [Pl. XIII]; *Arm.*, iii 162*D* (66 × 44 mm.); Simon Collection, No. 331; Löffbecke Sale, lot 63 (64 × 41 mm.).



FIG. 2B (No. 34).—Reverse.

34. *Obv.*—Between two cable circles, + PAVLVS · VENETVS · PP · MCCCC LXIII (stops: lozenges with incurved sides; after the fourth C of the date, a mask). Bust to l., wearing richly jewelled tiara and cope.

Rev.—Crossed keys surmounted by tiara.

Rosenheim Coll., bronze, 94 mm. (Fig. 2A and 2B); see *Burlington Magazine*, December, 1907, p. 149, Pl. iv 2; *Arm.*, ii 34. 23 (from the Heiss Collection, 98 mm.). Armand has somewhat rashly placed this medal among the "restitutions." It looks more like a jeweller's than a medallist's work, and this may have aroused his suspicions. The tiara seems to be meant for the same one that is worn by the Pope in his bust in the Palace of San Marco, the decoration being mainly of fleurs-de-lis. The morse seems, however, to be different.

35. *Obv.*—PAVLVS · | P̄P̄ · II · in the field; the Pope seated r. on the throne, between two cardinals, receiving seven kneeling persons.

Rev.—St. Peter (holding keys and book) on r. and St. Paul (holding sword and book) on l., seated to front, nimbate, looking at each other; between them, on the ground, a cross on a base; above,

· S · S ·
P P
A E
V T

Cable border on both sides.

Paris, 42 mm. (with ear for suspension) [Pl. XIII]; *Arm.*, iii 162C; Rosenheim Coll., 41 mm. This is really only a cast from a bulla, worked up. It seems, however, to have been used as a medal, since it exists in a number of specimens in bronze.³

³ For the bulla on which this is modelled, see Bonanni, i p. 79 (document of 1467, from Macrus, *Hierolexicon*); d'Arcq, *Inventaire*, 6079 (attached to a bull of 1468, given at San Marco in favour of the goldsmiths of Paris), also 6080; Birch, *Catalogue of Seals*, 21954 ff. In the medal the decoration of the field has been chased away. If this medal is only a cast of a seal, there is, on the other hand, some doubt about the bulla of Calixtus III (Birch, 21946). This bears on one side a portrait of the Pope modelled exactly on Guazzalotti's medal (*Arm.*, i 49. 7). The other side (with the usual design of the two heads) does not match it in size; and unless a specimen of this bulla is found appended to an actual document, some suspicion must attach to it.

The interpretation of the medals described above is in most cases fairly simple, although their chronological arrangement is not very easy. First of the Papal medals I have placed that which was remade out of one of the medals of 1455 (No. 3). When exactly this piece was cast, it is difficult to say with certainty; but there is no strong reason to suppose that it was not made in the year which stands on the reverse. The forms of the numerals are those in use at the time. Also, any person making a "restitution" at a later date would have been more likely to use one of the numerous other medals which originated during Paul's tenure of the see. The existing medal of the Cardinal, on the other hand, might very naturally be seized upon at the time of his election and modified so as to commemorate the event.

All the pieces which bear the inscription *HAS AEDES* or *HANC ARCEM CONDIDIT* were obviously made for use in foundation-deposits. The Pope's implacable enemy, Platina, makes this harmless practice a count in his charge against the man who dismissed him from his post: "He used to deposit, after the ancient custom, an almost infinite number of coins of gold, silver, or bronze, bearing his portrait, *sine ullo senatus consulto*" (a serious aggravation of the crime in the eyes of the pedant!) "in the foundations of his buildings, herein imitating the ancients rather than Peter, Anacletus, and Linus." Cardinal Ammanati also makes the same complaint, that the Pope not only strikes coins with his portrait, but places them in the foundations and walls of buildings, in order that, when they fall to the ground with age there may fly out, after a thousand years, monuments of the name of Paul.⁴ So indeed it has come to pass.

⁴ The passages are quoted by E. Müntz, *Les Arts à la Cour des*

Specimens of Paul's medals, both of 1455 and of 1465, were found in the walls of the Palazzo di Venezia in 1857 and in 1876.⁵ Again, Jacopo Gottifredo's house in the Piazza di Pasquino was converted into the Oratory of the Arciconfraternità degli Agonizzanti in 1692, and on this occasion there was found a bronze specimen of one of his medals (No. 17 or No. 20).⁶ Other medals, including some with the type of Nos. 23 and 24, were buried in the portion of the Vatican front which was built by Paul.⁷

There is, of course, no doubt that the building which appears on Nos. 2, 5, and 10 is the Palazzo di Venezia or di S. Marco. We know little about the appearance of the original palace. It is interesting to note that

Papes, ii p. 5. With reference to this custom of burying medals, Timoteo Maffei has an interesting passage in a letter written in 1453, to Sigismondo Malatesta (quoted by Friedländer, *Ital. Schaumünzen*, p. 43, from Zanetti, *Raccolta*, v, p. 414 n. 327): *ad quandam tui nominis immortalitatem Matthaei Pasti Veronensis opera industriaeque* [Zanetti gives *industriis quidem*, which makes nonsense] *vidi aere auro et argento innumeras quasi coelatas imagines quae vel in defossis locis dispersae vel muris intus locatae vel ad exterarum nationes transmissae sunt.*

⁵ Dengel, Dvořák und Egger, *Der Palazzo di Venezia in Rom* (Vienna, 1909), p. 14, note 2. Signor G. Zippel, "Per la storia del Pal. di Venezia," in *Ausonia*, ii (1907), p. 116, gives entries from accounts for making *bochalette* (earthenware receptacles) for putting medals in the new walls of S. Marco (May 13, 1466), also *pro faciendis fragalibus in fabrica S. Marci* (February 15, 1470), and *ad emendum vasa pro reponendis medallis in muris fabricarum* (November 16, 1470), and for *certis pingatis depictis emptis ad ponendum fragallas in fabrica* (March 16, 1471). Signor Zippel has, with the utmost courtesy, allowed me to make use of the proofs of the appendices to his edition of the Lives of Paul II in the new issue of Muratori. From documents there collected by him we learn that payments were made on March 2, 1469, to Christoforo da Mantova for making *fragallos seu medalias pro fabrica sancti Marci*; and on July 19, 1469, to the same medallist, for making *medalias* for the same object. The etymology of the word which is here equated to "medal" is unknown to me.

⁶ P. Mandosio, *Θέαρρον* (ed. 1696), p. 105. See also below, p. 358.

⁷ Müntz, *op. cit.*, p. 34, note.

the medal shows trefoil-headed windows, and that one such is still preserved in the building.⁸ The wording of the inscription, HAS AEDES, &c., on the medal is identical with that which stands on the east front of the palace.⁹ What, however, is the *arx* referred to on Nos. 4 and 8? It is hardly likely that the word would be applied—although not altogether unsuitable to such vast fabrics—to the Palace of S. Marco, or to the Vatican. On the other hand, it would be apt to the Capitol or to the Castle of S. Angelo.¹⁰ But the work which we know to have been done on those buildings during Paul's pontificate would hardly warrant such a reference as the medal makes. May it not be that Paul, among his other magnificent schemes, had a plan for extensive alterations in one or other of these places, and that the medal was prepared accordingly? Such anticipatory medals are common enough, the most famous being the medal of the "Descente en Angleterre" of Napoleon; and a nearer parallel is afforded by the medal of Sigismondo Malatesta, showing the never-completed façade of S. Francesco at Rimini. It is some slight argument in favour of this interpretation, that the words HANC ARCEM were cut out of the inscription and replaced by HAS AEDES. This looks as if the medal was originally made for an object which was afterwards abandoned.¹¹

⁸ Dengel, &c., *op. cit.*, p. 14 and Pl. xiii.

⁹ Dengel, &c., *op. cit.*, p. 155, No. 1.

¹⁰ Documents referring to work here, chiefly on the dungeons, from January, 1466, onwards, are given by Müntz, pp. 90-92, 94; cp. E. Rodocanachi, *Le Château de Saint-Ange*, p. 73.

¹¹ Bonanni, *Numismata Pontificum*, i pp. 87 f., describes a specimen with the obverse of the Cardinal medals, and the reverse of No. 4, but with the date MCCCCLV, which is an impossible or at any rate false combination, since the type shows the Papal tiara. His illustration of the reverse, however, has the correct date.

We have also medals referring to work begun or carried out in 1470 on one or more constructions. One of these was doubtless still the Palazzo di Venezia, since, as we have seen above,¹² medals were being made for it in that year. No. 15 does not specify any particular building, but No. 22 identifies the *aedes* (*aedem* would have been, perhaps, more correct here) as the Tribune of St. Peter's. As Müntz has remarked, it is in this year 1470 that entries begin to appear in the accounts referring to work on the Tribune.¹³ Paul's splendid enterprise never seems to have been carried very far by himself, although he spent enormous sums on it, and it was not continued by his successor.

The medal "Letitia Scholastica" (No. 6) has been referred¹⁴ to the reorganization by Paul of the Roman University. This piece is the only one of the series which bears an artist's signature, A. BO. Bonanni,¹⁵ it is true, explains this as an abbreviation of Academia Bononiensis, so that the medal would refer to benefits conferred by Paul on the University of Bologna. But Milanesi's identification¹⁶ of the artist as Aristotile Fioravanti, to whom we shall return, is much more probable.

"Hilaritas Publica" (Nos. 7 and 11) seems to commemorate the celebration of the election of Paul to the papacy.¹⁷ He added greatly to the gaiety of the people by his elaboration of the Carnival festivities, and the little

¹² P. 354, note 5.

¹³ *Op. cit.*, pp. 44 ff.

¹⁴ Müntz, *op. cit.*, ii p. 2, note 1.

¹⁵ Vol. i p. 86.

¹⁶ Armand, iii 163b.

¹⁷ Bonanni, i p. 83. For the public rejoicings on this occasion, see also Canensius, *op. cit.*, p. 34.

medal (No. 32) commemorating a public banquet doubtless refers to the feast given to the chief citizens in front of the Palazzo di Venezia at the end of the games, and may indeed have been distributed among the guests.¹⁸ Platina seems to date this banquet to 1468, after the pacification of Italy, and not to the first Carnival after Paul's accession; and he would seem to be right, since on the obverse of the little medal Paul takes the title of "Founder of the Peace of Italy." But the feast, at any rate, became annual.¹⁹

The "Pabulum Salutis" (No. 16) is one of the most interesting of the reverses in this series. Bonanni²⁰ makes the very interesting suggestion that the sheep which are seeking the sources of Divine salvation are the Maronites of Mount Lebanon, who in 1469 sent to consult the Pope on certain mysteries of the Christian faith. The whole type is clearly derived from some original of early Christian date, possibly from a relief such as is found on Ravennate sarcophagi.^{20a} Girolamo Gualdo, whose account of medals supposed to have been made by Bartolommeo Bellano for the Pope we shall discuss later, has a curious note on this piece, which he refers to the occasion when Paul "edificò il Presepio in Santa Maria Maggiore, dove si vede la Beatissima Vergine con il Puttino fra animali e pastori. *Pabulum Salutis* è il suo motto." He has apparently altogether misinterpreted the design, unless he is referring to another piece which is now lost.

¹⁸ The *nummi argentei*, on the other hand, which Paul scattered among the crowd at these feasts (see Canensius, *op. cit.*, p. 51), were probably not medals, but coins.

¹⁹ Canensius, *loc. cit.*

²⁰ Vol. i p. 74.

^{20a} See Dütschke, *Ravennatische Studien*, Leipzig, 1909.

Of Jacopo Gottifredo, called Jacopo del Zoccolo, who is mentioned on Nos. 17 and 20, we have already spoken. He was Paul's chief physician, and a great favourite, being made Chancellor of the City in 1469. His house, on the north side of the Piazza di Pasquino, was purchased in 1691 by the Archconfraternity of the Agonizzanti, for their church.²¹

The Public Consistory mentioned on No. 14 may very well be, as Bonanni urges,²² that of December, 1466, in which sentence was pronounced against George Podiebrad, the heretic King of Bohemia, or the Consistory of Holy Week, 1467, when the sentence was confirmed. This sitting seems to have been one of peculiar solemnity, to judge by the descriptions which have come down to us. Bonanni notes that the Last Judgment²³ represented on the reverse is appropriate to the occasion. It is especially recorded that representatives of the orders and doctors of canon law were summoned to this Consistory, and their opinion was taken.

On the other hand, the various medals Nos. 18, 23, 24, which, sharing a common reverse type, are inscribed SACER SENATVS, CONSISTORIVM PVBLICVM, and AVDIENTIA PVBLICA PONT·MAX·, can hardly have any particular significance. The type, it will be noticed, is similar to that of the Pope's bulla (see No. 35), but here the suppliants seem to be adults. No. 23, with CONSISTORIVM PVBLICVM, would at first sight seem to have been the earliest version; No. 18, with SACER SENATVS, the latest

²¹ See F. Cancellieri, *Il Mercato*, &c. (Rome, 1811), p. 99, note 2; C. B. Piazza, *Eusevologio Romano* (1698), p. 410. I owe these references to Miss Edith Hewett. Cf. also above, p. 354.

²² Vol. i pp. 80 f.

²³ Strictly speaking, the actual Judgment is not represented.

(if, indeed, that inscription is at all contemporary). The shield which is seen in No. 23 has been removed in the two others. And yet, of the three inscriptions, AVDIENTIA PVBLICA is the only one that seems really appropriate to the type.

Bonanni (p. 82) very plausibly suggests that the type of the bulla (No. 35) commemorates the benevolence of Paul II towards the children of the exiled despot of Morea, Thomas Palaeologus. Thomas died in Rome on May 12, 1465, and Paul recognized his son Andrew as titular despot of Morea.²⁴ Bonanni recognizes in the suppliant figures the two sons and a daughter of Thomas, with a tutor. The three most prominent figures certainly seem to be youthful.²⁵

The title of "Founder of the Peace of Italy," which the Pope claims on many of his medals, obviously refers to his attempts towards the pacification of Italy. Thus, upon the death of Francesco Sforza in 1466, he summoned the cardinals, and after consultation wrote letters to all the princes and states of Italy, exhorting them to maintain peace; and again in April, 1468, it was by his mediation that Colleone was induced to consent to a peace including all the Italian states. In 1470 he made yet another attempt to unite all Christian princes, especially the Italians, against the Turks.²⁶

The inner portion of the Jubilee medal (No. 33) is a reproduction of a carnelian intaglio at Florence, the

²⁴ G. F. Hertzberg, *Gesch. Griechenlands seit d. Absterben des ant. Lebens*, ii p. 781, note 1.

²⁵ It has also been suggested (Marino Marini, quoted by Mas Latrie, *Trésor de Chronologie*, 1139) that this bulla type represents the Pope receiving in consistory the envoys of Italian princes who were charged to come to an agreement with the Holy See in the matter of the anti-Turkish alliance.

²⁶ Ciacconius, ii col. 1076.

dimensions of which are 58 x 34 mm. The representation of the tiara here is quite different from what is found on the large medal No. 34, the chief element in the decoration being palmettes instead of fleurs-de-lis (Paul's tiaras were famous for the richness of the jewels with which they were adorned).²⁷ On the other hand, the morse, with its large central stone, may be the same as the one worn by the Pope in the bust variously attributed to Bellano, Mino da Fiesole, and Giovanni di Sicilia (Iohannes Iurdi Catalanus),²⁸ although naturally enough in the medal the morse is rather summarily represented. The mention of the publication of the Jubilee fixes the date of the intaglio from which the medal was made to 1470.²⁹

Three or four medallists are associated by documents or tradition with Paul II. We may naturally consider first Aristotile Fioravanti of Bologna, whose signature appears on the "Letitia Scholastica" medal. This artist was primarily an engineer and architect, and is famous for having anticipated modern engineering science by bodily moving buildings, such as the Torre della Magione at Bologna. It is worth noticing that while at Rome, in 1473, Fioravanti was accused by his enemies of issuing false coins.³⁰ Whether true or not,

²⁷ See Canensins, pp. 43 f., and the passages quoted by Bonanni, i p. 71.

²⁸ See Zippel, Appendix to his edition of the *Vite di Paolo II.* Payments to this artist for what appears to be a bust are recorded in 1469. The bust is finely illustrated by Dengel, &c., *Der Palazzo di Venezia*, Pl. xxv, xxvi.

²⁹ The printed copy of the bull proclaiming the Jubilee is dated "MCCCCLXXIII. decimo" (for 1470, tertio decimo) "Kal. Maii pontificatus nostri Anno VI," i.e. April 19, 1470.

³⁰ Gualandi, in *Atti e Mem. della R. Dep. di Storia Patria per le Prov. di Romagna*, ix (1870), p. 64.

this charge squares with the supposition that he was employed at the mint. When he went to Russia, in 1475, he apparently became engraver to the mint of Moscow, and coins exist bearing his name, ORISTOTELES or ORRISTOTELES, in full on the reverse.³¹ That they are of no artistic interest whatever is doubtless chiefly due to the traditions of the Russian coinage.

If Fioravanti made the reverse "Letitia Scholastica," it is very likely that he also made the reverse "Hilaritas Publica," which is akin to it in style. But there is nothing to show that he made the obverse which is associated with these and two or three other reverses. It is hardly necessary to say that the unsatisfactory practice of commissioning different men to design the obverse and the reverse of the same piece has prevailed at many mints at many periods in the history of coinage.

Another artist, traditionally supposed to have worked for Paul, both as sculptor and as medallist, is Bartolommeo Bellano of Padua. The tradition goes back to Vasari.³² Armand cautiously declined to distinguish the work of this artist among the numerous unsigned medals of the Pope. Whether it is to be distinguished depends upon the amount of credence which is to be given to a certain statement by Girolamo Gualdo of Vicenza.³³ This person wrote, in the middle of the seventeenth

³¹ C. Malagola, in *Atti e Mem. delle RR. Dep. di Storia Patria per le Prov. dell' Emilia*, N. S., i (1877), pp. 217 f.

³² *Vita di Vellano da Padova*. "Fece il medesimo molte medaglie, delle quali ancora si veggiono alcune, e particolarmente quella di quel Papa, e quelle d'Antonio Rosello Aretino, e di Batista Platina ambi di quello segretarj." This passage does not occur in the first edition of 1550.

³³ For what follows in the text, see B. Morsolin, in *Riv. Ital.*, 1890, pp. 550 ff., and *Nuovo Archivio Veneto*, viii. (1894), pp. 198 ff.

century, a description of the Museo Gualdo, which had been founded at Vicenza by his ancestor of the same name, who died in 1566. According to Girolamo the younger, this museum contained no less than five medals of Paul II by Bellano; they are sufficiently described by him to enable us to identify them. How much, however, is the statement of Gualdo worth, dating as it does nearly 200 years later than the medals themselves? Even supposing that his statement embodies the attribution accepted by the founder of the museum, that only brings us one century nearer to the time of Bellano. The fact that an attribution to Bellano of medals of Paul II first appears in print in the second edition of Vasari's *Lives*, published in 1568, just after the death of Gualdo the elder, can hardly be regarded as a confirmation of the tradition. This is a question not easily to be solved, but it is obvious that Gualdo's statement, taken as it stands, cannot count as first-class evidence.³⁴

On the other hand, there is a general consensus of opinion that of the three medals mentioned by Vasari as having been made by Bellano, of Paul II, Antonio Roselli, and Bartolommeo (often, as by Vasari himself, wrongly called Baptista) Platina, the second at any rate is to be identified. Roselli spent his old age in Padua, and his monument was carved by Bellano. The medal represents him at an advanced age; its style is quite unlike that of any other known medal, and its uncompromising realism and the ungainliness of its forms are certainly quite in keeping with what we know of

³⁴ The latest writer on Bellano (A. Moschetti, in Thieme and Becker's *Lexicon*, iii p. 234) seems to me to exaggerate the importance of Gualdo's evidence in this connexion.

Bellano's style in sculpture. This is the piece (Fig. 3):

Obv.—ANTONIVS DE ROYZELLIS MONARCHASAPIENTIE Bust to l., wearing flat cap with soft crown, brim turned up close all round, and gown; in the field, on the r., the figures 91



FIG. 3.—Medal of Antonio Roselli, by Bartolommeo Bellano.

Rev.—CELVITVM BENIVOLENTIA Semi-nude male figure (Roselli) with loose drapery, seated to l. on a seat of which the legs end in dragons' heads, his r. hand raised in exhortation; the whole figure supported by an architectural bracket; in the field, C V

British Museum, bronze, 46.5 mm. Cp. Friedländer, *Ital. Schaumünzen*, p. 82; *Arm.*, i 47. 3; Fabriczy (Eng. trans.), pp. 61 f. The figures 91 cannot indicate the sitter's age, if it is true that he was only 85 when he died on December 10, 1466.³⁵

As Friedländer has already remarked, this piece is absolutely different in style from any of the known medals of Paul II. They cannot be by the same hand. Paul's medals show not a single one of the peculiarities

³⁵ Semrau, *Donatello's Kanzeln*, p. 151.

of conception, modelling, or lettering by which the medal of Roselli is so strongly characterized; and as some of these peculiarities are precisely those which we should expect to find in a medal by Bellano, there is a very strong presumption that Bellano did not, so far as we know, work as a medallist for the Pope.

Cristoforo of Mantua, generally known as Cristoforo Geremia, is in different case. On the death of Cardinal Scarampi on March 22, 1465, Cristoforo, who had been in his service, entered the employment of the Pope. Payments were made to him in 1469 for medals for the foundations of the Palazzo di Venezia, and also for making artillery for the defences of the "arces S. Ro. Eccl."³⁶

Raphael Maffei of Volterra, in his *Anthropologia*, also tells us³⁷ that Cristoforo of Mantua made a medal of Pope Paul II. On the strength of this statement it has been suggested³⁸ that Cristoforo is responsible for the portrait of Pier Barbò as Cardinal (Nos. 1, 2). Cristoforo seems to have been in Rome at the time, but to have left for his native Mantua in 1456; from 1461 to 1465 he was back in Rome with Cardinal Scarampi. From 1465 onwards he was in the Pope's service.

The attribution of these early medals to Cristoforo

³⁶ The entries referring to the medals have been quoted above (note 5). I repeat my thanks to Signor Zippel for communicating them to me. The medallist was dead by February 22, 1476, on which day certain credits were assigned to his heirs.

³⁷ The passage is most conveniently accessible in Müntz, *Les Arts à la Cour des Papes*, ii p. 306, or Friedländer, *Ital. Schatzkammern*, p. 121.

³⁸ See Fabriczy, *Ital. Medals* (Eng. trans.), pp. 156, 157.

requires to be supported by the evidence of style; but it is difficult to find points of analogy between them and the authenticated works of the artist, his medals, namely, of Alfonso V of Aragon and of the Emperor Augustus. I see no resemblance in the modelling of the busts; and in lettering and arrangement of the legend there is a remarkable difference. The Barbò medals are distinguished by a neat, well-spaced inscription, with plain but well-proportioned letters, and with rather wide intervals between the words. The medals signed by Cristoforo, on the other hand, and also the



FIG. 4.—Medal of Ludovico Scarampi, by Cristoforo Geremia.

medal of Cardinal Scarampi which Fabriczy rightly attributes to him (Fig. 4),³⁹ show a tendency to crowd the inscription, running the letters into each other, and leaving no space between the words; and the letters themselves are not plain, but have strong serifs. Cristoforo also uses a border of dots, which is not found on the Barbò medals. Of course, the differences might be due to a modification in the artist's style, but more

³⁹ I have to thank Mr. H. P. Mitchell for kindly obtaining for me a cast of the fine specimen in the Victoria and Albert Museum, here illustrated.

evidence seems to be required before the proposed attribution can be accepted.

I have said that Fabriczy's attribution of the medal of Scarampi to Cristoforo seems to be right. Among the medals of Paul II those which it most resembles are to be found in the group measuring from 40 to 38 mm. (Nos. 15-26). The resemblance in the lettering is often very close, as in the "Audientia Publica" and Gottifredo medals; but there is, moreover, a family likeness in the treatment of the groups of figures on the reverse, as in the "Audientia Publica" and "Pabulum Salutis" medals. The only date which is mentioned on any of these pieces is 1470, which is, at any rate, not inconsistent with the fact that the only payments which we know to have been made to Cristoforo for medals are recorded in 1469. It seems reasonable, therefore, to attribute to Cristoforo the original model for the obverses of this group (as we have seen, there is essentially only one obverse model for all of them), and also a certain number of the reverses, such as those of Nos. 15-17, 20-24. The others are probably *rifacimenti* by less skilled hands. The fine model of the various oval pieces, Nos. 27-31, may also be his, as well as the little medal commemorating the public banquet (No. 32), which, if Platina is right, is of or after 1468.

Signor Zippel has suggested that some of the medals of Paul II attributed to Bellano may be from the hand of Andrea di Niccolò da Viterbo, the Pope's favourite jeweller. He publishes documents relating to him from September 22, 1464; on December 12 of that year he is mentioned with Milianus Permathei de Orsinis de Fulgineo as Master of the Mint. On August 5, 1468, Pierpaolo della Zecca is substituted

for Andrea.⁴⁰ It might therefore seem possible to assume that he made the series of smaller medals, mostly of 1465 (Nos. 4-13), except in so far as we have seen reason to attribute the reverses "Hilaritas Publica" and "Letitia Scholastica" to Aristotile Fioravanti. Nevertheless, they show no resemblance in lettering to the great struck medal of the Consistory (No. 14), which would certainly be made at the mint under the supervision of the master for the time being. It seems preferable, therefore, assuming that the Consistory is that of 1466 or 1467, to attribute this piece, rather than the others, to Andrea da Viterbo.

But, if this struck piece is by Andrea, then we may, with all but certainty, say that two other medals were also produced under his supervision, if not by his own hand. First there is the great chased medal of 1464 (Fig. 2). This is, as already remarked, handled in a jeweller's style; that is to say, the chasing, not the original modelling, is of paramount importance. That fact is sufficient to account for the superficial difference in style between it and other medals produced in a different way, like No. 14, as well as for the doubt which has unreasonably been cast upon its authenticity. Between this large piece and the struck medal we may notice a most remarkable resemblance in lettering: the gradual broadening of the legs of the letters, and the hollowing out of their extremities, are most characteristic and unusual.⁴¹ Secondly, these peculiarities occur on only one other medal of Paul II, and that is the bulla-

⁴⁰ For other information about him, see Müntz, *op. cit.*, II pp. 111, 115.

⁴¹ Lettering closely approaching it is found on Papal bullae of Paul II's predecessors.

medal, No. 35, which is further connected with the large chased medal of 1464 by the use of cable-circles, a mark of jeweller's work. We may then have little hesitation in assigning all three pieces, Nos. 14, 34, and 35, to the same hand; and to whom more naturally than to that jeweller and goldsmith who was at the time in charge of the mint?

Another jeweller whom Signor Zippel shows to be concerned with medals is one Angelo, possibly Angelo Paci dall' Aquila; but all that we know is that in 1470 he was paid a certain sum for two "medaliae" of gold and certain others of silver. We are not told that he made these pieces, and as we know that Paul was a collector, they may have been merely pieces, ancient or other, acquired through him for the Papal collection.

We have thus arrived at a rough and (be it understood) tentative classification of all the ordinary medallie series of Paul II. The medal made from the carnelian intaglio stands by itself. Artistically regarded, the medals have no very great value, although a considerable power of characterization is shown in the portraits which we have assigned to Cristoforo Geremia. To the numismatist the chief interest lies in the extreme economy of models revealed by a comparison of the varieties. Just as in modern times we continue to use the same model for coinage for many years, so the same bust was used over and over again; but a superficial appearance of novelty was given to it by altering the decoration of the cope, or one or two words of the inscription. The circular inscriptions were not worked on the same piece as the bust or other design, but on a detachable circular strip, so that they could be removed and attached as a whole to different types, or could have certain words cut out

and replaced by others. This was not a new practice; it was already employed by Amadeo Milano in his medals of Borso d'Este,⁴² and doubtless by other artists who were jewellers before they were medallists. It obviously tends to destroy the unity which ought to exist in a medal between type and legend, and one cannot credit that any of the greater artists of the fifteenth century would be likely to indulge in it.

G. F. HILL.

⁴² *Burlington Magazine*, January, 1900, p. 216.

XVIII.

MR. PARSONS' ARRANGEMENT OF THE COIN-TYPES OF AETHELRED II.

(*Num. Chron.*, 1910, pp. 251 ff.)

IN this paper by Mr. Parsons it is the object of the author to prove: (A) the Sequence, (B) the Dates and Meanings, of the Coin-Types of Aethelred II.

A. The sequence which he wishes to prove is set out clearly on pp. 252, 253. Eliminating from the main types those numbered in the British Museum Catalogue, iv., v., vi. (as mule pieces—Hildebrand, 1881, pp. 27, 28), vii. (as a variety of Type viii.—*op. cit.*, p. 28), ix., ix. *a* (as Danish—*op. cit.*, p. 31), x. (as a medal), and xi. (as a sort of mule between a medal and a coin), he is left with five main types: B. M. Cat., i., ii. *a* (ii. being a variety of this), iii. *a* (iii. being again the variety), iv. *a* and viii., which correspond with Hildebrand's Types A, B (which includes, I suppose, B 1, B 2, B 3), C, D, E; and his intention is to show that his own arrangement of these types, viz. B, C, E, D, A, is a likely one, or at least more likely than that of Hildebrand, for which purpose he compares the two arrangements, A-B-C-D-E and B-C-E-D-A, most carefully, and sets both out in tables to show how far his arguments favour one or the other. Nobody, however, has ever yet shown—certainly Hildebrand, at least,

never has—any reason for adopting this sequence A-B-C-D-E, with A ceasing at the commencement of B, which the author quotes throughout as Hildebrand's arrangement. On p. 29 of the 1881 edition, Hildebrand repeats the statement he made in the 1846 edition (p. 23), that "without doubt the same type [Type A] was used continuously, together with the later types, during the whole of King Aethelred's reign," in proof of which he cites the large variety in size, weight, workmanship, and inscriptions seen on coins of this type. Now, considering the large tributes paid to the Danes in the years 991 (10,000 pounds of silver), 994 (16,000 pounds), 1007 (36,000 pounds), 1011-1012 (48,000 pounds), and the speed with which money for these tributes had to be raised, it is no unreasonable thing to suppose that the dies of this first type, the reverse of which is the simplest and easiest to engrave, were reproduced at such periods of necessity; and though Hildebrand does not state clearly whether he thinks the type continued incessantly or was recalled into use at these urgent periods, the former view is so unnatural, and the latter so suitable both to the history of the period and to Hildebrand's notes on the coins, that I think he must have had the latter view in mind. However that may be, Mr. Parsons' negligence of this important point invalidates his arguments from beginning to end, because, in consideration of the recurrence of Type A throughout the reign, these arguments support Hildebrand's arrangement as well as, and in most cases better than, his own. This point, among others, will be shown by a brief examination of Mr. Parsons' arguments, of which the most important is—

- (1) The transition from M^o to ON in the reverse

inscriptions (pp. 263-267). To corroborate this he uses the arguments of—

(2) Finds (pp. 267-270).

(3) Mule coins and types of the preceding and succeeding reigns (pp. 270, 271).

(4) Moneyers (pp. 272-275).

(5) Mints (pp. 273-274, 276-277).

(1) This main argument is certainly an important one. The author says, 'The writer is not aware that it has previously been noticed that the transition from M^o . . . to ON . . . between the moneyers' and mint names, has a very important bearing on the question of the order of the types.' But why is he "not aware"? He quotes Hildebrand constantly throughout his paper, using the 1846 edition to compile his table of finds on p. 268. On p. 23 of this first edition, Hildebrand points out the importance of this transition from M^o to ON, as showing that Type A continues throughout the reign, some coins of this type having M^o, and the others, 'presumably the later ones,' the varieties MO, M^oO, M^oON, &c., and finally O, ON: in his notes on other types also Hildebrand is careful to point out which form of abbreviation finds use. Now, does this argument support Mr. Parsons' arrangement as opposed to Hildebrand's? We are given on p. 264 a table which seems to fit the author's arrangement very nicely: he has taken it from the catalogue of coins in the Stockholm Collection, and says that the coins described in the British Museum Catalogue point in the same direction. But a table compiled from the British Museum coins (including those acquired since the publication of the catalogue) gives the following percentages¹:—

¹ The regular use of M^oO in the preceding reign necessitates this

	M ^o O.	Intermediate.	ON.
1 (Hild. B) . . .	96.7	3.3	—
2 (Hild. C) . . .	100	—	—
3 (Hild. E) . . .	3.75	96.25	—
4 (Hild. D) . . .	0.75	98.5	0.75
5 (Hild. A) . . .	21.35	29.3	49.45

This table shows a great point of difference, in that here M^oO is seen to be almost completely obsolete in Types 3 (E) and 4 (D). This disappearance of the older inscription in the third and fourth types leaves us in need of an explanation, if we accept Mr. Parsons' arrangement, why it reappears in the fifth type; with Hildebrand's arrangement, on the contrary, it is what we should expect, the M^oO coins being struck during the original issue of Type A, those with the other readings during its later issues. With regard to the order of Types 3 (E) and 4 (D), neither Mr. Parsons' table nor the one here printed gives any help, as these two types do not in either table differ in any percentage to a large enough extent (3 per cent. is the maximum) to throw any weight on either side.

The author mentions (pp. 265-267), in connexion with this matter, the local conservatism of some mints, especially in the North, arguing from this that "it is beyond question that no one centre was wholly responsible for making the dies." The argument, however, is faulty in ascribing the local peculiarities to the engraver of the die instead of to the moneyer who was sent to

abbreviation being placed alone in the first column; in the second must come all the varieties MO, M^oO, M' O, MΩO, &c.; and in the third the forms O, ON, which are regularly used in the reign of Cnut. (See Hildebrand, 1846, pp. 23, 24.)

London to have his dies engraved,² and doubtless controlled, or at least influenced, the form of the inscription engraved on his die.

(2) The evidence of "Finds" is treated, very rightly, as an important argument. Again we are given a table, this time with a cross or dash to show if a particular type was represented in each find or not; but how does it help in any way to know that a type occurred in a particular find, unless we also know, at least approximately, the number of coins of each type that occurred? Take, for example, *Find* No. 12: suppose the coins to have been thus distributed—

Type (1) 6, Type (2) 10, Type (3) 60, Type (4) 80,
Type (5) 100,

it would then be an argument that this were a correct arrangement of the types; if, however, the figures were—

Type (1) 100, Type (2) 80, Type (3) 60, Type (4) 10,
Type (5) 6,

the reverse order of types would be a more likely arrangement. So with all the finds: it is useless to know that certain types occur without also knowing in what proportion they occur.

The comments on the finds are equally untrustworthy as evidence of the sequence of types.

Find 4 seems likely to have been buried somewhere about 995 (*i.e.* soon after Skötkonung became King, as only two of his coins were found), therefore Type C, the

² Cf. Domesday, folio 172: "Quando moneta vertebatur, quisque monetarius dabat xx solidos ad Lundoniam pro cuneis monetae accipiendis;" and folio 179: "Quando moneta renovatur, dabat quisque eorum xviii. solidos pro cuneis recipiendis, et ex eo die quo redibant usque ad unum mensem dabat quisque eorum regi xx solidos."

commonest in the find, was probably then in circulation; but as for the other coins of Aethelred, which are not described, being "very possibly of Type 1 (Hild. B)," they are just as likely to have been of Type 5 (Hild. A), or of both Types A and B.

Suppose *Find* 5 to have been deposited in 996 (which will allow for the presence of a coin of Basil II and one of Skötkonung), then it could not possibly have included all the types of Aethelred, and Types 3 (E) and 4 (D) must have been struck after that date; this would agree with Hildebrand's arrangement, the coins of Type A belonging to its first issue.

In *Find* 6 one can only assume that the coins of Aethelred belong to Type 5 by first assuming that Type 5 is the last type of his reign; this assumption, then, as an argument in evidence of the sequence of types, is an argument in a circle.

In *Find* 10, Hildebrand (1846, p. xlv.)—from which source the author takes his account of the finds—says that Duke Bernard, of whom a coin occurs, is probably the first duke of that name;³ so Mr. Parsons has no authority for saying that this coin might have been struck by either the first or second Duke Bernard, and then arguing as if it were the second. This is important, because this coin is the latest in the find, and the find was therefore buried before 1011, certainly not later, and the absence of Types 3 (E) and 4 (D) is therefore not altogether accidental, but due to one or both of them not being yet issued. As *Find* 5, this find also is strongly

³ Had Hildebrand's attribution of this coin been incorrect, he would doubtless have made a statement to that effect in the second edition of 1881, seeing that the publication of Dannenberg's *Deutsche Münzen* in 1876 left no doubt in distinguishing the coins of these two Dukes.

in favour of Hildebrand's arrangement, the Type A coins belonging to this type's first issue at the beginning of the reign.

Similarly the absence of Type 3 (E) from *Finds* 8 and 11 cannot be called accidental, but militates strongly in favour of putting Type 3 (E) after Type 4 (D) which does occur in this hoard, as Hildebrand puts it. The other finds which, our author says, "need no comment," are of course as strongly in favour of Hildebrand's arrangement as his own, in view of the important fact that he makes Type A occur not only at the beginning, but also throughout the reign.

(3) The evidence of mule coins is, our author says, not conclusive for this reign, as many different obverses occur with the same reverse [*e.g.* obverses of 1 (B 1),⁴ 2 (C), 3 (E), 4 (D), all occur with the reverse of 5 (A)]. This is surely in itself as strong an argument as could be found in favour of Hildebrand's arrangement, the recurrence of Type 5 (A) at intervals of necessity throughout the reign being an excellent—I think the only possible—explanation of the strange phenomenon that the dies of this type (for it is this type only that is promiscuously muled in this way) are used in combination with all the other types of this reign.

The argument connecting the "Hand" type (Parsons, 1; Hild. B) with the same type of Edward the Martyr (p. 270), is very slender. A unique coin represents this type in the earlier reign; but the ordinary type of Edward the Martyr's reign does connect with Type 5 (A) of Aethelred's reign—a point strongly in favour of Hildebrand; the further connexion of this Type 5 (A) with the

⁴ See Hildebrand, 1881, p. 25, Type A, var. a

succeeding reign supports Hildebrand as strongly as Mr. Parsons—a fact which the latter naturally fails to see, as he was not aware of Hildebrand's true explanation of Type A.

Mr. Parsons points out that Types 3, 4, 5 (E, D, A) recur on coins of Cnut; that of 3 (E) is dismissed as "a rough copy," though no explanation is given of a rough copy being made of a type that had been so long out of circulation. The dies of Types 4 (D) and 5 (A) are said to be pressed into service for the payment of 1018, and this is cited as valuable corroboration of the correct position of Type 5! The only possible deduction would be that these two types were both in use at the end of Aethelred's reign, certainly not that 5 was later than 4.

(4) Next follows the evidence of moneyers' names with another of these misleading tables: misleading in the first place because in it, as in the others, Hildebrand is again treated as having arranged the types in order of A-B-C-D-E with A ceasing at the commencement of B; and here, as throughout the paper, the whole effect of the argument would be completely changed were Hildebrand correctly quoted as making Type A continue throughout the reign (for example, the five names occurring in Cnut's first type, which are said to be in favour of the author's arrangement as opposed to Hildebrand's, viz. Eadric, Godman, Leofred, Lifinc and Wulfwine, all fit Hildebrand's arrangement equally well); misleading also because to take but one type before and one after the reign under consideration makes no allowance for the many moneyers' names that are likely to have occurred on a type of which but few specimens have survived (of Edward the Martyr's reign, for example, there are only six

London coins in Hildebrand's catalogue of 1881, and only one in the British Museum), coins of these moneyers of that particular type or reign being now lost. Many of the moneyers' names in this list which are not known on coins of this particular type of Cnut's reign, appear on other of his types: Aelfgar, Aelfget, Aelfric, and Aelfstan are instances.

(5) On the evidence of mints it is hardly necessary to repeat what I have just said under the evidence of moneyers' names with regard to the misrepresentation of Hildebrand, and the fallacy of arguing from one preceding and one succeeding type. My remarks on both these points apply to this case also.

With regard to the "Moneta" coins, it is difficult to place a York coin with the "Moneta" legend on the reverse so late as the last few years of the reign. Admitting the conservative tendency of York, it is nevertheless hard to account for the appearance of this abbreviation in the first and last types, when it is absent in all the three intermediate types. Hildebrand's arrangement affords less difficulty, Bedford coins being so rare (there are nine of Type A in Hildebrand 1881, and none in the British Museum) that the absence of "Moneta" coins of Type A struck at Bedford proves less than the existence of one of this type struck at York.

B. The Times of Issue, and Meaning of the Types are, on the author's admission, speculative. As the correctness of the dates must depend absolutely on the correctness of the sequence of types, little more need be said on this subject. Further, as each type after the first is dated roughly by the tribute-payments, the author's chronology is not convincing, when he argues from the commonness of each type that each type in succession, after the first,

was in circulation during the large payments of 991, 994, 1007, 1011-12.

The author has assumed the "Hand" type to have been started by Edward the Martyr, and continued, as his first type, by Aethelred; he now attributes to Dunstan responsibility for the design. But if Edward the Martyr took the type in honour of Dunstan, how comes it that Aethelred continues so to honour an Archbishop who retired from politics in disgust at the murder which brought him to the throne?

Again, if this type refers to the millennium, why is it adopted twenty-two years before the millennium is expected?

"Crux," the author would have us believe, is used on the next type in the sense of "trouble, misery, &c." He is surely reading a modern sense into a mediaeval symbol; such phrases as "crucem tollere," in the Christian sense of the cheerful bearing of affliction, occur of course in the earliest times, but there seems no authority for "crux" being used absolutely to mean "trouble" or "adversity:" the English word "cross" is not found in that sense before the year 1573. And why go so far afield? If the word CRVX is placed in the angles of a cross, what should it mean but "cross"?

Of the treatment of the Agnus Dei pieces as medals little need be said. As Mr. Lawrence has pointed out, the last figure on the author's second plate—a cut half-penny with the Agnus Dei obverse—is proof positive that they are coins; no further proof is necessary; if it were, the following points have already been mentioned:

* This usage is very common on mediaeval European coins. See Engel et Serrure, *Num. du Moyen Age*, pp. 585, 670, 868, 1222, 1262.

(1) the adjustment of their weight to the standard coin-weight; (2) their issue from various mints, six or seven in number; (3) the appearance of the moneyer's name and mint upon them (a safeguard against the issue of pieces of impure metal or false weight); (4) the use of an obverse die in conjunction with an undoubted coin-die; (5) the hopeless anachronism of the author's theory.

GEORGE C. BROOKE.

XIX.

MR. G. C. BROOKE ON "THE COIN-TYPES OF
ÆTHELRED II." A REPLY.

I DESIRE to preface a reply to Mr. Brooke by saying that the points of my paper were, generally speaking, dealt with on purely independent lines—*i.e.* a conclusion as to the sequence of the types was arrived at without reference to the previous numismatic writings on the period.

Perhaps the main point to be considered is Hildebrand's theory that his Type A was used continuously, together with the later types, during the whole of the reign. It is at once admitted, with regret, that the significance of the words conveying this statement was, owing to the absence of a translation of Hildebrand, not appreciated. This is a regrettable omission on my part, and I crave leave to deal with it here briefly. The theory seems to me to be untenable on the following grounds: 1. There is no coin which can *unquestionably* be considered a mule of Types A and B. 2. Type A is not found in a good many of the hoards: it ought never to be absent if continued throughout the reign. 3. Type A is, for all practical purposes, the only one on which the form ON occurs. 4. The simple device of a cross only equally applies to Hild. D, and the variations in inscription and workmanship are very considerable on other types. 5. If Type A was a kind of universal tribute-money, it would

be reasonable to suppose that the majority of the barbarous copies of Aethelred's coins would be of that type, but Hild. D takes the first place in that respect. 6. The almost entire absence of the early and intermediate forms of MO on the very numerous coins of Type A of Winchester. If Type A was continued throughout the reign, specimens with all the variations of inscription should be known of this important mint.

I have also to regret overlooking the fact that Hildebrand referred, to some extent, to the transition from MO to ON. This transition was noticed by me quite independently, and, as a result, it has been applied somewhat differently. Mr. Brooke, following Hildebrand's method of application, has therefore compiled his table on quite different principles, and his comparison is consequently nugatory. My basis of compilation, the only one admissible to my idea, was all coins with MO—whether the two letters were divided by a dash, dot, Ω , comma, or nothing, which are simply contraction marks—at one end, all coins with ON at the other end, and combinations of these two in the centre. In the table on p. 264 MO is intended to cover all coins with MO, whatever the mark of contraction. In a test of this kind it is obviously necessary to take a large number of coins, and to eliminate all duplicates. As indicated in my paper, these conditions are amply fulfilled by the 4000 to 5000 coins in the Stockholm Catalogue (1881), not one of which is duplicated. On the other hand, there are only 408 coins described in the British Museum Catalogue, some being in duplicate.

On the question of where the dies were cut, Mr. Brooke, in saying "the argument is faulty," presupposes the establishment of one die-sinking centre only at London

in Saxon times, and quotes two passages from "Domesday" in support; but surely this is a palpable anachronism. The question of where the dies were cut in Norman times, which is not in dispute, is very different to that of where they were made nearly 100 years before, and, what is more important, *under an entirely different administration.*

In regard to Mr. Brooke's remarks on the "finds," I originally acknowledged that the table was imperfect. In the majority of cases no record of the number of coins in each type was published, and the whole matter had to be looked at from a broader standpoint, as has had to be done before in connexion with other reigns. At least the table is useful in showing how improbable it is that Type A was continued throughout the reign. Otherwise it would be in all, or nearly all, the finds.

In his remarks on Find 4, Mr. Brooke omits to mention my comparison of it with Find 3, which, in itself, justifies the supposition that the unrecorded type was Hildebrand B.

In regard to Mr. Brooke's remarks on Find 5, it can equally be supposed that the coins could have been deposited any time *after* 996.

Referring to Find 10, as Hildebrand was uncertain to which Bernard the coin of Saxony belonged, it might well have been of the second as of the first Duke of that name.

My critic says the "other finds" are as much in favour of Hildebrand's arrangement as my own, *having regard to Type A occurring throughout the reign.* If so, then why is Type A absent in a large number of the finds, especially those numbered 2, 3, and 8? It ought to be present in

every one if there is anything in Mr. Brooke's statement. I repeat, the evidence of the finds is strongly against placing Type A from the beginning to the end of the reign.

In regard to the mule coins, Aethelred's reign is not the only one in which mules occur made up of types which do not immediately succeed each other, although such anomaly is more pronounced in the period under discussion, for the reason given on p. 261. It is extremely doubtful whether Hildebrand A, var. a (Pl. VII. Fig. 6) is a mule of Types A and B. The size and general workmanship indicate that it is merely a variety of Type A with the bust turned the opposite way, as described on p. 260. The coin illustrated seems to show that the artist himself was uncertain which way to engrave the bust, and another specimen, also in my collection, indicates the same thing.

As regards the test of the moneyers' and mint names, attention is drawn to my remarks on p. 272 (first paragraph) and p. 273 (last paragraph). In these paragraphs it is indicated that no importance is attached to these tests. The fact that the tables are rendered to some degree ineffectual by the omission to show, in the sections relating to Hildebrand's arrangement, Type A as continuing throughout the reign, does not therefore affect the general argument. I quite agree that such tables would be more useful if extended to show more types of preceding and succeeding sovereigns, but a limit has to be fixed somewhere, and the tables are quite large enough as they are.

With regard to the *MONETA* coins, Mr. Brooke says, "It is difficult to place a York coin with the 'Moneta' legend on the reverse so late as the last few years of the

reign." But if York practically refused to have the legend, ON, at the end of the reign, as was the case, it might very well have refused to relinquish the old form "Moneta" at the same time.

Mr. Brooke says, "The author has assumed the 'Hand' type to have been started by Edward the Martyr, and continued, as his first type, by Aethelred" (p. 379). In this I am supported by the weighty opinion of the late Sir John Evans, and in other parts of my paper I brought forward reasonable arguments in support of the contention. In connexion with this issue I am credited with saying that "Edward the Martyr took the type in honour of Dunstan." My statement is that "there seems great probability that Dunstan . . . was responsible for the adoption of the design," and I followed this by giving reasons (p. 279). As regards the continuation of the type by Aethelred II, politics had, probably, nothing to do with the question, except so far as they forced Dunstan to devote more of his time to art, literature, and science. By his pre-eminence in these matters Dunstan, notwithstanding his political retirement, would be likely to have much to say regarding coin designs. If the political aspect is admitted at all, it is in favour of the adoption of something different to the widespread type bearing Edward's name, as the Government, headed by Aethelred's mother during her son's minority, bitterly antagonistic to the late king and his party, would be likely to adopt something different to what was, for all practical purposes, the only type of Edward's reign.

The question, "If this type (Hild. B) refers to the millennium, why is it adopted twenty-two years before the millennium is expected?" (p. 379) seems to me to be quite answerable. Compared with 1000 years 22 is a very short

time, and the popular belief, reflecting itself in the industry of the period, might reasonably be reflected also in the coinage.

On the question of the word "crux," my critic has again failed to substantiate his point. He will find that even in Roman times pain, affliction, trouble, and unprosperous affairs, were called "crosses" (see *Complete Concordance*, by Alexander Cruden, M.A.). The fact that the metonymic meaning of the word does not appear in "English" writings until 1573—and I presume my critic is referring to Turner on *Husbandry*—has no bearing on its use or not in the Latin tongue. My critic says, in effect, the word is to be interpreted simply as "cross," and asks, "Why go so far afield?" The obvious reply is, Why use the word at all, when the object itself is plainly depicted, unless it is intended to specially symbolize something? Beyond, apparently, a solitary and doubtful English coin of Harthacnut, the word does not appear on other Anglo-Saxon issues of coins, although some form of cross is almost universal, on many emissions so engraved as to leave plenty of space for the insertion of the word. Its presence on this one issue only must, therefore, be intended to refer to something more than the mere object, "cross."

On the question of the "Agnus Dei" cut mule, it should be stated that I have had no other belief than that it is a halfpenny. It is so described in my list of the mints of the "Agnus Dei" (p. 287), and it should have so appeared on the plate. Its existence can be explained, but this must be left over, together with other evidence in connexion with the medal theory, for a separate paper.

As regards my critic's points 2 and 3, the matter has already been explained (see pp. 287 and 289). As regards

point 1, there was no standard weight at this time. The coins of most if not all the types constantly vary from 16 grs. to 27 grs. A few go below 16 grs., and there are some above 30 grs. Point 4 has been dealt with above; and as regards 5, "the hopeless anachronism" has to be proved. There are certain pieces known of Saxon Britain and of the Continent which partake more of the character of medals than coins; and medallions, at least, are known of Roman times. It would perhaps have been better to call the "Agnus Dei" pieces a "commemorative issue," but I wished to convey the idea that they were not struck, primarily, as coins. It is very possible that some of them were afterwards used as such, as in the case of medalets of later times.

H. ALEXANDER PARSONS.

CHARLES I: THE TRIALS OF THE PYX, THE
MINT-MARKS AND THE MINT ACCOUNTS.

ONE of the most remarkable of the many unusual characteristics of this King's coinage was his steady adherence to the correct standards of the metals used at the Mint, and this at a time when an empty privy purse and political misfortunes must have offered the strongest of inducements to leave the straight path.

That Charles impressed his determination upon the officials is shown by the satisfactory results of the formal tests known as the trials of the pyx, which were continued, so far as the Tower was concerned, during the darkest period of the Civil War.

At the Public Record Office are to be found the contemporary papers and books concerning these trials, but before citing extracts from the national archives on this and the kindred subjects, it may not be out of place to say a few words on the history of the pyx and the method of procedure.

The proving of the coinage by assay and weighing was first regulated by an indenture of Edward III, and the custom has been followed at varying intervals from that time onward. It was the duty of those in charge of the Royal Mint to place, immediately after striking, a fixed proportion of each coinage in a chest, or pyx, kept at the Tower and duly safeguarded,

where it remained until the Crown directed a trial of the contents. In Harl. MSS. 6364, a Master of the Mint, writing *tempore* James I, lays down the proportion as one piece out of every 15 lbs. weight of gold, and two pieces out of every 30 lbs. weight of silver, which practice no doubt obtained during Charles's reign. A trial having been ordered, the next step was to produce the standards by which the fineness of the metals could be determined; these standard trial plates have been kept from time immemorial in a second chest, which was secured in the gloomy chamber known as the Chapel of the Pyx, in the cloisters of Westminster Abbey. Popular tradition points to this chamber as the place of trial, but there is direct evidence that, at all events from the nineteenth year of Henry VIII until 1640, the ceremony took place in the Star Chamber, at the old palace of Westminster, as will presently appear.¹

The judicial body known as the Court of Star Chamber was abolished by statute in 1640-41; it may be only a coincidence that the pyx verdicts of July, 1641, and subsequent years invariably denote the place of meeting as being "near," and not in, that Chamber. The contents of the respective chests, or pyxes, thus furnished the materials for the trial by fire and balance, which was conducted before a tribunal of Lords of the Council by a jury of practical goldsmiths, who by their verdict either relieved or condemned the Master of the Mint. In 1643 the Privy Councillors gave place to a joint Committee of both Houses, to which some of the Committee of Revenue were afterwards added.

¹ Harl. MSS. 698 says that in Elizabeth's reign the pyx was tried "in the middle chamber next the mint furnace in the Star Chamber."

I will now set out, as an example, a transcript of the original documents relating to one of Charles's trials of the pyx, premising that the Tower Mint only was subject to these tests; it would appear that the country mints, even before the outbreak of hostilities, never submitted their productions to the central authority, and therefore the purity of their standards is the more to be commended.

Warrant to summon a jury, 1631—

"These are to will and require you forthwith upon receipt hereof to somon and warne all and every the persons hereunder named, being citizens and goldsmithes of London returned by the Wardens of that Company to make tryall upon their othes of the pixe of moneyes coyned in the Tower of London, to appeare personallie on Thursday the xxxth daie of this instant June in the Star Chamber by viii of the clock in the morning before the Lords of his Ma^{ty} privy counsell for the performance of that service, as they and every of them will answere the contrary at their perills. And this shalbe your warrant in that behalf.

"From Durham House the xxiii of June 1631. The Coventrye.

"To Humfrey Leigh esq^r his Ma^{ty}'s sergeant at Armes attending the great seale.

" Thomas Sympson, Cheapside.	William Warde, Cheapside.
John Acton "	Edmond Rolf, St. Olave's
Gyles Allen, Fleete bridg.	Hart St.
Symon Owen, Noble St.	John Hill, Lombard St.
John Williams, Cheapside.	Frauncys Manyng, Cheapside.
John Hawes, "	Richard Tayler "
William Haynes, Lombard St.	William Gibbs, Foster Lane.
Symon Gibbon, Cheapside.	Alexander Jackson "
Robert Hooke "	Thomas Masters, lower ende
Robert Dodson, Lombard St.	of Milk St."

Next follows a report of the proceedings, and their result.

"The assaies and tryall of the Pixe monies in the Star chamber before the Right Honorable Lords of his Ma^{ty} most honorable privie councill the thirtith day of June Anno Dni 1631. S^r William Parkehurst Knight beeing wardein, S^r Robert Harley Knight of the Bath m^r and worker, and Richard Rogers esqr comptroller of his Ma^{ty} mynte.

"Goulde of the standard of 23 carrotts 3 graynes and a halfe taken out of the pixe, the privie marke being the Feathers, accordinge to the Indenture bearinge date the eight day of November in the second yeare of the raigne of our Sovereigne Lord Kinge Charles, weighinge viii^d. wt 2 graines q^{ter} and halfe, makeing in coyned moneys consistinge of three Angells the some of thirtie shillings, arisinge in the pounce weight to xliiii^{li} ix^s, is founde at the assaye one quarter of a grayne better than the Standard of his Ma^{ty} Treasury dated the xxth of August 1605.

"Goulde of the standard of 22 carrotts taken out of the same pixe, the privie marke beeing the Feathers, accordinge to the same indenture weighinge ix^{li} wt one ounce vi^d wt x graynes, makeing in coyned moneys consistinge of unites dooble crownes and Brittainne crownes the some of cccclxxiiii^{li} xv^s, arisinge in the pounce weight to xli^{li} ii^s viii^d ob, is founde at the assaie agreeable to the standard of his Ma^{ty} Treasurye (scant) dated the xixth of November 1604.

"Silver money taken out of the same pixe, the privie marke being the Feathers, accordinge to the same indenture weighinge xix^{li} wt iii^{oz} xiiii^d wt viii graynes, makeinge in coyned moneys consistinge of crownes, halfe crownes, shillinges, halfe shillinges, two pences, and pence, the some of sixtie pounces eight shillinges and eight pence, arisinge in the pounce weight to iii^{li} ii^s iii^d three farthinges, is founde at the assaie just agreeable to the Standard of his Ma^{ty} Treasury dated the xixth of November 1604."

"The Veredict.

"Wee finde by the assayes and tryalls of the severall moneys above mencōned that they are agreeable to the said

standards in his Ma^{ty} Treasury and covenants in the said indenture, and in weight Tale and allay within the remedies ordayned in such manner and forme as is above expressed and declared, accordinge to our best knowledge and discretions."

Then follow the signatures of 17 jurors, Wm. Warde being marked "non jurat."

On this occasion eleven Privy Councillors were present, and a sum of £4 10s. 2½*d.* is allowed in the Warden's accounts for the recoining and waste of gold and silver moneys.

Under the earlier Stuarts it was customary to change the privy, or mint, mark after each trial, and to continue it until the next visit to the Star Chamber, but sometimes the demand for currency or other exigencies led to the adoption of an intermediate mark, in which case two would appear in the same pyx and would be tried separately. The first pyx trial of Charles, viz. on July 7, 1625 (m.m. Trefoil) was less than four months after his accession, and as it contained the coins of his father, James I, and none of his own, it has been omitted from the tabular statement which follows. For a similar reason I have included the assay held after the King's execution, viz. on November 9, 1649, as that was solely concerned with money bearing his portraits and legends.

In the fourth column of the table are the amounts of silver coin found on each opening of the pyx, which figures are a reliable guide to the comparative rarity of the mint-marks; it will be observed that the Triangle in Circle is the most plentiful, and that the Blackmoor's Head occupies the place of honour at the other end of the scale.

A TABLE COMPILED FROM THE MS. RECORDS OF THE EXCHEQUER.

Date of trial.	Mint-mark.	Denominations in pyx.	Amount of silver in pyx.
June 29, 1626	Fleur-de-lys	Gold, 28 c. 3½ grs. Angel.	£
" "	" "	Gold, 22 c. Unite. Double crown. Britain crown	
" "	" "	Silver, 5s., 2s. 6d., 1s., 6d., 2d., 1d., ½d.	51
Apr. 27, 1627	Blackmoor's head	Omits 5s.	3
" "	Long cross ²	As 1626 (a second pyx)	35
July 8, 1628	Castle	" "	9
June 26, 1629	Anchor	Omits 5s.	5
June 23, 1630	Heart	Omits 5s.	4
June 30, 1631	Feathers	Omits ½d.	60
June 21, 1632	Rose	As 1626	33
July 11, 1633	Harp	" "	143
June 27, 1634	Portcullis	" "	142
June 18, 1635	Bell	" "	182
Feb. 14, 1636	Crown	Omits Angel	2)
" "	"	As 1626 (a second pyx)	845}
May 8, 1638	Tun	" "	465
July 4, 1639	Anchor	" "	229
June 26, 1640	Triangle	" "	423
July 15, 1641	Star	" "	412
May 29, 1643	Triangle in circle	Omits ½d.	1824
July 15, 1644	P in two semicircles	Omits Angel.	826
May 12, 1645	R	" "	935
Nov. 10, 1645	Eye	" "	498
Feb. 15, 1646	Sun	" "	1192
Nov. 9, 1649	Sceptre	" " and 5s.	92

In the light of the foregoing table certain minor modifications of the text-books of Hawkins and Kenyon would appear to be desirable, but a consideration of such points is not within the scope of these notes.

A comparison of the dates in the first column with the mint accounts for the same period raises a puzzling question. The latter documents contain entries relating to the expenses of at least three trials of the pyx at Westminster, in 1628, '29, and '30 respectively, which have no counterparts among the papers dealing with

² *I.e.* cross on steps, or cross Calvary.

the trials and verdicts: whether these have been lost, or whether the additional trials referred to matters outside the ordinary coinage, it is difficult to say. The various issues of Briot's money have never been traced in the pyx returns, although it is not improbable that his work bearing m.m. Anchor was included in the test of 1639, when the Tower coins show the same mark; we are, however, left in doubt as to when the remainder of his issues were tried, assuming that they are to be regarded as ordinary currency, and that they were produced in the Tower. It would be natural to suppose that these pieces would have to undergo the usual formalities before or after being circulated. Can it be possible that one or other of the supplementary but unrecorded trials included the earlier examples of Briot's skill?

SOME NOTES ON "THE ACCOUNTS OF THE WARDENS OF THE EXCHANGE AND MONEYS WITHIN THE TOWER," 1625-1649.

These rolls contain among other items the details of the working costs of the mint, which were returned annually into the Exchequer for audit, the periods being from April 1 to March 31, unless otherwise stated. A few of the entries appear to be of some numismatic interest, and therefore worthy of reproduction in the pages of the *Chronicle*.

1628-9.—Edward Greene as chief graver received £30, and Charles Greene as under-graver £40, which is not what one would expect. The yearly payments were in the nature of retaining fees, as the engravers claimed additional remuneration for patterns of seals, medals,

or coins. The chief graver was here allowed a sum for making patterns for five varieties of gold and nine of silver coins, which had been shown to the King, but they are not identified in any way.

The expenses of a pyx trial at the Star Chamber on 26 June, 1628, are allowed, in addition to those incurred on 3 July. (See Table.)

1629-30.—Expenses of a second pyx trial on 10 Oct., 1629, are allowed.

1630-1.—Again, a second pyx on 26 June, 1630.

Allowance for preparing patterns for largesse at the baptism of the Prince, and “square dies fit for the impression of the said largesse.”

1634-5.—John East is now under-graver.

Allowance is made for an annuity of £50 to Nicha^s Bryott, as granted by letters patent of 22 Jan., 9 Charles, for the exercise of the office of one of the principal gravers or workers in iron of his Majesty's moneys in the Tower, payable during pleasure at the four usual Feasts, and to begin from Christmas, 1632. This definitely settles the status of Briot as from the end of the last-named year, and negatives the suggestion often put forward that he was chief graver. The accounts prove that he never held the latter office at the English Mint.

Ed. Greene is now allowed £220 for preparing patterns for five gold and four silver coins “for the moneys new made.”

1635-6.—Allowance of a payment to the chief graver for making tokens used for the healing of the King's evil and delivered to William Clowes, sergeant chirurgion, at 2*d*. the piece; the number being 5500. This is an interesting discovery, proving, as it does, that Charles used a touch-piece of base metal when the gold Angels had become too valuable to be distributed at such ceremonies. This is the first mention of copper or brass touch-pieces, but similar entries recur in the later accounts. There are also frequent references to the striking of “healing Angels.”

Mr. Grueber suggests that this so-called token is identical with the small medal shown on pl. 33, No. 23, of *Medallic Illustrations*, which reads—

Obv.—He touched them = A hand over four heads.

Rev.—And they weare healed = Rose and thistle under a crown.

I think there can be no doubt as to the correctness of this attribution. The same piece is included by Boyne, 2nd edition, among the *XVII.-Century Trade Tokens*, p. 1427, No. 102, and I have a specimen bored with a large hole for the white ribbon that was used.

1640-1.—There is here a charge for preparing the Irish Mint houses for the striking of "copper money to have been coyned there this yeare," which probably refers to the abortive suggestion in that year to issue shillings containing 9^d in a base metal, the only occasion, I believe, on which Charles wavered as to the fineness of his money. In the same year it was decided by the Council to remove the mint to Leaden Hall, as the workmen were afraid of the soldiers and the city afraid to bring in bullion (Dom. S. P.). But nothing more is heard of the proposal.

1641-2.—David Ramagh is allowed £85. 10. 0 for providing several instruments for the two mints at York and Shrewsbury, as detailed on a bill dated 7 July, which is unfortunately not forthcoming. This is evidence in favour of a close association between the Tower and the country mints as late as 1641-2. In the same account we learn that Nicholas Burgh, graver, was pressed into the service to engrave coining irons, and that John Decroso and Abraham Preston were similarly employed during portions of that year. This entry introduces three new gravers at the Tower; perhaps the first-named is identical with the Nich. Burghers, who prepared a medal at Oxford in 1648.

There is now a regrettable gap in the accounts from 1642 until 1645, in which latter year Ed. Wade and Thos. Simon appear as chief gravers, with John East as their deputy.

1646-7.—The payment of Briot's annuity for nine months to 25 Dec. shows that he died during the Christmas quarter of 1646.³

1 April, 1647, to 15 May, 1649.—Esther, the relict of Nich. Briot, receives from the Com. of Public Revenue, by warrant of 17 June, 1647, the sum of £258 . 10 . 0 for his mills, presses, and tools, which were delivered to the Warden of the Mint, to remain there for service.

It has been generally assumed that the famous engraver followed the fortunes of the King, and retired with his patron to Oxford and elsewhere. If that were so, it would argue great magnanimity on the part of the Parliamentary Government to continue the payment of the annuity down to the day of Briot's death at the end of 1646, when, *ex hypothesi*, he had thrown up his work at the Tower some two years previously.

In conclusion, I wish to make acknowledgment to Mr. W. J. Hocking, who has kindly answered several inquiries.

HENRY SYMONDS.

³ Since the foregoing paper was finished, the closing scenes of Briot's life have been made clear. He died, not in Oxford or in France, as has been stated, but in London, and by a freak of chance the window near which I am writing looks out upon his resting-place in the church of St. Martin's-in-the-Fields, where "Nicholaus Briett" was buried on Dec. 25, 1646. His will (P.C.C. 10 Fines) is dated Dec. 22, 1646, when he was no longer able to sign his name, and is stated to have been written in the parish of St. Martin, without giving any more precise place of abode. It is somewhat pathetic to read that the portions of his youngest daughter and younger son depended upon the payment of a debt by Charles I.

XXI.

A FIND OF GUPTA GOLD COINS.

(See Plate XIV.)

CONSIDERABLE hoards of Gupta gold coins are comparatively rarely found. Writing in 1889, Mr. V. A. Smith was able to refer¹ to only ten or eleven. Since the work of examining treasure trove found in the United Provinces was entrusted to a committee connected with the Lucknow Museum, a few odd coins have turned up, but none in any number till the present year. A find of forty has now been reported from a village called Tikri Debra, in police circle Gopiganj, in the district of Mirzapur. In view of the uncertainty attaching to the reading of some of the inscriptions, a full account of all the coins is here given. I am indebted to Mr. J. Allan of the British Museum for assistance in preparing this paper, and selecting specimens for publication. All the coins will be acquired for the Lucknow Museum.

The following abbreviations will be used in quoting the leading authorities on the Gupta coinage :—

<i>Coinage :</i>	V. A. Smith, <i>J.R.A.S.</i> , 1889, pp. 1-158.
<i>Notes :</i>	E. J. Rapson, <i>Num. Chron.</i> , 1891, pp. 48-64.
<i>Observations :</i>	V. A. Smith, <i>J.R.A.S.</i> , 1893, pp. 77-148.
<i>History :</i>	„ „ <i>J.A.S.B.</i> , 1894, pp. 164-212.
<i>I. M. Cat. :</i>	„ „ <i>Indian Museum Catalogue of Coins</i> , vol. i., 1906.

¹ *J.R.A.S.*, 1889, pp. 46 and 49.

Arranging the coins by their main types, as classified by Mr. V. A. Smith, in *Coinage* (pp. 11 *sqq.*), the following summary is obtained :—

King.	Type.	Number of coins.
Samudragupta	Javelin ²	2
"	Battle-axe	1
Candragupta II	Retreating Lion	1
"	Horseman to l.	3
"	Horseman to r.	5
"	Lion-Trampler	4
"	Combatant Lion	4
"	Lion-Slayer ³	1
"	Archer	15
Kumāragupta I	Combatant Lion	1
"	Horseman to l.	1
"	Horseman to r.	1
"	Archer	1

—40

The principal novelties are two coins of Candragupta, a "Retreating Lion" of a new variety, and the "Lion-Slayer," which may fairly be classed as a new type. A full description of the coins follows, with notes on those which present novel features.

SAMUDRAGUPTA.

Javelin or Spearman.

Refs. : *Coinage*, p. 68, with reading corrected in *Notes*, p. 53 ; *Observations*, p. 100 ; and *I. M. Cat.*, p. 102.

1.	Obverse.	Reverse.
	King l., casting incense on altar, and grasping staff or spear with l. arm ; Garuda-standard l. with crescent above. <i>Samudra</i> , vertically, under l. arm. Marginal legend, <i>Samaraśataṅ(i)tata y(o) j(i)tār(i)puro jī(o)</i>	Throned goddess with feet on lotus. Legend r., <i>Parākrama</i> ; mon., Pl. xviii. ⁴ 9 ; line between legend and goddess. Above, cornucopiae a mark ^
		<i>AJ.</i> 85. Wt. 112.4.

² Called "Spearman" in *I. M. Cat.*, p. 102.

³ I give this name to a new type in which the king attacks a lion with a sword.

⁴ The references for the monograms are to *I. M. Cat.*, Pl. xviii.

2. Obverse. Reverse.
 As on 1, but *Samudra* inside, and *Gupta* outside the staff or spear, vertically. Marginal legend,
-marasatavitata vi As on 1; mon., Pl. xviii. 8.
AJ. 85. Wt. 112.3.

Battle-axe.

Refs.: *Coinage*, p. 72; and *I. M. Cat.*, p. 104.

3. Obverse. Reverse.
 King facing, with head l., leaning with l. arm on battle-axe; r. hand on hip. An attendant in l. field supports a crescent-tipped standard. Legend under l. arm, vertically, *Samudra*. Marginal legend, *Kṛitānta-paraku ja ty(ā)j(i)ta* Throned goddess. Legend, *Kṛitāntaparaku*; mon., Pl. xviii. 2; above cornucopiae, Pl. xviii. 47.
AJ. 8. Wt. 114. [Pl. XIV. 1.]

The legend on the obverse points to a new reading, which cannot at present be completed. There is no space between (*para*)*sū* and *ja* for the *rā* of *rājādhirāja*, which is usually read. For the last word of the legend compare *I. M. Cat.*, No. 29, p. 104, where, however (see Pl. xv. 9) *-tyājita* appears on right margin, and not on left, as on the coin now described.

CANDRAGUPTA II.

Archer.

Refs.: *Coinage*, p. 80; *Notes*, p. 55; *Observations*, p. 104; *History*, p. 168; and *I. M. Cat.*, p. 105.

4. Obverse. Reverse.
 King standing l.; in l. arm bow with string outwards; beyond string, vertically, *Candra*; Garuda-standard behind r. arm. Marginal legend, *Deva Śrī ma* (letters very faint). Goddess on lotus. In r. hand holds (?) noose, and in l. flower; mon., Pl. xviii. 9. Legend, *Śrī vikramah*.
AJ. 8. Wt. 121.2.

This coin appears to differ from any published hitherto, in having the lotus reverse combined with an obverse bearing the bow-string outwards and the right hand of the king pointing downwards. Both obverse and reverse, however, conform to known types.

- | | | |
|----|---|---|
| 5. | Obverse.
King facing l., grasping with l. arm bow with string inwards; r. hand extended over altar; Garuḍa-standard behind r. arm; below l. arm, vertically, <i>Candra</i> . Marginal legend, (?) <i>Deva Śrī . . . Candraguptah</i> . | Reverse.
Goddess seated on lotus; holds noose in r. hand and flower in l. Legend, r., <i>Śrī vikrama</i> ; mon., Pl. xviii. 9. |
|----|---|---|

A7. 85. Wt. 120.6. [Pl. XIV. 2.]

I cannot find that any variety of this type has been published on which the king is shown as casting incense on an altar, though the "Umbrella" type (*Coinage*, p. 91) depicts this.

- | | | |
|-------|---|--|
| 6-12. | Obverse.
King standing l., holding bow in l. hand and arrow in r. hand; Garuḍa-standard behind r. arm; <i>Candra</i> , vertically, below l. arm. Marginal legend gone. | Reverse.
Goddess seated facing, on lotus, holding noose in r. hand; l. hand raised and holding lotus near the flower. Margin, <i>Śrī vikrama</i> ; mon., Pl. xviii. 15. |
|-------|---|--|

A7. 75. Wts. 119.7 [Pl. XIV. 3], 120.8, 122, 120.1, 120.1, 121.2, 122.5.

- | | | |
|-----|---|--|
| 13. | Obverse.
As on 6-12, but marginal legend, <i>Deva Śrī mahārājādih(i)</i> | Reverse.
As on 6-12, but l. hand extended downwards, holding lotus with long stalk; mon., Pl. xviii. 9. |
|-----|---|--|

A7. 8. Wt. 122.4.

- | | | |
|-----|--|-----------------------|
| 14. | Obverse.
As on 6-12, but marginal legend, <i>Candraguptah</i> . | Reverse.
As on 13. |
|-----|--|-----------------------|

A7. 85. Wt. 122.5.

- | | | |
|---------|--|---|
| 15. | Obverse.
As on 6-12, but marginal
legend, <i>Deva . . . gupt . . .</i> | Reverse.
As on 13, but mon.
doubtful.
A/. 7. Wt. 118.8. |
| 16, 17. | Obverse.
As on 6-12, but marginal
legend, <i>Deva Śrī mahā</i> | Reverse.
As on 6-12, but l. hand
rests on knee, and lotus is
behind l. arm; mon., Pl.
xviii. 14.
A/. 8. Wt. 125.2.
A/. 75. Wt. 120. |
| 18. | Obverse.
As on 6-12, but
<i>Candraguptah.</i> | Reverse.
Goddess seated facing,
on throne, holding noose (i)
in r. hand, and cornucopieae
in l. Margin, <i>Śrī vikrama.</i>
A/. 75. Wt. 120.5. |

On Nos. 13, 14, and 15 the king's right hand points downwards, these coins being thus exceptions to the general rule, pointed out by Mr. Rapson (*Notes*, p. 56), and accepted by Mr. V. A. Smith (*Observations*, p. 104), that, with the lotus reverse, the right hand of the king on the obverse always points upwards. Nos. 6-12 and 16, 17 are normal in this respect, while No. 18 conforms to type for the throne reverse.

Horseman to Left.

Refs. : *Coinage*, p. 85 ; *Notes*, p. 58 ; *Observations*, p. 109 ;
I. M. Cat., p. 108.

- | | | |
|-----|---|--|
| 19. | Obverse.
King on horseback to l.,
horse prancing ; in l. hand
holds an object which sticks
out behind ; sword on l.
thigh. Marginal legend,
<i>Parama ma(hā)rā-
jādhirāja Śrī Candraguptah.</i> | Reverse.
Goddess seated l., on
round stool, holding double
noose in r. and lotus in l.
hand. Legend, <i>Ajitavikkra-
mah</i> ; mon., Pl. xviii. 18.
A/. 8. Wt. 120.9. [Pl. XIV. 4.] |
|-----|---|--|

Mr. Allan thinks that the object near the king's left hand is part of his dress, and this is possible. It is clearly not a bow, as in some varieties, *e.g.* the following. A Bodleian coin (*Notes*, Pl. ii. 5) resembles it.

- | | | |
|---------|--|--|
| 20, 21. | Obverse. | Reverse. |
| | As on 19, but no sword; the object in king's l. hand is a bow. One coin has <i>bhāgavata</i> after <i>parama</i> . | As on 19, but noose is single; mon., ☩. The subscript <i>ra</i> in <i>kra</i> makes a long curve to the l. |
| | N. .75. Wt. 117.7. [Pl. XIV. 5.] | N. .75. Wt. 119.8. |

This variety may be distinguished from No. 5 by the absence of a sword, the clearly defined bow, the single noose, and style of writing *kra*. *I. M. Cat.*, Pl. xv. 15, appears to be of this variety.

Horseman to Right.

Refs.: *Coinage*, p. 84; *Notes*, p. 58 (amplifying the reading); *Observations*, p. 109; and *I. M. Cat.*, p. 107.

- | | | |
|-----|---|---|
| 22. | Obverse. | Reverse. |
| | King on horseback to r., a streamer attached to r. arm, and bow slung behind back. Legend, <i>Parama . . . Candraguptah</i> . | Goddess seated l., on round stool, holding noose in r. and lotus in l. hand; mon., Pl. xviii. 51. Legend, <i>Ajitavikrama (1 h)</i> . |
| | N. .8. Wt. 120.6. [Pl. XIV. 6.] | |
| 23. | Obverse. | Reverse. |
| | As on 22, but streamers absent, part of bow visible. Legend, . . . <i>ndra . . . -pta</i> . | As on 22, but mon. cut, and no final <i>h</i> . Legend separated from goddess by a row of dots very close together. |
| | | N. .75. Wt. 119.8. |
| 24. | Obverse. | Reverse. |
| | As on 22, but only hinder portion of bow visible; crescent above head. Legend, <i>Paramabhaga . . . Candraguptah</i> . | As on 22, but mon. is wanting, and there is no final <i>h</i> . |
| | | N. .85. Wt. 121.8. |

Combatant Lion.

Refs. : *Coinage*, pp. 89, 158 ; *Notes*, p. 58 ; *Observations*, p. 111 ; and *I. M. Cat.*, p. 108.

- | | | |
|-----|---|--|
| 31. | Obverse. | Reverse. |
| | King to l., with l. leg bent ; holds bow in r. hand, and shoots lion on l. in mouth. Marginal legend, <i>Na śhāvīkrama.</i> | Goddess seated facing, on lion to l. ; holds noose in r. hand and flower in l. Legend, <i>Sīhāvīkrama</i> ; mon., Pl. xviii. 17. |
| | <i>A.</i> .75. Wt. 119.4. [Pl. XIV. 10.] | |
| 32. | Obverse. | Reverse. |
| | As on 31, but legend, <i>Nara śhāvīkrama.</i> | As on 31, but mon., Pl. xviii. 9. |
| | <i>A.</i> .75. Wt. 120.2. [Pl. XIV. 11.] | |
| 33. | Obverse. | Reverse. |
| | As on 31, but legend, <i>krama.</i> | As on 32. |
| | <i>A.</i> .75. Wt. 119.7. | |
| 34. | Obverse. | Reverse. |
| | As on 31, but king's r. foot is not quite clear of lion. Legend, <i>Śrī (?) sīhāvīkrama.</i> | As on 31, but lion faces r., and goddess holds cornucopie in l. hand instead of a flower ; mon. doubtful. |
| | <i>A.</i> .8. Wt. 121.3. [Pl. XIV. 12.] | |

As pointed out by Mr. V. A. Smith (*Coinage*, p. 89), there is very little difference between the types styled respectively "Lion-Trampler" and "Combatant Lion." It seems possible that Nos. 31-33 should really be classed with variety δ of the former (*Coinage*, p. 88), but these coins show clearly that the right foot of the king rests on the ground, and not on the lion. The obverse of No. 34 resembles that of the coin of variety δ in the Bodleian (*Notes*, Pl. ii. 9), but the reverse, with lion facing right, differs.

*Retreating Lion.*Refs. : *Coinage*, p. 89 ; and *Observations*, p. 112.

35.

Obverse.

King facing, with head turned to l., holding bow in r. hand and arrow in l.; lion on l. with back to king. Marginal legend, *Deva Śrī mahārājādh(i)r . . . Candraguptah.*

Reverse.

Goddess facing, seated on lion r.; noose in r. hand, and lotus in l.; mon., Pl. xviii. 49. Margin, *Sīṅha-vikramah.*

N. .8. Wt. 122. [Pl. XIV. 13.]

This coin differs in inscription, and in some details, from the only specimen hitherto known of this type, in the British Museum. I see no trace of an arrow sticking in the lion's head. On the reverse the lion faces to right, and it is the right foot of the goddess, not the left, which hangs over the lion's back. There is no staff or axe between the goddess and the inscription, which reads *sinha* and not *singha*. The name of the king is plain, thus supporting Mr. V. A. Smith's attribution of the other specimen (*Coinage*, p. 90) to Candragupta II.

Lion-Slayer.

This is a new type, differing from other types in which the king attacks a lion, in that his weapon is a sword, and not a bow and arrow.

36.

Obverse.

King standing to r., holding sword uplifted in r. hand; to r. lion rearing up and looking back at king. Margin, *Naren[dra] Can[dra] prithi . . .*

Reverse.

Goddess seated facing on lion to l.; holds noose in r. hand and lotus in l. Margin, *Sīṅhavikkramah*; mon., Pl. xviii. 9.

N. .8. Wt. 121.2. [Pl. XIV. 14.]

The letters in square brackets are by no means clear, but Mr. Allan tells me they are often lightly indicated.

KUMĀRAGUPTA.

Tiger (Combatant Lion).

Refs.: *Coinage*, p. 107, corrected in *Observations*, p. 123; see also *I. M. Cat.*, p. 114, for a fairly complete reading of the inscription.

- | | | |
|-----|---|---|
| 37. | Obverse. | Reverse. |
| | King facing, with head turned to l.; bow in r. hand; king shooting tiger in mouth. Under l. arm, <i>Ku</i> , with crescent above. Legend, <i>Śrī ma</i> († <i>ā</i>) | Goddess standing l., with l. hand on hip, holding lotus; feeding peacock with r. hand; mon., Pl. xviii. 2. Legend, <i>Kumāraguptodhi-rāj(ā)</i> . |

N. 75. Wt. 125.4. [Pl. XIV. 15.]

Horseman to Left.

Refs.: *Coinage*, pp. 39 and 103; *Observations*, p. 120; *I. M. Cat.*, p. 113.

- | | | |
|-----|---|---|
| 38. | Obverse. | Reverse. |
| | King on horseback to l., carrying bow at back. Legend <i>mahendra kamajito jaya</i> . | Goddess seated on stool to l., feeding peacock with r. hand, and holding flower in l. Margin, <i>Ajitamahendra</i> . Mark over r. hand. |

N. 75. Wt. 123.6. [Pl. XIV. 16.]

The full inscription on coins of this type is doubtful. At p. 39 of *Coinage*, Mr. V. A. Smith says that a coin in the Bodleian gives the title *Kramājīta*, but this statement is not repeated at p. 104, where the obverse legend on that coin is described as illegible. It is not figured in *Notes*, though it is mentioned in the list of coins (p. 63). The letter *ka* bears no sign of subscript *r*, but this is possibly intended, as in the parallel case on No. 36 of this paper. Mr. Allan suggests that the word may be *karmajīto*. There is a slight mark above the *ma*, which might be either *r* or *ā*. On the reverse there is no trace of the vowel *o* in *ajīta*, as read in *Coinage*, p. 103,

though the vowel is clear on the obverse. On the left of the coin, in the place usually occupied by the monogram, are two clusters of dots.

Horseman to Right.

Refs. : *Coinage*, p. 100 ; *Observations*, p. 118 ; *I. M. Cat.*, p. 112.

39.	Obverse.	Reverse.
	King on horseback to r. Marginal legend, <i>Kulachamaśa Śrī jaya . . . mahendrah . . . gupta.</i>	Goddess seated on stool to r. ; with r. hand offers fruit to peacock, and in l. arm holds flower. Margin, <i>Ajit(o) mah(endra)</i> . No monogram.

AJ. 75. Wt. 126.8. [Pl. XIV. 17.]

The first five letters of the obverse inscription, though apparently clear, do not make sense. They differ completely from the various readings suggested in the references quoted above.

Archer.

Refs. : *Coinage*, p. 95 ; *Observations*, p. 115.

40.	Obverse.	Reverse.
	King standing l. ; bow in l. hand, with string inwards ; r. hand extended across Garuḍa-standard ; no name under arm. Marginal legend, <i>ptah.</i>	Goddess seated on lotus, holding noose in r. hand, and lotus in l. Margin, <i>Śrī makendra</i> ; mon., Pl. xviii. 2.

N. 75. Wt. 125.1.

The statement at p. 98 of *Coinage*, that coins of this type always seem to have *ku* under the king's left arm, on the obverse, is corrected at p. 115 of *Observations*.

R. BURN.

MISCELLANEA.

VERGIL AND COINS.

FOLLOWING a suggestion of Mr. G. F. Hill,¹ I wish to call attention to five references to cities in the *Aeneid* which are of such a character as to appear to one familiar with the monetary series of those cities to have been influenced by the coin-types themselves.

The passages in question are as follows:—

1. Agrigentum. *Aen.* 3. 703 f.:

“*Ardus inde Acragas ostentat maxima longe
moenia, magnanimum quondam generator equorum.*”

Compare the occurrence of the quadriga, or the free horse, on various Agrigentine issues from c. 415 to c. 287 B.C.² A better epithet than *magnanimi* for the horses of the famous “medallion” it would be hard to find.

2. Carthage. *Aen.* 1. 444:

“... *caput acris equi.*”

Compare the occurrence of the horse's head on Carthaginian issues of the periods c. 410–310 and c. 241–218—tetradrachms and hexadrachms.³

3. Gela. *Aen.* 3. 702:

“*immanisque Gela fluvii cognomino dicta.*”

Compare the occurrence of the river-god on Geloan coins from the earliest period until c. 405 B.C.; many of these coins are tetradrachms.⁴

4. Selinus. *Aen.* 3. 705:

“... *palmosa Selinus.*”

¹ *Coins of Ancient Sicily*, p. 50.

² I follow the chronology of Head, *Hist. Num.*

³ Hill, *op. cit.*, p. 145.

⁴ See Hill, *op. cit.*, p. 50.

Compare the selinon-leaf which occurs either as type or as symbol on almost all the Selinuntine issues (chiefly didrachms and drachms) from the beginning of the coinage to the destruction of the city in 409 B.C.

This rare plant, as represented on some at least of the coins, might well have been mistaken by the Augustan antiquaries for the palm,⁵ a tree which itself, although occurring occasionally in Sicily in antiquity as now,⁶ can hardly have been strikingly characteristic, one would suppose, of the Selinuntine flora.

5. Tarentum, *Aen.* 3. 551 :

“ . . . *sinus Herculei* . . . *Tarenti.*”

Compare the occurrence of the head, or some one of the labours, of Herakles on Tarentine issues of small silver from c. 400 to c. 272, and of small bronze from c. 300 to c. 272 B.C.

In each instance it will be observed that the coin-type in question is represented by numerous examples and several issues; on coins which bear on their face clear indications as to the issuing mint,⁷ and, except in the case of the very frequent Tarentine type of Herakles, by pieces which in appearance might well have been attractive to the Augustan amateurs.

It is a reasonable inference from the oft-quoted passage in Suetonius, *Aug.*, 75, that the collecting of ancient coins was in vogue in the circle of Augustus. The confronting of the above passages in the *Aeneid* with the respective monetary series conduces to the impression that the coins were known to Vergil, and that to him, as to a modern amateur, the mention of the particular city evoked a mental image of its coin-types, which in turn influenced the poet in his choice of

⁵ Mr. G. F. Hill, who has been so kind as to read this note in manuscript and to make some much-appreciated suggestions, informs me that “many a modern also mistakes the selinon-leaf of Selinus for a palm-leaf.”

⁶ Compare the didrachm of Camarina (Hill, *op. cit.*, p. 80).

⁷ The curious misinterpretation of the Agrigentine inscription so ingeniously traced down by M. Th. Reinach, *L'Histoire par les Monnaies*, p. 81, notwithstanding; the Rhodian antiquaries, who were Pliny's ultimate source, did not realize that the decoration and the inscriptions on the cups which they saw had been made by a mould taken from a coin, and thus they were led to attribute the cups to a *torreutes* *Acragas.

descriptive epithets, or, as in the case of Carthage, in his choice of local myths.*

The above is perforce in the nature of a suggestion rather than a demonstration. But in view of the interest attaching to the question of Vergil's methods of composition, as well as to all that has to do with the history of antiquarian pursuits in the Augustan age, I feel that it is deserving of consideration.

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FORGERIES FROM CAESAREA MAZACA.

A NUMBER of silver coins of the four types figured above have reached Europe through Smyrna, where a large hoard composed chiefly of type 2 was bought up, apparently in good faith, by local and Athenian dealers from an Armenian jeweller in the bazaars. I saw a few of types 3 and 4 still in the jeweller's hands (May, 1910), and inquired as to their provenance. The reply "Kaisaryeh" raised my suspicions, as the place (Caesarea Mazaca) is a well-known centre for forgeries, and type 1 has *Lycian* characters on the reverse. Arriving at Kaisaryeh in the course of my journey, I became acquainted with the forger of the dies for type 2; and a coin of type 1, which I came across a few days later in the bazaars, was sold to me as a forgery by another hand. This condemns the whole hoard, since all four types were represented in the stock of the Smyrna jeweller when a collector-friend of mine had the pick of the lot. The handling of the coins, which are

* The introduction of the story of Arethusa in connexion with Syracuse, *Aen.* 3. 694 ff., may in like manner have been influenced by the frequent occurrence of the head of a goddess on Syracusan coins; but the legend, apart from the coins, was so familiar from literature as to suggest itself to the poet.

(a) made of silver, (b) struck with a punch, and (c) put on the market in hundreds, speaks eloquently for the misdirected intelligence of the exploiters. I may add that the artist of type 2, who is reputed the most skilful at Kaisaryeh, is entirely illiterate, and nominally Mohammedan by religion. He is a fair cameo-engraver, and when I left the town was being solicited by his patrons to engrave (after the illustration of a tetradrachm from Svoronos' edition of Head's *Historia Numorum*) a decadrachm of Tigranes: the result, I should say, will deceive no one.

F. W. HASLUCK.

Athens, Nov. 3, 1910.



COSIMO I, DUKE OF FLORENCE, BY CESARE DA BAGNO.

CESARE di Niccolò di Mariano Federighi, called da Bagno, from his birthplace, S. Maria in Bagno, died in 1564 at Milan. Armand, in his first volume (p. 174, No. 3), attributed to him a rare medal of Cosimo I as Grand Duke. But later (vol. iii. p. 77) he rightly points out that, since Cosimo was not made Grand Duke until 1569, Cesare da Bagno cannot

have made this medal. And, indeed, the resemblance in style on which Armand originally based his attribution is anything but clear.

Nevertheless, there is a medal of Cosimo by this artist, although it exists only, so far as I know, in the form of a lead proof of the obverse, which, owing to the faulty casting at the edge, was never even trimmed. It is in my collection, and represents the bust of the Duke to left, wearing a richly decorated cuirass, and sash fastened on his right shoulder. The inscription is COS · ME · DVX FLO · II. The diameter (ignoring the remains of the runner at the edge) is 76 mm. (see figure). Although unsigned, it bears all the marks of Cesare da Bagno's hand, in its low relief, sketchy modelling, and elaboration of the decorative portion of the bust.

MAX ROSENHEIM.

NOTICE OF RECENT PUBLICATION.

Roman Coins from Corstopitum.

LAST year attention was called in these pages to Mr. H. H. E. Craster's report of coins from Corstopitum (*Num. Chron.* 1909, p. 431). In the latest report on the excavations (reprinted from *Archaeologia Aeliana*, 3rd series, vol. vi.) Mr. Craster again earns the gratitude of all who are interested in Roman Britain by giving a list of all coins earlier in date than 260 A.D. found during the last season. Of eight *asses* of Pius, he notes that three bore the "Britannia" reverse, and considers that this supports Mr. F. A. Walters' theory that the "Britannia" coins were minted in Britain. Until, however, some evidence is forthcoming of peculiarities of fabric, as distinct from type, distinguishing these "Britannia" coins, we shall prefer to suppose that they were minted in Rome and exported to Britain. It was only natural that coins of a type calculated to bring home to the Britons the reality of the Roman conquest should be sent to this country in greater numbers than elsewhere.

Of coins certainly struck in Britain, Mr. Craster notes an interesting, if minute, variety. It is a coin of Crispus (rev. VICTORIAE LAETAE PRINC. PERP. mm. P LON) with a cross within a wreath on the altar. This shows "that Christian symbols were used in the London mint in the reign of Constantine, and that, too, at a time when they had not yet

been introduced at Rome or into the three Gallic mints of Trier, Lyons, and Arles."

Finally, we may mention a large bronze coin of Septimius Severus struck at Hadrianeia, in Hellespont : one of the few authenticated instances of a "Greek Imperial" found in Britain. To the other instances noted by Mr. Craster may be added a denarius of Amisus found at Silchester ; but as that by its weight would easily circulate with the Roman Imperial denarii, its occurrence in this country is less surprising. Mr. Craster is inclined, if we may say so, to exaggerate the medallic, as distinct from the monetary, nature of these Greek Imperial bronze coins. That they were struck on special occasions, such as local festivals, may be true ; but to speak of them as "medals" merely is to imply that they were purely commemorative, and that cannot be proved. They were issued doubtless to supplement the ordinary currency at times when a press of visitors made this necessary. They were also, sometimes, in a sense commemorative, but they still remained coins, although the larger ones may have been treasured and transported to distant provinces.

G. F. H.

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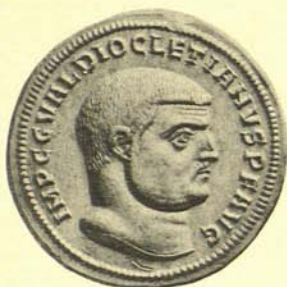
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ROMAN MEDALLIONS AND COINS



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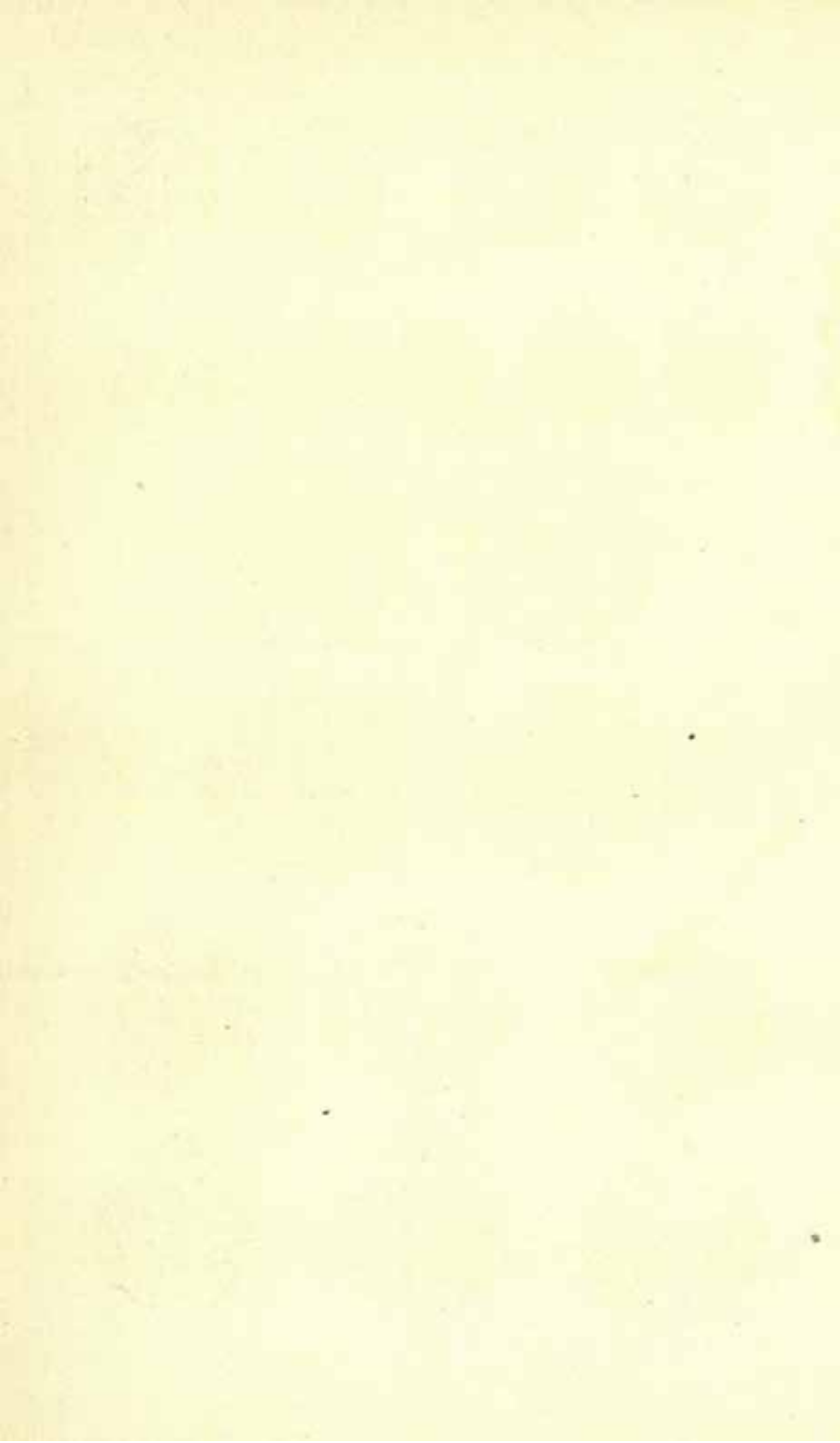
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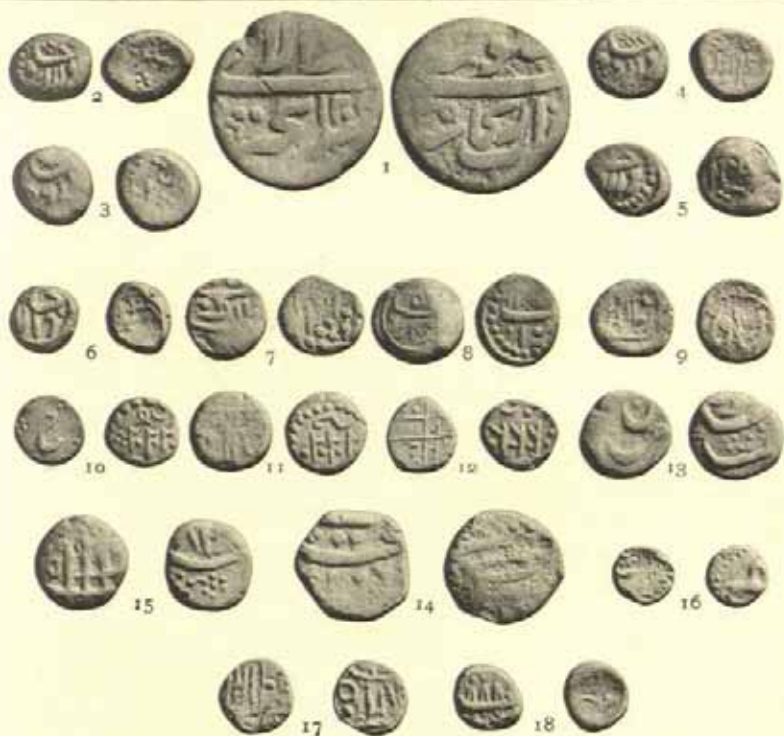


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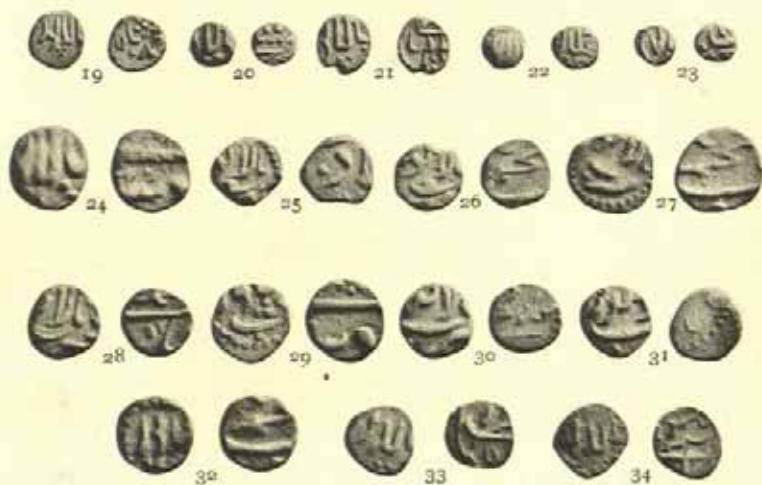




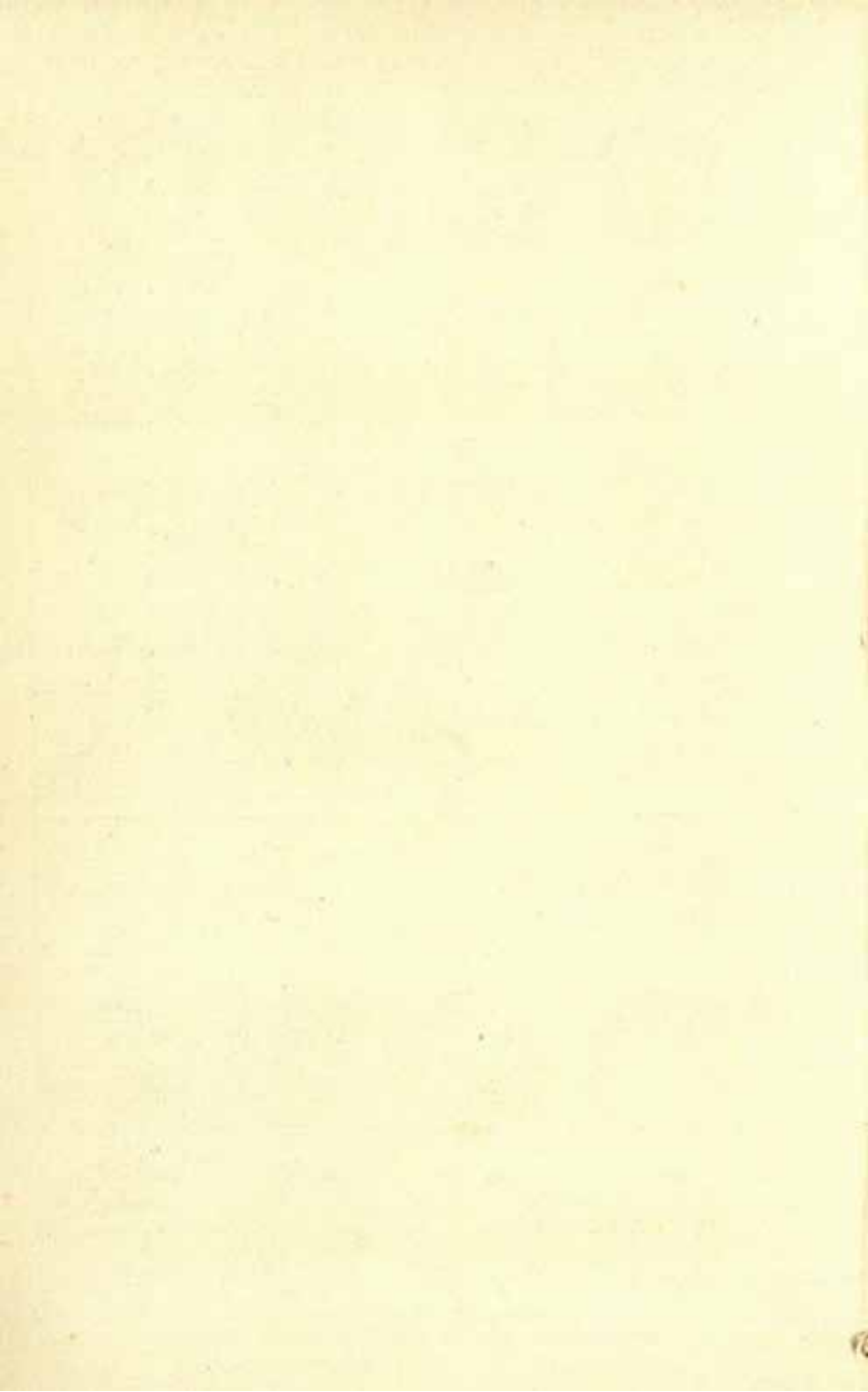
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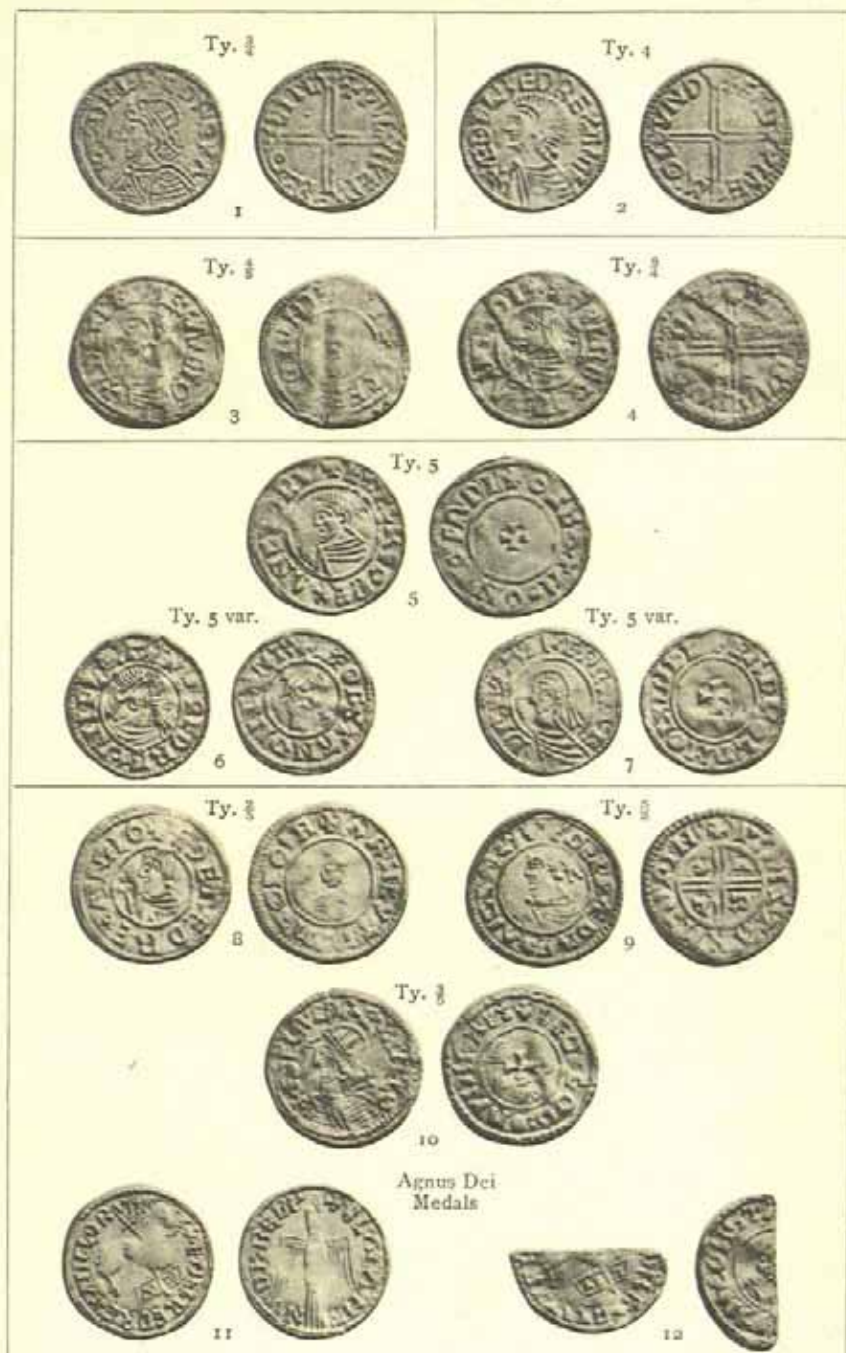


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COINS AND MEDALS OF AETHELRED II



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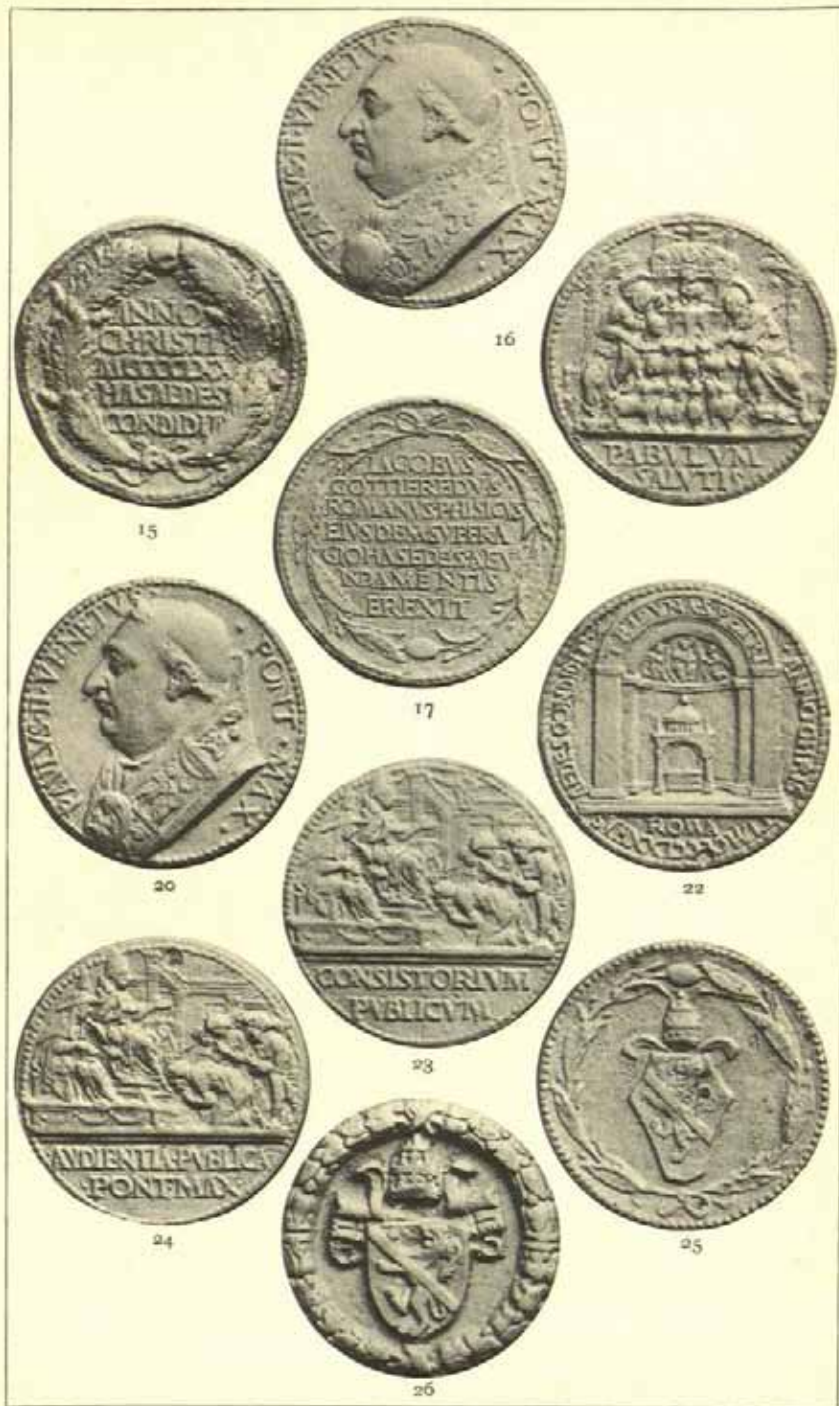


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MEDALS OF PAUL II



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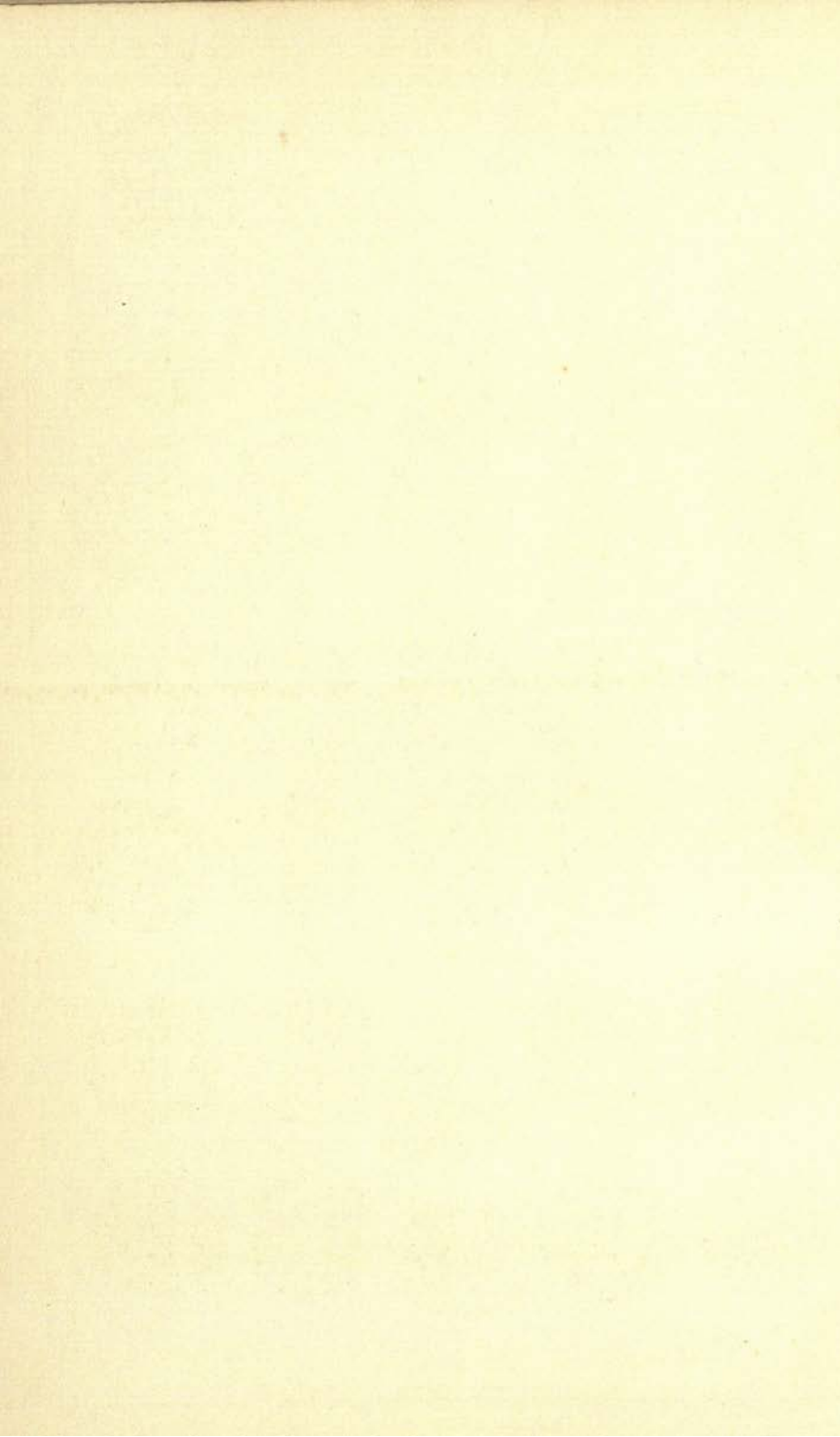
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PROCEEDINGS
OF THE
ROYAL NUMISMATIC SOCIETY.

PROCEEDINGS OF THE
ROYAL NUMISMATIC SOCIETY.

SESSION 1909—1910.

OCTOBER 21, 1909.

SIR HENRY H. HOWORTH, K.C.I.E., F.R.S., F.S.A., President,
in the Chair.

The minutes of the ordinary meeting of May 20 were read and confirmed.

Miss Agnes Baldwin, Mr. Stephen K. Nagg, Mr. Herbert Nicklewicz, and M. Michel Soutzo were elected Fellows of the Society.

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

1. *Journal International d'Archéologie Numismatique*, 1908. Pts. 1, 2, 3. From J. N. Svoronos.
2. *Bonner Jahrbücher*, Heft. 118, Pt. 1.
3. *Notices extraites de la Revue Numismatique*. From A. Blanchet.
4. *Shannonsystem zur Anordnung ostasiatischer Lochmünzen*. From F. v. Wendstein.
5. *Das Iseum Campense auf einer Münze des Vespasianus*. By H. Dressel. From the Author.
6. *American Journal of Numismatics*. Vol. xliii., Pts. 2 and 3.

7. Medals, &c., illustrative of Medicine. By Dr. H. R. Storer. From the Author.
8. Aarbøgen for Nordisk Oldkyndighed og Historie, 1908.
9. Monatsblatt der numismatischen Gesellschaft in Wien. Nos. 311 to 315, and Jahresbericht, 1908.
10. Medallie Illustrations of the History of Great Britain and Ireland. Plates xci.-c. From the Trustees of the British Museum.
11. Proceedings of the Cambridge Antiquarian Society. Nos. lii.-liv.
12. Revue Belge de Numismatique, 1909. Pts. 3 and 4.
13. Tin and Lead Coins from Brunei. By Dr. R. Hanitsch. From the Author.
14. Rivista Italiana di Numismatica. Pt. 2, 1909.
15. Annual Report of the Deputy-Master of the Mint, 1908.
16. American Journal of Archaeology. Vol. xiii., Nos. 2 and 3.
17. The Canadian Antiquary. Vol. vi., Nos. 2 and 3.
18. Un Sou d'or pseudo-Imperial du V. ou VI. siècle. By Vicomte B. de Jonghe. From the Author.
19. Coinage of the Sultans of Madura. By Dr. E. Hulstsch. From the Royal Asiatic Society.
20. Revue Numismatique, 1909. Pt. 2.
21. Le Tir à l'Oiseau de Farney du 25 Août, 1775. By E. Demole. From the Author.
22. Bulletin de l'Académie royale de Belgique, 1909. Pts. 4-8.
23. Journal of the Royal Society of Antiquaries of Ireland. Vol. xxxix., Pt. 2.
24. Médailles concernant Jean Calvin. By E. Demole. From the Author.
25. Proceedings of the Royal Irish Academy. Vol. xxvii., Sec. C, Pts. 14-18.
26. Archaeologia Cantiana. Vol. xxviii.

27. Index to Archaeological Papers published in 1907. By Bernard Gomme. From the Author.
28. *Revue Suisse de Numismatique*. Vol. xv., Pt. 2.
29. *Appunti di Numismatica Romana*, No. xciv. By F. Gneccchi. From the Author.
30. *Historical Roman Coins*. By G. F. Hill. From the Publishers.
31. *Facing Heads on Ancient Greek Coins*. By Miss A. Baldwin. From the Author.
32. *Sir John Evans: Bibliographie et Biographie*. By L. Forrer. From the Author.
33. *Zeitschrift für Numismatik*. Vol. xxvii., Pts. 3 and 4.
34. *Journal of the British School at Athens*. No. xiv.
35. *Biographical Dictionary of Medallists*. Vol. iv. By L. Forrer. From the Author.
36. *The Roman Fort at Manchester*. By F. A. Bruton.
37. *Excavations at Toothill and Melandra*. By F. A. Bruton. Nos. 36 and 37 from the Publishers.
38. *Archaeologia Aeliana*. Vol. v.

Mr. T. Bliss exhibited five base testoons of Edward VI, including a specimen from the Bristol Mint with Thomas Chamberlain's mint-mark, a specimen countermarked with a greyhound, and two others bearing the portcullis counter-mark.

Mr. Percy H. Webb exhibited an interesting series of second and third brass coins of Carus and Carinus and their contemporaries.

Mr. F. A. Walters showed four unpublished varieties of the light groat of Henry IV, including a specimen bearing a remarkably early type of bust with the name HENRIC punched over RICARD.

Mr. J. H. Pinches exhibited a specimen in bronze of the medal presented by the Royal Geographical Society to members of the Antarctic Expedition.

Mr. C. T. Seltman read a paper on "The Coins of Antigonus I and Demetrius Poliorcetes," in which he proposed a chronological arrangement of their issues. It has hitherto been thought that only staters and tetradrachms, with types and name of Alexander the Great, were struck by Antigonus and Demetrius before the battle of Salamis in 306 B.C. Mr. Seltman described two unique tetradrachms, with the types of Alexander and the names of Antigonus and Demetrius respectively, which, from the absence of the regal title, must have been struck before the battle of Salamis, when Antigonus and his son assumed the title of "king." These pieces are of Asiatic, and probably Syrian, work. To the period of the stay of Demetrius in the Peloponnese, from 304 B.C. to 301 B.C., when he was recalled to Asia to aid his father, gold staters and tetradrachms with the legends ΒΑΣΙΛΕΩΣ ΑΝΤΙΓΟΝΟΥ and ΒΑΣΙΛΕΩΣ ΔΗΜΗΤΡΙΟΥ and the types of Alexander the Great were ascribed. The last issues of Demetrius cover the period from his seizure of the throne of Macedon in 294 B.C. to his overthrow in 287 B.C. To this period Mr. Seltman ascribed the series of coins in gold, silver, and copper, with or without portrait, having the inscription ΒΑΣΙΛΕΩΣ ΔΗΜΗΤΡΙΟΥ and reverse types, horseman, Poseidon, Pallas, or a prow. This Paper is printed in Vol. IX. pp. 264-273.

A Paper by Mr. G. F. Hill on "Two Italian Medals of Englishmen," was also read. The first of these was a medal of Sir John Cheke (1514-1557), who is known to have been in Italy in 1555. The medal is clearly the work of a Paduan classicizing artist of the sixteenth century, and from the remarkable similarity of the work to that of Martino da Bergamo's medal of the Paduan jurist Marco Mantova Benavides, might be his work. The second medal described was of Richard White (1539-1611) of Basingstoke, made at Padua by the artist Ludovico Leoni, who signed it. This Paper is printed in Vol. IX. pp. 292-296.

NOVEMBER 18, 1909.

SIR HENRY H. HOWORTH, K.C.I.E., F.R.S., F.S.A., President,
in the Chair.

The minutes of the ordinary meeting of October 21 were read and confirmed.

Colonel J. Biddulph and Mr. F. W. Voysey Peterson were elected Fellows of the Society.

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

1. Progress Report of the United States National Museum, 1908.
2. Forvännan-Meddelanden från K. Vitterhets-Historie og Antikvitets Akademien, 1908. From the Academy, Stockholm.
3. Medals, Jetons, &c., illustrative of Medicine. Art. 80. By Dr. G. H. Storer. From the Author.
4. Revue Numismatique, 1909. Pt. 3.
5. Journal International d'Archéologie Numismatique, 1908. Pt. 4. From J. N. Svoronos.

Mr. F. A. Walters exhibited a groat of the second coinage of Henry VII with mint-marks a greyhound's head on the obverse, and the very rare rose mint-mark on the reverse.

Lady Evans exhibited a specimen in bronze of the Hudson Fulton anniversary medal recently issued by the Circle of Friends of the Medallion.

Mr. Horace W. Monckton showed a one-bajocco piece of the "Roman Republic," cast at Ancona in 1849; and a bronze admission ticket to the Botanic Gardens of Amsterdam, dated 1684.

Mr. Percy H. Webb exhibited two Roman bronze coins in fine condition: one struck by P. Canidius Crassus in Egypt in 31 B.C., and the other struck by Q. Oppius, one of Julius Caesar's prefects in the East, about 45 B.C.

Prof. C. Oman read a Paper on "The Fifth-Century Coins of Corinth," which he arranged chronologically in nine classes. In Class I. were placed the latest issues of the Archaic Series, characterized by the letter *koppa* on both sides. The pieces of transitional fabric formed the next three classes. In the first of these (451-448 B.C.) the archaic Pallas head disappears, and is replaced by a severe head of almost masculine type in an incuse square; the second transitional series (448-440 B.C.) is marked by the trident symbol on the obverse, the disappearance of the incuse square, and the introduction of a more elegant Pegasus; the last transitional series (440-433 B.C.) has no symbols on the reverse, and is marked by the introduction of the neckguard on the helmet of Pallas. In Class V. (433-431 B.C.) Prof. Oman placed several rare coins having a murex shell as symbol on the obverse, and in Class VI. (431-414 B.C.) those with the palmette symbol. In Classes V. and VI. appears the later straight-winged Pegasus. Class VII. (414-412 B.C.) contains the interesting series having a circle of dolphins around the head of Pallas, which undoubtedly commemorates the Syracusan alliance of 414 B.C., as the circle of dolphins, which had long appeared on Syracusan coins, was unknown in Greece proper. To the period 411-404 B.C. was allotted the class having the symbols palmette and dolphin on the reverse. Class IX. (404-394 B.C.) is distinguished by the dolphin on the reverse and varying annual symbols. Prof. Oman also discussed the position of the small series of staters having as obverse type Pegasus standing tied up to a large ring, and proposed to place them about 421-414 B.C., suggesting that the type was emblematic of the peace of Nicias in 421 B.C. This Paper is printed in Vol. IX. pp. 333-356.

DECEMBER 16, 1909.

SIR HENRY H. HOWORTH, K.C.I.E., F.R.S., F.S.A., President,
in the Chair.

The minutes of the ordinary meeting of November 18 were read and confirmed.

Mr. Edwin L. Arnold was elected a Fellow of the Society.

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

1. Journal of Hellenic Studies. Vol. xxix., Pt. 2.
2. Journal of the Royal Society of Antiquaries of Ireland. Vol. xxxix., Pt. 3.
3. Medalllic Illustrations of the History of Great Britain and Ireland. Plates ci.—cx. From the Trustees of the British Museum.
4. American Journal of Numismatics. Vol. xliii., No. 4.
5. Notices extraites de la Chronique de la Revue Numismatique. 3^{me} trim., 1909. From A. Blanchet.
6. Catalogue du Cabinet Numismatique de la Fondation Teyler à Harlem. From the Directors.
7. Y^e Olde Mint (Philadelphia). By F. H. Stewart. From the Author.

Mr. Thomas Bliss exhibited some English farthings, including two of the Commonwealth in brass, and a third in copper (a pattern with the initial of Rawlins under the centre pillar); a farthing of Cromwell, and four others in pewter of Charles II.

Mr. A. H. Baldwin showed two unpublished Roman coins: a denarius of Septimius Severus with reverse type Veritas, and a second brass of Jovian with reverse type Anubis on dog.

Dr. Codrington exhibited, and read notes on, a series of copper coins of Makalla in Hadramut, lent by Mr. D. F. Howorth.

Mr. H. A. Grueber read a Paper on "The Silver Coinage of the Roman Republic." He explained the reasons which have enabled modern numismatists to ascribe the introduction of a silver currency to Rome to 269-8 B.C., and showed that the coins which have been attributed by some to the time of the kings are forgeries, probably of the eighteenth century. Mr. Grueber next discussed the origin of the scruple standard, the various changes which took place in the silver standard and officially-issued plated coins, and concluded by dealing with the origin of the various denominations, the development and historical significance of their types. Mr. Percy H. Webb exhibited a series of Roman silver coins to illustrate the Paper.

JANUARY 20, 1910.

HORACE W. MONCKTON, Esq., F.G.S., F.L.S., Vice-President,
in the Chair.

The minutes of the ordinary meeting of December 16 were read and approved.

Mr. J. T. Bennett-Poë, M.A., was elected a Fellow of the Society.

The following Presents to the Society were announced and laid upon the table:—

1. Numismatic Circular. Vol. xvii. From Messrs. Spink & Son.
2. Coins of Magna Graecia. By Rev. A. W. Hands. From Messrs. Spink & Son.
3. Revue Belge de Numismatique, 1910. Pt. 1.
4. Rivista Italiana di Numismatica, 1909. Pts. 3 and 4.
5. Bulletin de la Société des Antiquaires de l'Ouest, 1908 and 1909, Pt. 1.
6. Bulletin of the Archaeological Institute of America. No. 1.

7. *Revue Suisse de Numismatique*. Vol. xv., Pt. 1.
8. Proceedings of the Society of Antiquaries of London. Vol. xxii., No. 2.
9. Publications de la Section Historique de l'Institut de Luxembourg. Vols. liv., lvi., lvii.
10. Monatsblatt der numismatischen Gesellschaft in Wien. No. 317.
11. Report of the Government Museum, Madras, 1908-1909.
12. *American Journal of Archaeology*. Vol. xiii., No. 4.
13. Deux deniers Lossains frappés à Hasselt. By Vicomte B. de Jonghe. From the Author.
14. Portraiture of our Stuart Monarchs on their Coins and Medals. Pt. 1. By Miss Helen Farquhar. From the Author.

Mr. H. A. Parsons exhibited a heavy half-groat of Edward IV, struck at Dublin, supposed to be unique; Mr. W. E. Marsh, a light groat of Henry VI; and Mr. Monckton, six Roman coins of the second century A.D., selected to illustrate the relation of the bronze to the copper coinage of the period.

Mr. L. A. Lawrence showed a series of gold and silver coins of Edward IV and Henry VI to illustrate the Paper of the evening.

Mr. F. A. Walters read a Paper on "The Restoration Coinage of Henry VI, 1470-71." After a short historical introduction, he proceeded to discuss the gold coinage of the period. On the restoration of Henry VI the want of a gold coin corresponding to the reduced silver coinage was felt, and the noble was probably considered to be too closely identified with the house of York. The angel—the issue of which had actually been ordered in 1465, though very few specimens appear to have been struck—was adopted as the gold coin of Henry VI. Henry's badge of the fleur-de-lis and his initial

replaced Edward's badge of the rose and sun, while the name of France was added to his titles. The chief new mint-marks were the plain cross (pierced or unpierced), and a rather large cross pattée. Angels were struck in large quantities at the London Mint, and can be arranged in four classes according to the legends. Half-angels or angelets were also struck, similar to the angels, but having the reverse legend O CRVX AVE SPES VNICA. In silver every denomination from the groat to the farthing is now known of the London Mint, though the groat alone can be called common. The silver coinage closely resembles Edward IV's, except in the name. The mint-marks on the groats are the cross pattée, the short cross fitchée, the plain cross (pierced or unpierced), and the fleur-de-lis. At the Bristol Mint several varieties of angel were issued, which Mr. Walters suggested were struck from dies made in Bristol, and not in London, as usually supposed. The groat is the only silver coin known of this mint, and eleven varieties were enumerated, giving a number of mint-marks differing from the London Mint.

Mr. Walters discussed Mr. Packe's suggestion that certain gold coins should be attributed to the York Mint, though they do not bear the E which one would expect, and concluded that this attribution was correct. The groat, which is common, and the half-groat, of which two specimens are known, were also struck at York. Archbishop Nevill struck pennies at the Archiepiscopal Mint during this period, having the lis and usual episcopal marks.

Among those who took part in the discussion was Mr. Lawrence, who pointed out the danger of laying too much stress on mint-marks, slight varieties of legends, &c., and held that Edward IV must have struck many more angels than we know of, so that it was impossible to say that the noble was characteristic of Edward IV, or the angel of Henry VI. He also regarded it as certain that the dies for

the provincial mints were engraved in London, and not at those mints. This Paper is printed in Vol. X. Part II. pp. 117-145.

FEBRUARY 19, 1910.

H. A. GRUEBER, Esq., F.S.A., Vice-President, in the Chair.

The minutes of the ordinary meeting of January 20 were read and approved.

Mr. R. Sutcliffe and Mr. W. I. Williams were elected Fellows of the Society.

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

1. Transactions of the Japan Society. Vol. viii.
2. Monatsblatt der numismatischen Gesellschaft in Wien. No. 318.
3. Canadian Antiquarian and Numismatic Journal. Vol. vi., No. 4.
4. Académie royale de Belgique. Bulletin de la Classe des Lettres. Nos. 9, 10, 11.
5. Revue Numismatique, 1909. Pt. 4.
6. Sitzungsberichte der numismatischen Gesellschaft zu Berlin.
7. Proceedings of the Society of Antiquaries of Scotland. Vol. xliii.
8. La Jambe Monnaie de Sinope. By A. Blanchet.
9. Une Nouvelle Théorie relative à l'expédition des Cimbres en Gaule. By A. Blanchet.
10. Notices extraites de la Chronique de la Revue Numismatique. By A. Blanchet. Nos. 8, 9, 10. From the Author.

Mr. F. A. Walters exhibited a series of gold and silver coins of Henry VI described in his Paper on "The Restoration Coinage" of that king; Mr. Horace W. Monckton, six

thalers of Saxony and Bohemia of the sixteenth century, to illustrate the portraiture of the period; and Mr. T. Bliss, a fine set of nine pattern farthings of Charles II in silver, bronze, and pewter.

The Rev. A. W. Hands read a Paper on "Juno Moneta," in which he gave an account of an ingenious theory of the etymology of *moneta* proposed by Dr. Assmann in a recent volume of *Klio*. There are certain difficulties in accepting the traditional etymology of the important word. Dr. Assmann suggests that it is a corruption of *machanath*, "camp," the legend on the coins of Carthage of the fourth century B.C., which were no doubt well known to the Romans, and may have been called *machanaths*, which ultimately became corrupted to *moneta*. Analogies for the loss of the guttural are to be found in the Septuagint. *Machanath*, meaning "camp," would be associated with war and also with Juno, the warlike goddess, the spear-holder. Money being the sinews of war, the temple of Juno was a peculiarly fitting place for the mint. The epithet *Moneta* clung to Juno, and, from a false etymology from *moneo*, gave rise to the stories which have been handed down in support of the traditional etymology. Mr. Hands argued that the Roman conception of Juno was essentially that of a warlike goddess, otherwise vows would not have been made to her on the battle-field. The conception of Juno, the goddess of marriage, &c., grew up later.

Mr. J. Allan said that it was improbable that these coins were known as *machanaths*, as the inscription would have been unintelligible to the Romans. It was also impossible for *machanath* to have become *Moneta*, the argument from the Septuagint not being a justifiable analogy. Even if the guttural were lost, the short final *a* could never become *ē*. *Moneta* was an archaic and legitimate formation from *moneo*, analogous to *Vesta* and *Morta*. The *-e-* of the second syllable was really evidence of its antiquity. Even

if we disregard the Roman explanation of the epithet, Juno might well be called the "adviser" in her capacity as Juno Pronuba. Juno was primarily the goddess of women and marriage, and not a warlike goddess.

Mr. Grueber also disagreed with Dr. Assmann's theory; and Mr. Webb emphasized the difficulty of finding instances of *moneta* meaning coin or mint in classical times.

MARCH 17, 1910.

SIR HENRY H. HOWORTH, K.C.I.E., F.R.S., F.S.A., President,
in the Chair.

The minutes of the ordinary meeting of February 17 were read and confirmed.

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

1. Monatsblatt der numismatischen Gesellschaft in Wien. No. 319.

2. American Journal of Numismatics. Vol. xlv., No. 1.

3. Académie royale de Belgique. Bulletin, No. 12, and Annuaire, 1910.

4. Journal of the Royal Society of Antiquaries of Ireland. Vol. xxxix., Pt. 4.

5. Bulletin de la Société des Antiquaires de l'Ouest, 1909. Pt. 2.

6. Bulletin of the Archaeological Institute of America. Vol. i., Pt. 2.

Dr. Arthur J. Evans exhibited a fine stater of Elis of the fifth century B.C., obverse type eagle's head to left,

having the letters ΔA beneath clearly legible, confirming it to be the work of Daedalus of Sicyon, which has been doubted; a specimen of the stater of Elis with obverse type Victory seated, which was taken by Wyon as the design for his Waterloo medal; also a specimen of the Waterloo medal, and a stater of Terina with a similar Victory on the reverse.

Mr. F. A. Walters showed a rare groat of the third coinage of Henry VIII, having the bust to right in a tressure similar to that on the second coinage; and Mr. L. A. Lawrence, a fine series of short-cross pennies, illustrating typical and crucial parts of the series.

Mr. G. C. Brooke read a Paper on "Chronology in the Short-Cross Period." He maintained that there were no short-cross pennies of the second class of the Chichester Mint. Those at present attributed to this mint were to be attributed to the York and Canterbury Mints, on the ground that their attribution to Chichester violated the principle that the reverse inscription sufficed to identify the moneyer responsible for the purity of the coin. The York coins had been attributed to Chichester owing to the confusion of C and E in the characters of the period, and the Canterbury coins owing to failure to notice that the I which frequently ended reverse inscriptions ought to be interpreted as the first stroke of another letter, and so in this case CI should be interpreted CA. Mr. Brooke believed 1189 to be too early a date for the commencement of Class II., and preferred 1194, on the ground of Richard's absence from England, and consequent neglect of domestic affairs before that date. The Lichfield coin struck in 1190 he assigned to Class I.; and with regard to the Canterbury Mint he held that Archbishop Baldwin did not avail himself of the privilege of reopening his mint, which was granted to him in December, 1189, owing to his hasty departure for the Holy Land in March of the following year. Mistakes

had been made in dating accounts, writs, charters, &c., of the reigns of Richard I and John, owing to a misunderstanding of the mode of reckoning Exchequer and regnal years; the Chichester Mint, for example, was reopened in 1205, and not in 1204, as had been previously held. There was strong evidence to show that the reformation of the coinage in the reign of John took place in 1205, and not in 1208, the great summons of moneymen and other mint officials to appear in January, 1208, being issued with a view to checking the circulation of counterfeit coins. This view was consistent with the absence of Chichester coins of Class II. and the reopening of that mint in 1205.

The President, Mr. H. A. Grueber, and Mr. L. A. Lawrence also spoke; the last-named pointed out that no strict lines of demarcation could be drawn between the classes. He agreed that there are no coins of Chichester of Class II., but disagreed with the change in date of the beginning of Class II. from 1189 to 1194; the Lichfield coin was of Class II., and was issued in 1190. Mr. Brooke's proposal to change the date of the reformation of the coinage from 1208 to 1205 seemed reasonable.

APRIL 21, 1910.

HERBERT A. GRUEBER, Esq., F.S.A., Vice-President,
in the Chair.

The minutes of the ordinary meeting of March 17 were read and approved.

Rev. Edgar Rogers was elected a Fellow.

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

1. The Royal Society. By Sir W. Huggins. From the Author.
2. Mémoires de la Société des Antiquaires du Nord, 1908-1909.
3. Rivista Italiana di Numismatica. Pt. 1, 1910.
4. Monatsblatt der numismatischen Gesellschaft in Wien. Nos. 320-321.
5. Annual Report of the Smithsonian Institute, 1908.
6. Report of the United States National Museum, 1909.
7. Proceedings of the Royal Irish Academy. Vol. xxviii., No. 192.
8. The Canadian Antiquarian and Numismatic Journal. Vol. vii., No. 3.

Mr. T. Bliss exhibited six shillings of Charles I of the Tower Mint, with mint-marks *lis*, negro's head, plume (two varieties), bell, and harp; Mr. F. A. Walters, a specimen of the denarius, mentioned by Dion Cassius, struck in 42 B.C. by M. Junius Brutus, with reverse *pileus* and two daggers, and inscription, *EID. MAR.* referring to the assassination of Julius Caesar; and Mr. L. A. Lawrence, the second known specimen of the silver penny of Wulfred, Archbishop of Canterbury, with reverse legend *DOROVERNI CIVITATIS*, one of the few Saxon coins without the moneyer's name.

Dr. A. J. Evans showed the Roman medallions and coins mentioned in his Paper; and Mr. P. H. Webb, a fine series of coins of Julian II to illustrate his article.

Dr. A. J. Evans read a Paper on "Some Roman Medallions and Coins" in his collection. The pieces described were: (*a*) a bronze medallion of Clodius Albinus; reverse, Fortune seated left, *FORT. REDVCI. COS. II.*, struck in 194 A.D., when the

Senate made Albinus Consul for the second time; (*b*) a ten-aureus of Diocletian struck at Alexandria for the Decennalia in 293 A.D.; reverse, Jupiter enthroned with eagle at his feet, IOVI CONSERVATORI. in exergue ALE.; (*c*) the third example known of the double aureus of Constantine I. with reverse, view of the city of Treves, GLORIA. AVGG, probably struck in 328-9 A.D., when Constantine was in Treves; (*d*) an aureus of Gratian commemorating the accession of Valentinian II, reverse Gratian and Valens enthroned, between them the young Valentinian II, above his head a shield inscribed VOT. V. MVL. X., in exergue ANTS. Dr. Evans discussed the question of the denominations of Roman medallions; showed that the piece of Diocletian described was a ten- (not, as hitherto thought, an eight-) aureus piece; and suggested that the bronze medallions were also struck to a standard, the piece of Albinus being a piece of fifteen asses. This Paper is printed in Vol. X. Pt. II. pp. 97-109.

Mr. Percy H. Webb read a Paper on "The Coinage of Julian II." After a sketch of Julian's career, he proceeded to discuss the coins, which were shown to fall into three classes: (*a*) coins with beardless bust and title of Caesar, struck before 360 A.D., when he received the title Augustus; (*b*) a small class of coins with diademed, usually beardless bust and title Augustus, covering the period from shortly before the Quinquennalia of 360 A.D., to shortly after the death of Constantine II; (*c*) coins with full-bearded bust and title Augustus, covering the remainder of the reign. Mr. Webb showed that there is virtually no trace of pagan types on coins which can be definitely assigned to Julian, and that he seems to have been as careful not to hurt Christian susceptibilities as he tells us he was. With regard to the anonymous issues with personifications of Sarapis and Isis, Mr. Webb supported the traditional attribution to the time of Julian, and suggested that they were unofficial issues of Alexandria.

He showed that the Isis on these coins was not, as hitherto supposed, a portrait of Helena, and that the bull which occurs on the reverse of some coins bearing Julian's names is not Apis.

In the discussion on the Papers, Mr. Grueber, the Rev. Mr. Hands, Mr. Webb, and Dr. Evans took part.

MAY 26, 1910.

HERBERT A. GRUEBER, Esq., F.S.A., Vice-President, in
the Chair.

The ordinary meeting appointed to be held on the 19th May was, by order of the Council, postponed to this day.

The minutes of the ordinary meeting of April 21 were read and approved.

Mr. Frederick J. Brittan and Mr. M. Crawford Burkitt were elected Fellows of the Society.

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

1. *Appunti di Numismatica Romana*. No. xciv. By Francesco Gnecchi.
2. *Revue Belge de Numismatique*. 1910, Pt. 2.
3. *Académie royale de Belgique. Bulletin*, No. 12, 1910.
4. *Proceedings of the Numismatic and Antiquarian Society of Philadelphia*. No. 25.
5. *Les jetons représentant les Métamorphoses d'Ovide*. By E. Demole.
6. Medal commemorating the Tercentenary of the Founding of Quebec. From the National Battle-fields Commission.

7. American Journal of Archaeology. Vol. xiv., No. 1.
8. Revue Numismatique. 1910, Pt. 1.
9. Journal of the Royal Society of Antiquaries of Ireland. Vol. xl., Pt. 1.
10. Journal of Hellenic Studies. Vol. xxx., Pt. 1.
11. Revue Suisse de Numismatique. Vol. xvi., Pt. 1.
12. Monatsblatt der numismatischen Gesellschaft in Wien. No. 322.
13. Proceedings of the Cambridge Antiquarian Society. Vol. xv.
14. I diversi Stili nella Monetazione romana. Pts. vi. and vii. By L. Laffranchi. From the Author.
15. Chronique de Numismatique Celtique.
16. Notices extraites de la Chronique de la Revue Numismatique. Pt. 1, 1910.
17. Les dernières Monnaies d'or des Empereurs de Byzance.
18. Les "Sous Gaulois" du V. Siècle.
19. Plombs de Caen, de Louviers et d'Évreux.
Nos. 15-19 by A. Blanchet, and presented by him.

Mr. Leopold P. G. Messenger was nominated to represent the Fellows of the Society at the next audit of accounts of the Society.

The Society then resolved itself into a Special Meeting, when the following address to His Majesty the King was passed, on the motion of the Chairman:—

The Royal Numismatic Society,
22, Albemarle Street, London, W.

To the King's Most Excellent Majesty.

The Humble Address of the President, Council, and Fellows of the Royal Numismatic Society.

MAY IT PLEASE YOUR MAJESTY,

We, the President, Council, and Fellows of the Royal Numismatic Society in Special Meeting assembled, beg

leave humbly to approach Your Majesty with the expression of our deep sorrow and respectful sympathy at the great and irreparable loss which has befallen Your Majesty and the Royal Family in the death of our beloved and venerated Sovereign and Patron King Edward VII. His unceasing sympathy with all classes of his people, the kingly wisdom with which he guided the affairs of the nation, and his influence in maintaining the peace of the world, will cause his memory to be ever cherished by this Society.

We desire humbly at the same time to express our earnest hope that Divine Providence may in its Goodness and Mercy be pleased to bless Your Majesty with health and length of days, and that Your Majesty's reign over a loyal and grateful people may be long and glorious.

The sympathetic interest which Your Majesty has constantly manifested in all that concerns the progress of Antiquarian Research and Historical Study encourages us to hope that Your Majesty will be graciously pleased to continue to our Corporate Body that beneficent Patronage which it enjoyed at the hands of Your Majesty's Royal Father since the granting of the Charter in the year 1904.

The following address to Her Majesty Queen Alexandra was also passed, on the motion of the Chairman:—

To Her Most Excellent Majesty Queen Alexandra.

The Humble Address of the President, Council, and Fellows of the Royal Numismatic Society.

MADAM,

We, the President, Council, and Fellows of the Royal Numismatic Society in Special Meeting assembled, beg leave humbly to profess our sorrow at the great and irreparable loss which has befallen Your Majesty and the Royal

House and the Nation in the death of our beloved and venerated Sovereign Lord King Edward VII., our Patron, whose memory will ever be faithfully cherished by a grateful people.

JUNE 16, 1910.

ANNUAL GENERAL MEETING.

HERBERT A. GRUEBER, Esq., F.S.A., Vice-President,
in the Chair.

The Minutes of the Annual General Meeting of June 17, 1909, were read and confirmed.

Mr. E. Shepherd and Mr. H. Symonds were appointed scrutineers of the ballot for the ensuing year.

Mr. Alexander Goodall and Professor Harvey Porter were elected Fellows of the Society.

The following Report of the Council was then read to the meeting:—

LADIES AND GENTLEMEN,—The Council have again the honour to lay before you their Annual Report as to the state of the Royal Numismatic Society both numerical and financial.

It is with deep regret that they have to announce the death of the following four Fellows:—

Sebastian Evans, Esq., LL.D.

Mons. J. P. Lambros.

J. F. Neck, Esq.

Thomas Wakley, Esq., L.R.C.P.

The Council also much regret to announce the resignation of the following Fellows:—

G. B. Bleazby, Esq.
Miss E. C. Clarke.
Captain J. R. P. Clarke.
A. W. Daughlish, Esq.
N. Heywood, Esq.
A. T. Martin, Esq.
T. C. Martin, Esq.

They have also to announce that the name of Mr. G. C. Adams has been removed from the list of Fellows under Rule 15.

On the other hand, the Council have much pleasure in recording the Election of the following fifteen Ordinary Fellows:—

Edwin L. Arnold, Esq.
Miss Agnes Baldwin.
J. T. Bennett-Poë, Esq., M.A.
Colonel J. Biddulph.
Frederick J. Brittan, Esq.
Miles Crawford Burkitt, Esq.
Alexander Goodall, Esq.
Stephen K. Nagg, Esq.
Herbert Nickiewicz, Esq.
F. W. Voysey Peterson, Esq.
Professor Harvey Porter.
Rev. Edgar Rogers.
Mons. Michel Soutzo.
Robert Sutcliffe, Esq.
W. I. Williams, Esq.

The number of Fellows is, therefore :—

	Ordinary.	Honorary.	Total.
June, 1909	291	22	313
Since elected	15	—	15
	<hr/>		
	306	22	328
Deceased	4	—	4
Resigned, &c.	8	—	8
	<hr/>		
June, 1910	294	22	316
	<hr/>		

The Council have to announce that they have awarded the Medal of the Society to Hofrat Dr. Friedrich Edler v. Kenner, Keeper of the Imperial Coin Cabinet in Vienna, for his researches in ancient archaeology and numismatics, especially in the Roman series.

The Hon. Treasurer's Report, which follows, was then submitted to the Meeting :—

STATEMENT OF RECEIPTS AND DISBURSE-
FROM JUNE, 1909,

Dr. THE ROYAL NUMISMATIC SOCIETY IN ACCOUNT

	£	s.	d.	£	s.	d.
<i>Cost of Chronicle—</i>						
To Messrs. Clowes and Sons, Ltd., for printing <i>Chronicle</i> ,						
.. Part I., 1909	49	3	3			
.. Part II., 1909	67	12	4			
.. Part III., 1909	40	15	4			
				157	10	11
.. University Press (Plates for <i>Chronicle</i>)	27	6	0			
.. Ditto (ditto)	27	5	0			
.. Ditto (ditto)	33	1	6			
				87	12	6
.. Artist Illustrators, Ltd. (En- graving Coins)	1	3	2			
.. Ditto (ditto)	3	0	3			
.. Ditto (ditto)	0	9	0			
.. Ditto (ditto)	12	4	0			
				16	16	5
.. F. Anderson, Drawing Coins	1	0	0			
.. Ditto (ditto)	1	0	0			
.. Ditto (ditto)	1	10	0			
				3	10	0
				265	9	10
<i>Books, &c.—</i>						
To C. Fox (Bookbinding)	7	4	8			
.. Ditto (ditto)	4	0	6			
.. Messrs. Williams and Norgate (Books)	1	1	10			
.. Messrs. Hachette and Co. (Books)	0	3	9			
					12	10
<i>Sundry Payments—</i>						
To Rent, Royal Asiatic Society				30	0	0
.. Refreshments, &c.				11	0	6
.. Insurance Premium					0	15
.. Engraving Medal					0	4
.. Sundry Petty Payments					8	17
.. <i>Research Fund</i> (Searching at Record Office)					3	13
						332
				11	11	1
.. Balance (<i>Research Fund</i>)	13	12	4			
.. " (General)	298	18	10			
				312	11	2
				£645	2	3

MENTS OF THE ROYAL NUMISMATIC SOCIETY,
TO JUNE, 1910.

WITH PERCY H. WEBB, HON. TREASURER.

£s.

	£	s.	d.	£	s.	d.
By Balance in hand (General)	272	11	11			
„ Montagn Bequest, transferred to Research Fund	10	13	7			
	<hr/>			283	5	6
„ Subscriptions, 234 members at £1 1s. (less loss on foreign cheques)	245	12	11			
„ Entrance Fees	11	11	0			
	<hr/>			257	3	11
„ Subscriptions to Research Fund				4	14	6
„ Sale of <i>Chronicle</i>				65	3	5
„ Dividends on £800 London & North-Western Railway Preference Stock, 4 ^o / _o —						
£50 Research Fund	1	17	9			
£750 General Fund	28	6	3			
	<hr/>			30	4	0
„ Return on Income Tax				4	10	11

£645 2 3

PERCY H. WEBB, *Hon. Treasurer.*

Audited and found correct,

THOS. BLISS,
LEOPOLD G. P. MESSENGER, } *Hon. Auditors.*

June, 1910.

The Reports of the Council and of the Treasurer having been adopted, Mr. Grueber presented the Society's Medal to Mr. Allan, to be forwarded to Dr. Friedrich Edler v. Kenner, who was unable to be present, and addressed him as follows:—

MR. ALLAN,—

I have much pleasure in handing to you the Medal of this Society for transmission to Dr. Friedrich Edler von Kenner, Director of the Imperial Cabinet of Coins and Antiquities in Vienna. The Medal has been awarded to Dr. Kenner by the Council in recognition of his long and important services to ancient numismatics and archaeology.

The duty which has fallen on me, in the absence of the President, is particularly pleasing, as the Society is paying a tribute to one who may well be called the *doyen* of numismatists, and whose name, with the exception of that of Dr. Imhoof-Blumer, has been the longest on our list of Honorary Fellows, Dr. Kenner having been elected in 1878.

So far back as 1858 Dr. Kenner began to give to the world of archaeologists the benefit of his knowledge, as it was in that year that he published his work on Terra Cotta Lamps in the Imperial Cabinet. This work, which was issued over half a century ago, shows the intimate acquaintance of the writer with his subject, and has since been considered one of the text-books of its class. Ten years later, in conjunction with his colleague Dr. Von Sacken, Dr. Kenner described the contents of the Imperial Collection of Coins and Antiquities at Vienna. It is a work which deals with a great variety of objects—Ancient Sculpture, Inscriptions, Ceramic and Toreutic Art, Bronzes, Coins, Gems, and various objects of similar classes of the Renaissance period.

From that time Dr. Kenner's writings have been very numerous and of wide scope, and his contributions to the *Numismatische Zeitschrift*, the organ of the Numismatic Society of Vienna, of which he was one of the founders in

1870, show what an active life he has led. To us here he is best known for his contributions to Roman numismatics, amongst which I would mention his work on Roman Medallions, which was published in parts in the *Jahrbuch* from 1883 to 1890, and to which he subsequently issued a series of plates. To this work he has added many contributions as well as articles on Greek numismatics, and useful records of finds of various classes. It is in acknowledgment of these services to the science of numismatics that the Society has awarded to Dr. Kenner its Medal. In transmitting the Medal to Dr. Kenner, I will ask you to convey to him not only our gratitude for his past achievements, but also our hope that his labours in the future may produce equally valuable and satisfactory results.

In accepting the Medal of the Society on behalf of Dr. Kenner, Mr. Allan expressed regret that Dr. Kenner was unable to be present, and read the following letter from him to the meeting :—

Vienna, June 4th, 1910.

DEAR SIR,—

I have the honour to announce the receipt of your letter of the 30th May, and to declare that I feel myself most highly honoured by being awarded the Silver Medal of the Royal Numismatic Society, and I accept it with sincerest thanks.

Will you kindly convey to the Council of the Royal Numismatic Society, whose great energies I have always admired, my expressions of the deepest gratitude, and accept my best thanks for your congratulations.

Believe me,

Yours most sincerely,

DR. FRIEDRICH EDLER VON KENNER,

K. u. K. Hofrat i. R.

J. Allan, Esq.,

Secretary to the Royal Numismatic Society.

Mr. Grueber then delivered the following Address :—

VICE-PRESIDENT'S ADDRESS.

When it was notified to me, only a few days ago, that our President would not be well enough to be present here this evening, my first inclination was that there should be no Annual Address to the Fellows. On subsequent reflection it seemed to me, however, that a year should not be allowed to pass without some mention of the Society's work, and I have therefore at the last moment put together a few notes, which I fear will throughout bear the stamp of having been prepared in great haste and without much reflection. These notes will be very short, and of a somewhat superficial character. I will therefore ask for your indulgence, and must beg you not to consider what I have to say quite in the nature of an Address.

You have heard from our Treasurer that the financial state of the Society is satisfactory. Our income is a limited one, but what we spend it on I think bears good fruit. With the exception of rent, which is not a serious item, nearly all our income goes to the publishing of the *Numismatic Chronicle*. This is, as I am sure you will agree, the most satisfactory way of using it. The duties of the officers of the Society are purely honorary, and we are grateful for the time and patience which they bestow upon them.

I am glad to hear from the Secretary, that there has been a slight increase in the number of our Fellows. There have been only four deaths since this time last year; but, unfortunately, no less than seven resignations. Those who have passed away are gone for ever, but of those who have resigned their Fellowship, there is always a hope that on a future occasion some of them will return to the Society.

The four Fellows whose decease we deplore were all remarkable men in their particular vocations.

The first I have to mention is Dr. Sebastian Evans, who died on December 18 last. He was, as no doubt you are all aware, the brother of Sir John Evans, our late and much-esteemed President. So far as I know, Dr. Evans was not a numismatist, though he had been a member and Fellow of this Society since 1861. He was, however, a man of conspicuous abilities, and was well known as an author, a poet, and a journalist. He was also a keen politician, and took an active part in the organization of the Conservative Party in connexion with the National Union of Conservative Associations. He contested Birmingham in the Conservative interest in 1868, but without success. It was in the pursuit of journalism, however, that he won most fame in his early days. In 1867 he undertook the editorship of the *Birmingham Gazette*, which he held for three years, when he was called to the bar and joined the Oxford circuit. Four years later he returned to his former vocation, and, in concert with Lord Percy and Mr. W. H. Smith, he started the *People*, which he edited for three years. His subsequent life was one of great activity, and he occupied himself to an increasing extent in matters historical, archaeological, artistic, and literary. Amongst his large circle of friends he was known as a no mean executant in various fields of art, from oils to miniatures and carving. It was in connexion with this side of his varied talent that he made his only contribution to the *Numismatic Chronicle* in 1861. The subject on which he wrote was "Modern Art and the New Bronze Coinage." He died at Canterbury, where he had resided for many years, and where he was much esteemed by the inhabitants of that archiepiscopal city.

Mr. J. F. Neck was one of a generation of English numismatists, whose number has of late greatly decreased. His association with this Society goes back to 1864, and his early years were marked by singular numismatic activity, combined with great modesty and gentleness. His first contribution to the *Numismatic Chronicle* was on an

Aberystwith half-crown of Charles I, which showed a connexion between the mint of that city and the one established at Shrewsbury. This paper was published in 1866. Two years later he began his series of articles on the Coinages of Henry IV, V, and VI, which threw much light on the monetary history of those reigns, and which have served as the basis of subsequent investigations. The contents of these articles and the views expressed by Mr. Neck are so well known that it is not necessary for me to enter into any details. The subject aroused a good deal of interest amongst English numismatists, and produced kindred papers from Archdeacon Pownall, Mr. Longstaffe, and others. The whole subject was summed up and amplified in 1871, when Mr. Neck set out in complete order the coinages of those reigns. It was in that year that the Stamford hoard was unearthed, and the first year of my service in the Medal Room. It was when registering and incorporating the coins from that find that I made the acquaintance of Mr. Neck, who volunteered to go over my work, as I was then a novice, and to see that I had classified the coins correctly. It was my first piece of work, and I am glad to say it passed his criticism. Not long after this Mr. Neck was unfortunate in business, through no fault, I believe, of his own, and, being of a very sensitive nature, his attendance at our meetings gradually slackened, and it is now many years since we have had the pleasure of his presence. Mr. Neck formed a considerable collection of coins, which, I believe, passed in its entirety into the possession of the uncle of our Treasurer. Mr. Neck's death took place on April 2 last.

Mr. J. P. Lambros was the well-known dealer in coins and antiquities at Athens. His only numismatic work, so far as I am aware, was a treatise on the coinage of Peloponnesus. He and his brother, and their father before them, were long acquainted in business transactions with the British Museum, and it was from them that for many years the National

Collection obtained most of its more important Greek coins. Mr. Lambros died quite unexpectedly on May 20, 1909, in his 66th year.

Mr. Thomas Wakley was one of our more recent Fellows, as he did not join the Society till 1902. He was a somewhat frequent attendant at our meetings. Though chiefly occupied in matters connected with the medical profession, in his capacity as editor of the *Lancet*, he devoted a good deal of time to forming a collection of English coins, which consisted chiefly of crown pieces and coins used in their place in all parts of the British Dominions. The collection was dispersed by Messrs. Sotheby in December last, and it contained many exceptional and rare pieces, amongst which were the crown of Henry VIII, the Oxford crown, and the Petition crown; also half-crowns of Philip and Mary, and Elizabeth. Dr. Wakley died on March 6 of last year.

Turning to the labours of the individual Fellows of the Society, I think you will find that the pages of the *Numismatic Chronicle* contain many articles of considerable merit and importance.

In Greek numismatics we have had, I am glad to say, a revival, and they show that our old friends have not deserted us for the benefit of other Societies whose chief work is mainly outside the sphere of numismatics.

Mr. Michael P. Vlasto, to whose pen we are indebted for several previous papers, has given an interesting account of a find of coins which were unearthed on the ancient site of Tarentum, and which he has ascribed to the time of the Hannibalic occupation, which extended over a very short period, *circa* 212-209 B.C. The find consisted of 114 staters and half-staters, not only of Tarentum itself, but also of Metapontum and Sicily, the last struck in that island by the Carthaginians. We have in this hoard a fair sample of the coinage which was current at Tarentum at this particular time; and as we are able to fix the burial of the hoard

within a period of four years at the outside, it forms a basis for the classification of the coinage of the previous and succeeding years. The hoard confirmed in a somewhat remarkable way the classification proposed by Dr. Arthur Evans, in his *Horsemen of Tarentum*.

In an article on the coinages of Antigonus I and Demetrius Poliorcetes of Macedon, Mr. C. T. Seltman has proposed a new chronological classification of their issues, dating some back to the period previous to the Battle of Salamis, 306 B.C., when hitherto it has been supposed that Antigonus only issued coins in gold and silver with the name and types of Alexander the Great. These coins bear the names of Antigonus and his son Demetrius without the title *βασιλεύς*, and Mr. Seltman therefore concludes that they must have been struck before 306 B.C., when Antigonus assumed the title of "king," and conferred it also on his son. Subsequent issues give to both the royal title. The classification proposed by Mr. Seltman seems to be quite borne out by numismatic as well as by historical evidence, and we have much pleasure in welcoming his first contribution to the pages of the *Chronicle*.

Professor Oman has returned to his previous study of the coinage of Corinth, a series as difficult to classify in chronological order as the contemporary issues of Athens, on account of the paucity of distinctive land-marks. The period over which the coins dealt with by Professor Oman extended was from *circ.* 470 to 394 B.C. Since Professor Oman published his paper on this subject in the *Corolla Numismatica* four years ago, he has met with many pieces which, whilst not disturbing his previous classification, made it possible to carry out a more minute subdivision. The series treated of opens with coins of the latest archaic type, which he assigns to *circ.* 470-451 B.C., in the production of which Corinth probably for commercial purposes appears to have followed the example set by Athens, that is, preserving its ancient style

and types. During the following twenty years the head of Pallas on the obverse undergoes some slight modifications, especially in the arrangement of the hair, which enabled Professor Oman to divide the coins into three separate classes, which he designates as first, second, and last transitional series. Special symbols also favour this subdivision. The two next periods, 433-431 and 431-414 B.C., are marked by the symbols of a murex shell and a palmette, the coins of the latter series being associated with the earlier years of the Peloponnesian War. In 414 B.C. Corinth formed an alliance with Syracuse, and to commemorate this event she placed on the coins a circle of dolphins, such as are met with on the coins of the latter city. The same process of classification has been carried out in the later issues, which take us just beyond the close of the fifth century. The changes in symbols are accompanied by marked differences in style, in the form of the head of Pallas, and also in variations of the position of the Pegasus. The order suggested by Professor Oman will, in our opinion, stand the most critical examination, and we shall greet with pleasure any further researches he may lay before the Society in connexion with the later coinages of that great commercial centre, Corinth.

In an article which is a reprint from *Le Musée*, Mr. E. J. Seltman maintains the genuineness of the well-known "Medallion" of Agrigentum in the Royal Collection at Munich, which had been called into question by M. A. Sambon in a previous article in that periodical, now, I believe, defunct. We need not enter into any detail of the arguments brought forward by Mr. Seltman; but we may remark that no one, so far as I know, ever believed the two specimens in the Bibliothèque Nationale at Paris to be authentic pieces. In my own knowledge I am aware that M. Babelon does not consider either of the coins to be genuine. The authenticity of the Munich piece must therefore rest on its own merits, and

we are of opinion that stronger evidence will have to be produced before it can be said to have lost the good character which hitherto has been accorded to it.

On Roman coins several interesting papers have been read at our meetings.

The Rev. A. W. Hands has called attention to Dr. Assmann's recent theory put forth in *Klio* as to the etymology of the word *Moneta* as applied to money. Dr. Assmann is of opinion that its derivation from *Juno Moneta* is not feasible, but that the word is a corruption of *Machanath*, i.e. *camp*, the legend found on some Carthaginian coins of the fourth century B.C., struck in Sicily, which were probably known to the Romans. The Roman divinity Juno appears to have been of a double character, like many others of the Roman Pantheon. As Juno of the Capitol she was regarded as the protectress of women, whence she received the surnames of *Pronuba*, *Matrona*, *Juga*, *Lucina*; but there was another Juno, who was the protectress of warriors, whose cult was centred on the Arx, the hill where now stands the Church of the Ara Coeli. This is the goddess of whom Dr. Assmann writes, and who, as he says, should be carefully distinguished from the Juno of the Capitol. Arguing from this, Dr. Assmann supposes that the epithet *Moneta* was given to the goddess because the mint was established in her temple, and that the word as applied to the coinage was not originally derived from the goddess as the "Averter of Evil," the "Adviser," the "Warner." The suggestion is certainly ingenious, but it is not altogether convincing, though it seems to be widely accepted by numismatists on the Continent. It seems to me that several points are raised which need more elucidation, viz. (1) etymologically, can *Moneta* be derived from *Machanath*? (2) Were the Romans so conversant with the money of the Carthaginians that they applied the word to their own coinage? and (3) Is the word *Moneta* of such antiquity in literature that it would be possible to attach to it such a

derivation? These are points which may probably be discussed at a later date.

Mr. G. C. Brooke has given an account of a hoard of Roman denarii which was discovered at Castle Bromwich, near Birmingham. The bulk of the coins extend over a period of just on a century, *i.e.* from the reign of Vespasian to that of Aurelius. There were many varieties which are not mentioned by Cohen. The interesting feature of the hoard was the presence of denarii of Mark Antony of the legionary type, which were struck during 32-31 B.C., probably at Ephesus, when he was preparing for the final struggle with Octavius, which took place at Actium. These coins are of base metal, so their circulation was not affected by the lowering of the standard, both as regards fineness of metal and weight, by Nero. In the finds which took place somewhat recently at Silchester, these coins of Antony were discovered with other denarii of the second and third centuries. Their frequency at the present time shows that the issue must have been a large one.

Another interesting paper has been provided by Dr. Arthur Evans on "Some Imperial Coins and Medallions." It is an account of some pieces recently acquired by him. The earliest piece is a medallion in bronze of Clodius Albinus, having on the reverse a figure of Fortuna Redux. There is no difficulty in fixing the approximate date of this medallion, as Albinus was made *Consul iterum* in 194 A.D., and he proclaimed himself Augustus early in 196 A.D. This medallion weighs 68.40 grammes, equal to fifteen *asses*; a similar one at Vienna weighs 61.7 grammes, equal to fourteen *asses*, and it is supposed by some that these pieces were intended to be current at these values. The unequal weight of the medallions throughout the Roman series seems to be pretty conclusive evidence that they were never intended for circulation as money. A still more remarkable piece is a medallion, or as Dr. Evans calls it a double-quinio, or ten-aureus piece of

Diocletian, with the reverse type of Jupiter seated. It was struck at Alexandria. The Museum has a similar piece, but with Jupiter standing, and struck at Nicomedia. In this case, again, we are able to fix the date of issue, as there exists a similar medallion but of smaller size, struck at Tarraco, which gives the fifth consulship of Diocletian, viz. 293 A.D. If other evidence is necessary, it is to be found in the style and portrait of Diocletian, which are those of the reformed coinage, which was instituted in 292 A.D. The piece must therefore have been issued in that or the following year: and as it is of the weight of 10 aurei it was probably current at that value.

An equally interesting piece is a double aureus of Constantine the Great, struck at Treves, and showing a view of the walls and gate of that city with the swift Moselle flowing in the foreground. It is scarcely possible to imagine a more picturesque scene in so small a compass. Any one who knows Treves can easily recognize the spot, though the buildings are now gone. The bridge, however, remains, but of a different age. A special interest is attached to Dr. Evans's coin in the fact that it is from the same die as the one in Paris, but with slight improvements in the form of decoration, showing that between the issues of the two pieces the dies were retouched and embellished. The Society may well congratulate Dr. Evans on the acquisition of these remarkable additions to his collection.

Our Treasurer, Mr. Webb, has again given us the benefit of his researches in Roman Numismatics, in communicating to the Society an article on the coinage of Julian the Philosopher.

He has arranged the coinage of this Emperor in three classes, which coincide with three epochs of his reign, each class also being provided with a different portrait—as a boy, then a youth, and then a man of full age. The chief object of the paper was, however, to discuss the date and issue of certain small bronze coins with the heads of Serapis and

Isis, and with the figures of other Egyptian divinities. In spite of his perversion to paganism, Julian seems to have been careful not to hurt the feelings of his Christian subjects by paganizing his coin-types. It is very evident, then, that these small coins must be looked on as forming a special issue, and as their types are Egyptian, there can be no hesitation in assigning them to Alexandria, and to the period of the murder of George of Cappadocia, and the restoration of Anastasius in 362 B.C. when Julian wrote to the Alexandrians, forgiving them the crime they had committed in consideration of their founder Alexander and of Serapis their tutelary divinity. It was probably to commemorate this event that these coins were issued.

The only other paper on Roman Numismatics to which I need refer is that on the Alexandrian coinage of Galba by Mr. Milne, in which he suggests a chronological arrangement for the billon coins of that reign.

Though a great portion of the pages of the *Numismatic Chronicle* has been devoted to ancient numismatics, the interests of those who are more concerned with English and British coins have not been neglected.

Mr. F. A. Walters has given us another of his exhaustive papers. This time it is on the coinage of Henry VI, struck during his short restoration. Being a series quite separate from that of his earlier reign, it was not included in his previous article on Henry VI. New denominations had since been issued, former ones were suspended, and the standard of both the gold and silver money had undergone a reduction. The article is a sequel to his recent one on the first coinage of Edward IV, and a prelude to Edward's later issues, which it is Mr. Walters' intention to attack next. The only mints in operation during this short period were those of London, Bristol, and York, the three principal royal ones. The only ecclesiastical mint was that of York, which may be accounted for by the circumstance that Nevill, the then Archbishop, was

made Chancellor; but his coins consisted only of pennies of recent identification. The gold issues were confined to the angel and half-angel, pieces introduced by Edward IV, but of which he had made but little use. Mr. Walters suggests that the new ryal was a little too Edwardian in character for Henry to have continued at once its production. For the chronology of the series Mr. Walters has taken chiefly as his guides, first, the mint-marks, and then style and fabric, and a careful perusal of his paper will show to what good purpose he has followed this course. It is very interesting to compare what Mr. Walters has written with what Ruding said in the middle of the last century. In the one case there is decision, in the other a strain of considerable uncertainty. Ruding admits that these light groats with the name of Henry must have been later than the fourth year of Edward IV; but as Henry VII coined of the same weight, and used the same mint-marks, it has not hitherto been possible to ascertain to which monarch these belong. This doubt has been dispelled by Mr. Walters, and he is to be congratulated on the successful result of his researches, which I believe he is able to confirm with further documentary evidence which has lately been brought to light.

Mr. G. C. Brooke, in a paper entitled "Chronology in the Short-Cross Period," has raised certain questions about the short-cross coinage, more as regards its chronology than its classification. He quite agrees with the divisions proposed by Sir John Evans, corresponding to the reigns of Henry II, Richard I, John, and Henry III; but he differs from him as to the precise dates to which two of these divisions are to be attributed. In the case of Richard I, whose coins are of Class II., the varieties in type were made to correspond with the date of his accession in 1189. This date Mr. Brooke considers too early, on the ground that Richard was absent from England, and that a consequent neglect of affairs at home took place, and also that it is

very doubtful if Baldwin, Archbishop of Canterbury, issued any coins before he left for the Holy Land. This occurred in March, 1190, the grant of coinage being received by him only five months before. Mr. Brooke therefore considers that the issue of Class II. did not begin till 1194, a date which is supported by coins of Lichfield and other places. He proposes another change in the case of Class III., the coins of which are assigned to John. It was suggested by Sir John Evans and others that this class originated in 1208, when a general summons was issued to all the moneyers and their workmen to appear at Westminster to take counsel respecting the making of the coinage and checking the circulation of counterfeit pieces. Mr. Brooke does not consider, from the wording of the summons, that these men were called together to consider the issue of a new coinage, but only to give advice for the prevention of existing evils in the form of counterfeits. He would therefore assign the introduction of Class III. to 1205, and in support of this date he cites the evidence of the coinage of the Chichester Mint which was reopened at that date, and began its new issue with pieces of this class.

Mr. Brooke has also made some pertinent remarks relating to the attribution of coins to certain mints from their legends. Wrong attributions have in many cases been made through the incompleteness of the legend for lack of space. For instance, there has often been confusion between L and E for want of the middle stroke; and the letter I, which frequently ended reverse inscriptions, ought to be interpreted as the first stroke of another letter, and so in this case CI should be interpreted CA. The paper throughout is full of other suggestions which are quite worthy of careful consideration, and we must therefore congratulate Mr. Brooke on his successful *débat* in the branch of numismatics which gives so much promise in the future.

From Dr. Parkes Weber we have been having a series of

articles on "The Aspects of Death and their Effects on the Living as illustrated by Medals, Engraved Gems," &c. Dr. Weber has classified his subject under no less than sixteen headings, but I am sure you will excuse me if I do not mention them individually. Dr. Weber shows considerable professional experience in discussing his subject from various aspects—scientific, metaphysical, and materialistic. The paper is full of research and scholarly reference, and it will no doubt be perused with considerable interest, not only by numismatists, but also by members of his own profession.

Mr. Hill has supplied two interesting additions to the English Series of Portrait Medals in a paper entitled "Two Italian Medals of Englishmen." These are of Sir John Cheke (1514-1557) the scholar and humanist, who did so much to revive Greek studies at Cambridge; and Richard White (1539-1611), son of Henry White of Basingstoke, jurist and historian, who was King's Professor at Douay, and subsequently "Magnificus Rector" of that University. The medal of Cheke was executed at the time that he was lecturing in Padua on Demosthenes, in 1555, and from its resemblance in style to one of Marco Mantova Benavides, it may be attributed to Martino da Bergamo. The medal of White was known to Armand, who published it under the title of "Ricardo Vito Basinstocchi;" the name being given on the medal as "Ricardus Vitus Basinstochius." White went also to Padua about 1565, when he was created a Doctor of Civil Law and Canon Law. This medal is signed by Ludovico Leoni, who had his home at Padua. As early medals of Englishmen are so rare, it is a matter of great satisfaction to have two new ones added to the list, and it is a subject for congratulation that these additions have been made by two of our Fellows, Mr. Max Rosenheim and Mr. Hill.

Amongst other papers which have appeared in the *Chronicle* I would mention the description and illustration of a cliché reverse from a touch-piece of Charles II, by Miss Helen

Farquhar ; and an account of the Coinage of Assam of the Ahom Dynasty, by Mr. Allan, which has the inscriptions in two scripts, Ahom and Sanskrit. H.R.H. Prince Louis of Battenberg has honoured the Society with a contribution on "Medals of Admiral Vernon," describing many unpublished varieties in his collection, thus further increasing the number of this extensive series.

I must apologize for having detained you too long in listening to my summary ; but I should like to add that it is a great satisfaction that, in spite of our severe losses of late of the older Fellows of the Society, the attendance at our meetings has been maintained, and that we still have so many interesting exhibitions. I know of no greater tribute that can be paid to the memory of our late President Sir John Evans.

I would mention that lately at one of the Council Meetings a change of the hour of our meetings was discussed. Seeing that the attendance at the meetings has been so well maintained, I did not myself consider any alteration necessary. I am quite sure that if the meetings were held at an earlier hour many of you who come regularly would be prevented doing so, and if much later it would be inconvenient to those who live outside London.

Colonel Massey moved and Mr. Messenger seconded a vote of thanks to the Vice-President for his address.

Mr. Grueber then announced the result of the ballot for the Council and officers for the ensuing year, which was as follows :—

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