

THE COINAGE OF HENRY VII

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INTRODUCTION

MOST of the English hammered coins of the late medieval period have been submitted to exhaustive study during the past fifty years, but the coins of Henry VII have presented so many baffling and seemingly insoluble problems that not even the labours of G. C. Brooke,¹ L. A. Lawrence,² and R. Carlyon-Britton³ have produced the answers to anything like all the questions. It is our hope, after coming together to pool the results of a good many years of study, that in offering this paper to readers of this *Journal* we may be found to have provided a reasonably complete picture of one of the most difficult and fascinating pages of English coin history.

There is no doubt that the larger silver coins of Henry VII, the shillings, groats, and halves, are among the most interesting of the hammered series, not only from a purely numismatic viewpoint, but also artistically and historically. As well as presenting the many problems of sequence, dates, and styles mentioned, they illustrate in a most striking way the evolution of the royal bust from the traditional full-faced aspect with stiff curls and open crown, to the modern conception of a true portrait, at first full-faced like the old, but finally in profile, copying the work of the Renaissance on the Continent.

The ordinary gold coin of the reign, the angel, does not present the variety or the artistic interest of the silver, though the designs of St. Michael and the dragon and the ship on the reverse were modified during the reign. On the other hand the splendid series of sovereigns showing the king robed and crowned, seated facing on the throne, are of the greatest artistic and numismatic importance, for they show probably the peak of Gothic medallic art, and then the picture gradually transformed and revitalized by the new ideas of the Renaissance.

For our classification we have retained and amplified Brooke's five-type system based on the style of crown on the groats which could hardly be bettered for the silver. It is not strictly applicable to the gold, but for convenience' sake the type numbers have been used as far as is practicable by reference to the mint-marks, lettering, and stops.

The groat being the most important coin it has received prior and separate treatment under each of Brooke's types, so that the first four chapters will be found to deal solely with this denomination omitting only the profiles. Part I is completed with a chapter on the full-face half-groats. Part II commences with a comprehensive chapter covering all the profile coins. The gold coins, sovereigns, ryals, angels, and angelets are dealt with in Chapter VII, followed by one on the small silver, pennies, halfpennies, and farthings. The final chapter discusses the questions of dating the issues and also describes the great variety of privy marks which are found on these coins.

¹ *English Coins* (1931).

² *The Coinage of Henry VII* (*N.C.* 4/xviii, 1919).

³ *The Last Coinage of Henry VII* (*B.N.J.* xviii, 1925-6). On Some Early Silver Coins of Henry VII (*B.N.J.* xxiv, 1941-2).

A summary of the classification adopted for the groats is given in the list below, together with the mint-marks found on each type by which it is possible to relate the earlier angels and angelets. For the greyhound's head and crosslet marks on the gold, however, a different procedure is required which will be found described in the text.

A list is also given of the eight types of lettering encountered. These, with their several sub-types, are fully described and illustrated in the text. As to the reverse cross-ends found on the groats and on some of the halves, these are valuable for identification purposes and illustrations will be found of the eleven forms noted. Dr. Lawrence illustrated eight in his 'Coinage of Henry VII', and Mr. Carlyon-Britton added one more in 'The Last Coinage of Henry VII', but there are, in fact, eleven, with minor forms of one or two which are duly mentioned in the text.

Most of the half-groats and smaller silver as well as the sovereigns have marks outside the normal range, but it is still possible to give them type numbers from the classification as will be explained in the relevant chapters.

CLASSIFICATION

General Classification:

- I. The open crown.
- II. The crown with two plain arches.
- III. The crowns with jewelled arches.
- IIIA. Two jewelled arches, bust 1—as types I and II.
- IIIB. Two jewelled arches, bust 2—hair curled in at ends.
- IIIC. Outer arch only jewelled, bust 3—realistic hair, pupils to eyes.
- IV. The single-arched crowns, bust 3.
- IVA. Single bar with 4 crockets as jewels.
- IVB. Double bar with 6 uprights as jewels.
- V. The profile type.

<i>Type</i>	<i>Mint-marks</i>	<i>Letters</i>	<i>Cross-ends</i>
I	Halved sun and rose, halved lis and rose, lis on rose, lis on sun and rose. Lis, cross fitchy, rose	A	1
II	No mint-mark	A	1
	Heraldic cinquefoil	A	1, 2
IIIA	Heraldic cinquefoil	B	3
IIIB	Escallop	B, C, D, E	3, 4
	Pansy	E	4, 5
IIIC	Pansy	E	5, 6, 7
	Leopard's head crowned	E	7
	Lis-issuant-from-rose	E	7
	Anchor	E	7, 8
	Greyhound's head no. 1	E, F	8, 9
	Greyhound's head no. 2	F	9
	Cross-crosslet	G	10
IVA, B	Greyhound's head no. 2	G	9, 10
	Cross-crosslet	G	10
V	Cross-crosslet	G	11
	Pheon	G	11

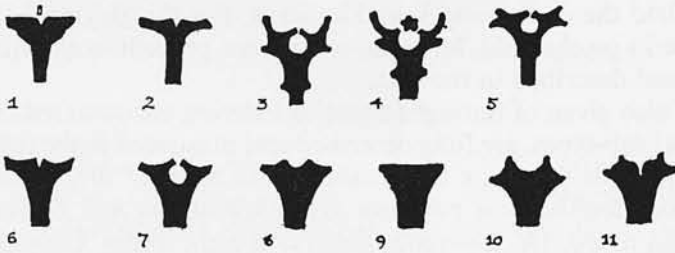
CROSS ENDS

FIG. 1.

PART I

CHAPTER I. *Type I: The Open-Crown Groats*

The first groats of the new reign continued unchanged the types of Richard III, consisting of those bearing the old conventional full-face bust with wide, stiffly curled hair and open crown. The surviving coins of this type, however, are divisible into two distinct groups: those with compound mint-marks, saltire stops, and a bust like that of Richard III, which should be the earlier, and those with single mint-marks, quatrefoils or saltires by the neck, and varied stops. These latter often have a bust of somewhat different style, and are linked by muling with subsequent types and so, it is reasonable to assume, are later in date.

A. *The compound marks.* There has always been a considerable divergence of opinion as to what these mint-marks really are. No denomination of the first coinage is common and many of the surviving groats are in poor state, clipped or with the mint-marks barely legible from wear. It is not surprising, therefore, that all the marks were originally called simply 'lis on rose'. In Walters's 1913 sale, however, three groats were described as having the mark 'lis over the united sun and rose', and in Lawrence's 'Coinage of Henry VII' (*N.C.* 1919), the rose and lis dimidiate and the lis over sun and rose are recognized as variants of the original. Brooke, however, in his *English Coins* published in 1931, reduced the marks to two again: lis over sun and rose and lis-rose dimidiate, and the B.M. collection is classified on this basis. Subsequently, R. Carlyon-Britton published the description of a groat with Richard III's sun and rose dimidiate mark on the reverse (*B.N.J.* xxiv).

Over seventy groats have been examined either in original or cast form, which must represent a good proportion of the surviving specimens, and the following is a resumé of the position regarding the mint-marks used:

1. The marks used were: halved sun and rose, halved lis and rose, lis on rose, and lis on sun and rose.
2. The halved sun and rose is known on only three reverses, which may or may not be from Richard III dies. The halved lis and rose mark is found on about one-third of the obverses including those with halved sun and rose reverses. The lis on rose and lis on sun and rose are known on about one-third and one-quarter respectively of the obverses.

3. The evidence as to the order of use of these marks is conflicting. They were probably used concurrently during part of the period and certainly the halved lis and rose appears to have been used throughout if only spasmodically.

The halved sun and rose was, we know, the Yorkist emblem combining the sun of Towton with the white rose of York, and as such appeared on the later coins of Edward IV and on those of Edward V and Richard III and it is surprising to find it on the coins of the Lancastrian victor of Bosworth. The halved lis and rose was a Lancastrian answer to the Yorkist symbol, the lis being the Lancastrian emblem derived from Henry VI, who might have been King of France, and the rose the red rose of Lancaster. On the other hand the mark might have been intended to symbolize the uniting of the two houses by Henry's marriage with Elizabeth of York on 18 January 1486. The lis on sun and rose, which was probably not an early mark, seems more likely to have represented Henry's victory over the Yorkists and could well have been suggested by his success in crushing the rebellion of Lambert Simnel in June 1487.

Taking the marks in order of their mention above, the three reverses of the halved sun and rose are from two dies and, as already mentioned, the obverses have the halved lis and rose mark (Pl. XIX, 1). As to whether these reverses are from Richard III dies, it has not been possible to find any die-link, but the balance of probability is that they are, in view of the fact that the mark is not found on obverse dies, which of course would bear Henry's name. On the other hand, as will presently appear, there were undoubted Henry VII new angel obverse dies with the halved sun and rose mark.

A particular point is the form of the sun on these dies, which has four rays. The great majority of Richard III dies have a six-rayed sun in the mint-mark, a fact which led R. Carlyon-Britton in his 'Some Early Silver Coins of Henry VII' (*B.N.J.* xxiv)¹ to conclude that these were new dies of Henry VII. However, in 'Angels and Groats of Richard III' (E. J. W. in *B.N.J.* xxiv, 1943-4), it has been shown that this four-rayed sun does occur on rare late groats.

The second mark mentioned, the halved lis and rose, is found on the obverses of 25 of 71 groats specifically noted, of which, however, only 11 are true coins and further no mule with this mark on the reverse was noted. The shortage of reverses of this mark may be accidental but is certainly curious.

The remaining 46 obverses and 53 of the remaining 57 reverses, including the 14 with halved lis and rose obverses, have versions of the lis on rose mark consisting in each case of a lis of varying size and shape, and above and to the right, rose petals and/or sun's rays in different proportions and relative positions. This lis was not stamped over a previously applied mint-mark. In every case it looks as if the punch was cut as a whole and applied in the normal way, and more than one die has been noted on which the mint-mark has been struck from the same punch. Furthermore, it is possible to list many of the

¹ In this article Carlyon-Britton illustrates the reverse which he then thought to be unique (Pl. 1). This actually has a halved lis and rose obverse and not a lis on rose as stated, and is the first of the three coins known. Carlyon-Britton's no. 8 (Pl. 4), wrongly described as having a rose reverse, is the second specimen, while the companion to this (no. 9 in the list, not illustrated), is the third coin. Two obverse dies only are concerned in these three coins and the above remarks illustrate well the difficulties attending identification of marks on these coins.

punches under definite descriptions, as, in spite of the fact that more than one punch was used for some of the forms, the component parts on these duplicate punches are always recognizably of similar proportions and positions.

Here is a list of the chief forms noted:

1. Lis on rose no. 1: Fat lis and three rose petals to right. (On obverses and reverses.) (Pl. XIX, 2)
2. Lis on rose no. 2: Smaller lis with three rose petals to right, bottom one split into two and possibly representing sun's rays. (Always on obverses with rose on breast, and on reverses.) (Pl. XIX, 3)
3. Lis on rose no. 3: Lis as 2 with fragment of ray (?) on central petal and three rose petals to right. (On obverses always with nothing on breast, and reverses.) (Pl. XIX, 4)
4. Lis on rose no. 4: Lis as 2 and rose having three widely scattered petals. (On two reverses only.)
5. Lis on sun and rose no. 1: Small lis with sun's rays at top left to half right, and one and a half rose petals. (On obverses and rarely on reverses.)
6. Lis on sun and rose no. 2: Small lis with sun's rays only to right. (On reverses only with No. 1 obverses.)

The distribution of these forms of mark and of the other two already mentioned is as follows:

<i>Obverses</i>	<i>Reverses</i>	
1. Halved lis and rose (6 dies)	1. Halved sun and rose . . . 3	
	2. Halved lis and rose . . . 11	
	3. Lis on rose no. 1 . . . 1	
	4. Lis on rose no. 3 . . . 6	
	5. Lis on sun and rose no. 2 . . . 3	
	Indistinct . . . 3	— 27
2. Lis on rose no. 1 (2 dies, one with one without fleur)	1. Lis on rose no. 1 . . . 3	
3. Lis on rose no. 2 (3 dies, all with rose on breast)	1. Lis on rose no. 1 . . . 4	
	2. Lis on rose no. 2 . . . 4	
	Indistinct . . . 7	
4. Lis on rose no. 3 (4 dies, all with nothing on breast)	1. Lis on rose no. 3 . . . 1	
	2. No mint-mark—lis or cross- fitchy dies . . . 4	
	Indistinct . . . 3	— 26
5. Lis on sun and rose no. 1 (3 dies, all with fleur on breast)	1. Lis on sun and rose no. 1 . . . 1	
	2. Lis on sun and rose no. 2 . . . 9	
	3. Lis on rose no. 1 . . . 3	
	4. Lis on rose no. 2 . . . 1	
	5. Lis on rose no. 4 . . . 2	
	Indistinct . . . 2	— 18

6. Rose (single mark)	Lis on sun and rose no. 2	1
(3 dies, 2 with quatrefoils, one with saltires by neck)	Indistinct	4
		— 5
		<u>76</u>

It would seem that the forms listed above were intended to be separate marks, as the majority are distinguished on the obverse by an additional difference, namely, the breast ornament. It is the more curious, therefore, that there should be such a mixture of reverses to be found with many of them. The difficulty of placing them in order of use is well shown by the halved lis and rose mark. The fact that it is found with Richard's halved sun and rose would seem to make it the earliest issue and yet it is also found with all the other marks including the lis on rose no. 3 which is the obverse mark of the four groats with 'no-mint-mark' reverses. These reverses are linked with the later single marks, as will shortly be explained.

Lettering A

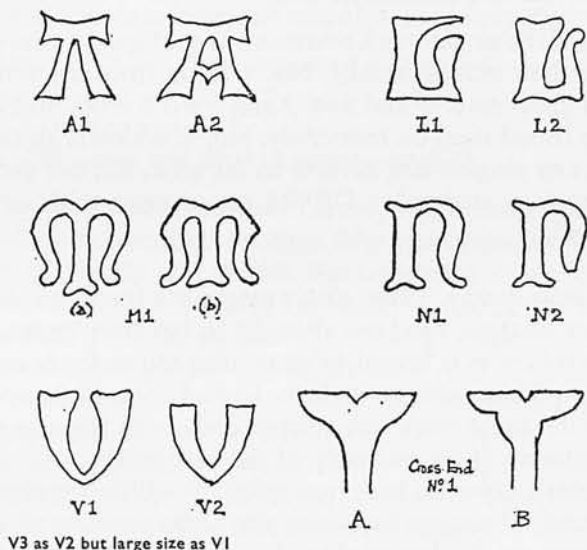


FIG. 2.

In spite of the difficulty in deciding the order of the marks owing to the number of different forms of reverse found with them, a strong confirmation that the halved lis and rose mark was the first to appear is to be found on the reverses of this mark. They all have the original form of cross-end no. 1 as found on the groats of Richard III (A, Fig. 2), while the later lis on rose and lis on sun and rose reverses show a modified form with the two arms of differing shape (B, Fig. 2). This is the form found on all the single-mark reverses.

The lettering on these groats shows little variation, with the exception perhaps of the V's on the reverses which are found of three forms, V1, V2, and V3 (Fig. 2), and occasionally the N's in LONDON. The pattern of use of these letters, however, is obscure, as both V1 and V2 have been found on reverses of the halved lis and rose mark, and all three forms on the other

reverses. The reverse stopping is of a standard form which is preserved unchanged throughout, with none of the varieties which are such a feature of the single-mark groats and those of type II. It consists of double saltires after DEVM and a saltire and abbreviation mark after ADIVTORE, the only variant being the presence or absence of saltires after POSVI. There are no stops in the inner circles, and the A of ADIVTORE, which might be included in the picture as being of probable privy significance at this time, is always unbarred.

The four no-mint-mark reverses found with obverses of lis on rose no. 3 all differ from the standard arrangement given above, having barred A's in ADIVTORE and stops in the inner circle, both of which features are characteristic of the single-mark groats, which usually also have the mint-mark on the obverse only. The stops on these reverses are as follows:

1. Quatrefoils after DEVM and TAS, lis after DEVM (BM). (Pl. XIX, 4)
2. Saltires before and after POSVI, quatrefoil after TAS, lis after LON.
3. Quatrefoils before and after POSVI and after TAS, lis after LON. (Pl. XIX, 5)
4. Quatrefoil after DEVM, saltire after TAS.

A comparison of the single-mark reverses has enabled the first three of these to be allotted to their correct marks, No. 1 being from the same die as the B.M. lis-marked groat reverse and nos. 2 and 3 from cross-fitchy reverse dies which have been found used on true coins. No. 4, which is an unknown stop arrangement on any single-mark reverse so far seen, has not yet been identified; where there is a stop after DEVM on reverses without the lis it is invariably a trefoil.

B. *The single mint-marks.* Three single marks are found on the groats. Up till now the order of these has been thought to be: rose, cross-fitchy, lis. In the pages which follow it is hoped to show that the order is more correctly stated as: lis, cross-fitchy, rose, though the lis and cross-fitchy coins probably appeared about the same time and concurrently with the end of the lis on rose and the beginning of the currency of the rose mark.

These single-mark coins all have quatrefoils or saltires by the neck and so may be immediately distinguished from the compound mark groats. They also all have fleurs on the breast, but the obverse stops differ. The cross-fitchy coins have saltires as on the compound-mark groats, the lis coins have pellets, and the rose-marked coins have the later trefoils. The reverse stopping shows great variety, including the use of lis, trefoils, and saltires in both inner and outer legends.

There are only two specimens known of the lis-marked groat, both from the same obverse die. One is in the B.M. collection (Pl. XIX, 7), while the other was in the Lockett sale under no. 1700, though not illustrated. This obverse presents two unusual features: the king's name is spelt HENRCVS with DEI in full, and the stops, as already noted, are pellets. The two reverses, without mint-mark, are from similar but not identical dies, with saltires after DEVM and TAS and lis after DON.

The coin in the B.M. collection also ticketed as mint-mark lis, having a very badly struck obverse, has quatrefoils by the bust, but the king's name is spelt

normally as HENRIC, and it has trefoil stops, and therefore it can only be of the rose mark. However, the reverse is of cross-fitchy type II, and the coin is the only rose/cross-fitchy mule known.

There are many more cross-fitchy groats in existence than the lis; twenty-two have, in fact, been noted, but only three obverse dies were used for them all. These obverses resemble that of the lis coins in having the king's name abnormally spelt, this time in full: HENRICVS.DEI, but the stops are saltires, except for a pellet after REX on one of the dies. They also have quatrefoils by the neck, and the busts closely resemble the lis bust in having a rounded boyish face with round eyes. The three dies can be recognized by the legend ending, viz. 1—FRA (Pl. XIX, 8), 2—FR^z (Pl. XIX, 9), and 3—also FRA but with the right-hand leg of the A struck over the vertical limb of the cross, and pellet after REX (Pl. XIX, 10).

The reverses, like those of the lis coins, have no mint-mark, and may be divided into three classes:

- I. Lis after LON, saltires after POSVI and TAS (4 dies).
- II. Lis after POSVI and ADIVTORE (2 dies).
- III. Trefoils and saltires in inner and outer legends (many dies).

They are found with the three obverses as follows:

- I. With die 1 (1 coin) and die 2 (3 coins).
- II. With die 1 (1 coin) and die 2 (3 coins).
- III. With die 2 (6 coins) and die 3 (8 coins)—total 22.

The surviving rose groats are considerably more numerous than those of either of the other two marks. Perhaps fifty specimens were examined and a large number of obverse and reverse dies were used to produce them. There is no longer any unusual feature to be found on them. On the obverse the king's name is HENRIC.DI as on the normal groats of the reign. Quatrefoils are still occasionally found beside the neck, but these small crosses are usually in the saltire position. The obverse stops used are normally trefoils, but there is one special die known which has star stops.

The reverses are of the type which forms the third class of cross-fitchy reverse, i.e. the stops are combinations of saltires or quatrefoils and trefoils, and no lis is used. Usually, there is no mark on these reverses but a few groats are known with the mint-mark on both sides (Pl. XIX, 13). The reverses with mint-mark form a class of their own, as although the six specimens noted have reverses from no less than five different dies, all have the same stopping arrangement, with trefoils after DEVM and ADIVTORE. On four of the dies, the mark, probably from one and the same punch, is smaller than that on the obverses.

It is not possible to show a sequence of production in the rose obverse dies, but there is a reasonable probability that the first and last are known. What may be the first die was that used for the rose/lis on rose mule illustrated in the Lockett catalogue under no. 1698 (and Pl. XIX, 11). In addition to having been used with this reverse of an earlier type, this die has quatrefoils by the neck as on the lis and cross-fitchy obverses and in contradistinction to the saltires found on the great majority of the rose obverses. Also it has double trefoils at the end of the legend, which have not been noted on any other die.

And finally the rose mark is poorly shaped and not very clear. The normal mark is a well-shaped five-petalled flower with central pellet, such as is used on the angel reverses.

What may well be another very early die also has an unusual mark with rather smaller and more widely scattered petals than normal, which mark has been superimposed on a smaller rose or rosette, some petals of which can be seen to the right of it (Pl. XIX, 12). Its early date may be surmised from the fact that the reverse of one of the two specimens noted is the same as that of a groat having the obverse from the die which has been suggested as the first of the rose mark. The obverse of the B.M. rose groat with the mark on both sides is also from this unusual die (Pl. XIX, 13). The larger of the two marks looks to be that used for the angelets of type I, but the source of the smaller one, which is of similar style, has not yet been traced. It bears no resemblance to the rosette mentioned as found on the reverses of the groats with mark on both sides.

What is probably the last die made is the unique obverse with star stops already mentioned (Pl. XIX, 14). The significance of these stops lies in the fact that among the earliest of the groats of the next type with double crown and no mint-mark there are a few rare specimens with star stops on the reverse, and it seems unlikely that more than one punch of this unusual nature would have been made. Furthermore, the rose obverse and the no-mint-mark reverses are the only dies of their respective marks which have been found with all unbarred A's. Finally, the two known specimens of rose groat with star stops are from the same obverse die, whereas the four no-mint-mark coins noted are from three different reverse dies, which would be the normal number made for use with the obverse die. It is probable, therefore, that the four no-mint-mark groats referred to are mules with the rose mint-mark and demonstrate that the rose mark immediately preceded the first of the double-crown dies. We may hope one day to find a rose groat with star stops on both sides.

Having in mind the foregoing facts it would seem that we are not dealing with marks of equal importance. The single known lis obverse and the three cross-fitchy obverses were probably the full extent of their respective issues, and it is difficult to escape the conclusion that the lis entirely, and the cross-fitchy partly, were outside the normal run of issues. This is also indicated by the unusual spelling of the king's name on all the obverses and by the employment of the lis mark on obverse or reverse, which mark, during this reign, is often a sign of something unusual, as witness the portcullis reverses, the shillings, and the early profile groats.

None of these points applies to the rose groats, which, on the contrary, show every appearance of normality—the large number of dies, the king's name HENRIC, and the absence of a lis in the legends. If we are correct in our assumptions regarding these marks we should expect the lis and cross-fitchy groats to have been shortlived and probably partly or wholly in concurrent issue with the regular marks lis on rose and rose. The mules existing would then indicate the precise position of the two experimental marks, and confirm that the rose was the regular mark following the last of the compound marks and preceding the first of the type II groats.

First, then, there is the lis on rose groat in the B.M. collection which has a reverse from the same die as the B.M. lis groat; they are, in fact, side by side in the tray for better comparison. Second, there are the two groats with lis on rose obverses having no-mint-mark reverses of cross-fitchy type I with lis after LON, both of which are known on true coins. (See nos. 2 and 3 of the list in Section 1, and **Pl. XIX, 5.**) Here is the proof that the lis and cross-fitchy marks were more or less contemporary and followed directly on the lis on rose mark.

Finally, the cross-fitchy groat (**Pl. XIX, 10**) has a reverse of type III from the same die as the reverse found on the rose groat (**Pl. XIX, 12**), while the obverse die from which this latter coin was struck is that which was used for the two rose/lis on rose mules already mentioned, and which has been suggested as the first rose die (**Pl. XIX, 11**). These three coins, therefore, demonstrate that the rose mark also followed directly on the lis on rose, and that the cross-fitchy mark was contemporary with its first dies.

To sum up then, the evidence seems conclusive that the rose was the regular mark used between the compound marks and the no-mint-mark groats of type II, and that the lis and cross-fitchy marks were used experimentally and outside the regular series at about the time of the change from the lis on rose to the rose. There can be no question that either of the latter followed the rose, as neither can be shown to have had any connexion whatever with the groats of type II, whereas they are both found muled with the lis on rose mark. It may be added that the purpose of the two experimental issues at this time remains a mystery and no solution is offered.

In view of all the foregoing it would seem at first sight that to talk of the order of the single marks is a misnomer. That there was a definite sequence in the production of the dies, however, can be demonstrated by the introduction of a new factor, and one which has many times proved its reliability for such a purpose, and that is the lettering. Two forms of L (L1, L2) and two forms of M (M1a, M1b) are to be found on the reverses of the open-crown groats (see Fig. 2), viz.

L1 and M1a are found on the reverses of all the compound-mark groats, on the lis reverses, and on the cross-fitchy reverses of type I.

M1b is found on the rest of the cross-fitchy reverses, on all the rose reverses, and on the first groats with the new double crown.

L2 is found on the two reverses of cross-fitchy type II and on many of the subsequent reverses as well as on a few later obverses.

Here we have the final justification for the suggested order of the single marks, viz. lis, cross-fitchy, rose, and also for the order of the three types of cross-fitchy reverse. It will be remembered that type I has the lis in the inner circle as on the lis groat reverses. Type II, which still shows the lis, has it now in the outer circle, while type III has no lis in either legend and the stops used are those also employed for the rose reverses. These latter, in fact, were probably normal dies made for use with the rose obverses and the coins showing them are therefore mules, though so far only the one actual die-link mentioned above has been found.

CHAPTER II. *Type II: The Plain Double-Arched Crown Groats*

The first major change in the appearance of the bust on the groat for 150 years occurred when two plain arches surmounted by orb and cross were added to the old open crown to bring it into line with the similar crown which had already appeared on the cross-fitchy marked sovereign and ryal authorized in 1489.

1. *No mint-mark.* The first coins with the new crown bear no mint-mark, possibly because the cross on the crown occupies the space hitherto allotted to it. Apart from the crown, they differ from the previous groats in having small trefoils at the cusps of the tressure instead of fleurs. In the lettering (A), reverse cross-ends (no. 1), and the trefoil stops, however, they continue the type of the latest rose-marked coins, and the majority also have saltires by the neck.



FIG. 3.

It has not hitherto been remarked that there are, in fact, two types of the new crown which are quite distinctive, as may be seen from the illustrations (Fig. 3). Crown no. 1 is wide, with a straight base and a gap right across between the base and the jewels and lis, while at the bottom corners only one strand of hair protrudes on either side instead of the three showing beneath the open crown. Crown no. 2 is narrower and taller, having a more curved base with the jewels and lis coming down to it in the normal way, and showing only the normal three triangular spaces between, while the hair has gone back to the original three strands on either side. This second and more common type of crown is continued on the coins of the following mark, which confirms that it is the later type.

The groats with crown no. 1 are fairly scarce. They constitute perhaps a quarter of the surviving specimens, and five dies have been noted, distinguished as follows:

- 1—FRANCI, 2—FRANC, 3—FRANC followed by a quatrefoil, 4—FRANC, with a trefoil either side above the cross on the crown, 5—FRANC, with one trefoil above and one below the left arm of the cross.

The last-mentioned die in addition has ANG instead of ANGL. The use of trefoils on dies 4 and 5 may well be some form of privy marking in substitution of the mint-mark. The two arrangements mentioned were repeated on later coins with crown no. 2 and three new forms appeared, namely: trefoil above the left arm of the cross, trefoil above the right arm of the cross, and trefoils in each of the four angles of the cross. The die on which the four trefoils occur confirms the special nature of these symbols, as the one at bottom right is struck over the h of HENRIC, and so is not simply a space-filler.

All the five dies of crown no. 1 have saltires by the neck, but only about half of the surviving groats with crown no. 2 have them. As the rose groats have these symbols but the following cinquefoil groats have not, it would be reasonable to assume that those without are the later coins, but subsequent evidence will show that the presence or absence of saltires by the neck does not indicate any chronological order after the appearance of crown no. 2.

Apart from these saltires, and the trefoils by the cross which were apparently used on all the dies with crown no. 2, the later obverses have nothing of special note. The greater interest, as with the two previous marks, lies in the reverse stopping. This is even more varied than before, though in only one case are any stops to be found in the inner circle. This, as might be expected, is probably the earliest reverse. The varieties are as follows:

1. Stars after POSVI, DEVM and TAS.
2. Trefoils before and/or after POSVI and after DEVM, DEVM and ADIVTORE or ADIVTORE only.
3. Saltires (or quatrefoils) before or after POSVI, and saltires after DEVM and/or ADIVTORE.
4. Saltires (or quatrefoils) after POSVI only.
5. No stops.
6. Trefoil after POSVI and pellet after ADIVTORE.

The rare coins with star stops on the reverse are found exclusively with crown No. 1 (**Pl. XX, 1**). They have already been mentioned in connexion with the even rarer rose-marked obverses. The trefoil-stopped coins are the commonest of the series, and there are many different arrangements often complicated by the addition of a quatrefoil before or after POSVI, much as with the rose reverses. They are, of course, found with both crowns and a coin from the Lockett collection was noted with the obverse struck from the same die as one with star stops. The reverses with saltires are also found with both crowns, and have nothing to do with the earlier open-crown coins with saltires. They are fairly scarce, but a specimen has been noted with the obverse struck from the die used for the 'star' coin already mentioned, so whatever may have been the significance of the different stops it could hardly have been to indicate Pyx periods. The reverses with no stops are also scarce but these too are found with both crowns.

Finally there are the rare coins with pellet after ADIVTORE. The four specimens noted (one in B.M.) are all from the same reverse die, and all have the same obverse with crown no. 2, saltires by the neck and the king's name spelt HENRC (**Pl. XX, 2**). Incidentally, more than one die was made with the king's name spelt in this way: there was a groat in the Lockett collection with a different obverse and a reverse having no stops. These coins with pellet after ADIVTORE were probably among the last of the 'no-mint-marks', as an identical reverse, though unfortunately not from the same die, is known with an obverse having the cinquefoil mark. R. Carlyon-Britton illustrated one of these very rare coins in his 'Some Early Silver Coins of Henry VII' (*B.N.J.* xxiv (1941/2), pl. no. 13), and there was another from the same reverse die, but with a slightly different obverse, in the Lockett collection.

It remains to mention the two famous portcullis groats in the B.M. collection. These have a special experimental reverse with a portcullis in the centre in place of the pellets, and a large lis as mint-mark. The two specimens are from the same reverse die but different normal obverses, namely:

- (1) Crown 2, L1, saltires by the neck,
- (2) Crown 2, L2, no saltires by the neck,

and several specimens of normal coins are known struck from the first of these two dies. The fact that the obverse dies used have crown no. 2 disposes of the suggestion that the reverse might have some link with the lis coins of type I. Furthermore, three of the four cross-ends of the portcullis reverse take the new form adopted during the currency of the following cinquefoil mark. All this, of course is merely a confirmation that the lis mark indicated a pattern or experimental type.

2. *Heraldic cinquefoil*. The only other known groats with the crown of two plain arches have a mint-mark inserted between the cross and the king's name. This has been called the heraldic cinquefoil to distinguish it from the later plain cinquefoil or pansy. They differ from the 'no-mint-mark' groats in having returned to the large triangular fleurs used on all the open crown groats. They also present a greater number of variations for consideration. Some of these, however, accompany a second change in the form of the crown, and will therefore be dealt with separately under type IIIA.

The earliest coins are those very similar to the last 'no-mint-mark' groats, having the crown with the plain square cross, trefoil stops, and the same lettering (A) and reverse cross-end (no. 1). The face, too, has the same grim lines about the mouth, but one small change which will be noticed is that the hair beneath the crown has gone back to the type of the crown no. 1 'no-mint-marks', with only one strand standing out at each side. These early coins are found with the mint-mark on both sides or on the obverse only, and all the specimens noted have three fleurs on each side and nothing on the breast. They have no stops in the reverse inner circle.

The coins with cross-end no. 1 and the mint-mark on the obverse only, present features which may point to their being mules with the 'no-mint-mark' groats, though no die identity has yet been traced. The reverses have either a trefoil after POSVI and pellet after ADIVTORE or no stops, both of which arrangements have already been listed on the 'no-mint-mark' coins. The two known specimens of the first-named type have already been mentioned (Pl. XX, 3). The one illustrated by Mr. Carlyon-Britton has also a pellet above and to the left of the mint-mark on the obverse, not visible, if it existed, on the Lockett coin, which would seem to indicate some relationship between the obverse and reverse, in which case the 'no-mint-mark' coins would be the mules and these the normals.

These cinquefoil groats with cross-end no. 1 are scarce, as the great majority of coins of this mark have a new cross-end no. 2, which, therefore, probably appeared within two or three months of the commencement of the currency of the mark. Shortly after the adoption of the new cross-end the first main division in the obverses occurred, namely, a change in the type of cross on the orb above the crown. As already mentioned, the early cinquefoil

groats have the same square-type cross which was used on the 'no-mint-mark' crowns, but the majority have a very different style of cross, with a tall, tapering stem and short-pattée arms (see Fig. 4). At the same time the face lines were changed to give a more pleasant expression, while a further distinction is apparent in the reversed S for ET, instead of the ζ found on all

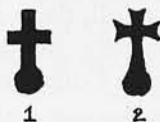


FIG. 4.

other groats of this reign. That these obverse changes occurred very shortly after the change in the reverse cross-end is proved by the great rarity of the groats with the old type of cross but reverse no. 2. The only one noted was in the Parsons collection.

The reverses of the earlier coins with cross no. 2 and cross-end no. 2 still have no stops in the inner circle, and they are also sometimes found with no mint-mark, but of course there is no longer any possibility that these are mules with the 'no-mint-mark' coins.

All the obverses so far mentioned have had six fleurs at the cusps and unbarred A's (A1) in GRA and FRANC and usually in ANGL also. We now come to another dividing line in the history of the cinquefoil groats, namely, the change to all barred A's on the obverses (A2), and the first to show this feature are the rare coins with only four fleurs at the cusps, two on each side (Pl. XX, 4). These also have no stops in the reverse inner circle and are occasionally found with the mint-mark on the obverse only.

The final division occurs with the reappearance of six-fleured obverses, still with cross no. 2, and cross-end no. 2, but with barred A's on both sides (Pl. XX, 5). This second issue of six-fleured coins differs from the earlier issue chiefly in having 'coded' stops in the reverse inner circle, but a new type of N with mutilated tail (N2) is also found on obverses and reverses. This use of single and double trefoils before and after CIVITAS and LONDON in various combinations represents the beginning of a long series which extended in one form or another throughout the rest of the reign, and which will be dealt with separately in the chapter on privy marks (Part II).

Whether the number of fleurs at the cusps had any special meaning or not is open to question. Neither the four-fleured nor the six-fleured coins have, of course, a fleur on the breast, but contemporary with the later six-fleur type, with N2 and stops in the reverse inner circle, at least two dies were made with an extra fleur on the breast (Pl. XX, 6). One of these has the unusual spelling AGL for ANGL, not noted on any other die of this period. This seven-fleur type was repeated on the rare cinquefoil groats with double-jewelled arches to the crown, shortly to be described under type IIIA, but there is nothing else to indicate that these were the last dies of type II, if, in fact, they were.

Summarizing these varieties we have the following picture:

1. Cross 1, reverse 1, all unbarred A's on the obverse.
2. Cross 1, reverse 2, " " "

3. Cross 2, reverse 2, all unbarred A's on the obverse.
4. Cross 2, reverse 2, barred A in ANGL only.
5. Cross 2, 4 fleurs, all barred A's on the obverse, N1.
6. Cross 2, 6 fleurs, trefoils in reverse i/circle, N2.
7. Cross 2, 7 fleurs, " " "

Finally, with mint-mark cinquefoil, there is the unique 'Sovereign' groat, described by the eighteenth-century numismatists Ruding, Folkes, and Snelling, and now in the Hunterian Collection, Glasgow. It has:

Obv. Figure of the king, robed and crowned, with sceptre and orb, seated facing on throne, the word LONDON beneath, and normal legend in the outer circle.

Rev. Shield of England and France over long cross, with POSVI DEVM legend as on the later profile groats.

Its genuineness has already been dealt with (E. J. W. in *B.N.J.* vol. xxv), and we can now go farther, and, with the aid of the data listed above, place it in its exact position in the series. The obverse has all barred A's but N1, and the reverse has cross-end no. 2. It is, therefore, contemporary with the scarce four-fleur coins which preceded the introduction of the groats with N2 and trefoil-stopped inner circles on the reverse, which constitute perhaps half of the issue. It is probably a pattern for the silver coinage, and the obverse is, in fact, a faithful copy on a smaller scale of the seated figure on the second issue of the sovereign which bears this mark and which might well have appeared about the same time, while the reverse design is that eventually adopted for the profile issue. We may think it a pity that these attractive types, though considered suitable for the minute area of the penny, were rejected for the groat.

CHAPTER III. *Type III: The Early Jewelled-Crown Groats*

1. *Type IIIA: Heraldic cinquefoil.* The rare groats of the cinquefoil mark having jewels added to both arches of the crown appeared at the very end of the currency of the mark and might well be due to the influence of Alexander of Brugsal, who was called over to be the King's Engraver in 1494. They represent a distinct change of style, a change, incidentally, which was completed on the first coins of the following mark, the escallop, by a modification of the only hitherto unchanged feature, namely, the old conventional style of hair with the curls turning outward at the ends.

In addition to the new crown then, the face is narrower with pointed chin and a new plain lettering (B) is used, notable for the Roman M which appears on the reverses, not seen since the early groats of Edward III, and the very distinctive open or Greek E. Also, rosette stops were substituted for the old trefoils and a new cross-end (no. 3, Fig. 1) was employed for the reverses. There is a unique groat struck from what must have been the very last obverse die of the old type II, which has the king's name in the new plain lettering with open E and the rest of the legend in the old lettering A (**Pl. XX, 8**).

So far three obverse dies of this new type IIIA, of the heraldic cinquefoil mark, and six reverses have been noted. One of the obverses has the normal

six fleurs (die 1), while the other two have seven fleurs, one on the breast (Pl. XX, 10). From one of the latter (die 2) no less than nine coins were traced, but of the other (die 3) only one was noted.

Quite as numerous as the true coins of type IIIA are the mules with the preceding and following types, that is with the cinquefoils of type II and the escallops of type IIIB, while mules also exist which ignore type IIIA altogether, combining the dies of the two latter types. This illustrates well the limited nature of type IIIA, for which quite possibly only the three obverse dies noted were actually prepared. The reverses found with all the mentioned mules have double trefoils or rosettes before and after CIVITAS and LONDON, which is the form found on the late cinquefoil dies of type II. The 'coded' stopping found on the earlier dies was not, in fact, resumed until the late escallops.

Here are details of the known specimens¹ of the three types of mules mentioned:

First, those with the earlier cinquefoil type II dies:

1. *Obv.* Cinquefoil type II, 6 fleurs, N2/*Rev.* Type IIIA, die A (BM) (Pl. XX, 9)
2. *Obv.* Cinquefoil die IIIA-1/*Rev.* Type II, trefoils in i/c, N2 (2 coins)
3. *Obv.* Cinquefoil die IIIA-2/*Rev.* " " " (2 coins)

Second, those with the following escallop mark:

4. *Obv.* Cinquefoil die IIIA-2/*Rev.* Escallop, lettering B2 (4 coins)
5. *Obv.* Escallop, let B1/*Rev.* Cinquefoil type IIIA, die B (2 coins)
6. *Obv.* Escallop, let C1/*Rev.* " " " (2 coins)

Finally, the mules between the late cinquefoil type II dies and the earliest escallop dies ignoring type IIIA:

7. *Obv.* Cinquefoil type II, 6 fleurs, N2/*Rev.* Escallop, let. B2 (LAL Pl. VII, 12)
8. *Obv.* Escallop, let B1/*Rev.* Cinquefoil type II, trefoils, N2 (2 coins)
9. Escallop special die/*Rev.* " " " (Roth II, 1918, 214-Pl. IV)

This last coin will be described in the next section.

2. *Type IIIB: Escallop.* What was undoubtedly the first die made for the new mark is that used for the unique mule just mentioned. This appeared in the Roth sale of 1918, but it has not been possible to trace its present whereabouts. It differs from the normal in many ways and has every appearance of being a trial piece from the hand of Alexander de Brugsal. Firstly there are no fleurs at the cusps, secondly the crown is of unusual style with more prominent jewellery and a large cross occupying the place of the central lis, and thirdly the hair is not arranged in conventional curls but is brushed out almost horizontally from the face. Finally the lettering is generally of a plainer style even than the normal B1 or B2. As already noted the reverse is not of type IIIA but of late type II.

The obverse design adopted as standard for the new mark incorporates

¹ Other than those specially noted, the coins listed are nearly all in the collections of the writers, and more than one specimen of most of them exists.

none of these revolutionary features. It is, in fact, as already stated, a continuation of the IIIA obverse with the sole exception of the hair punches. These are given a rather less conventional appearance, with the curls now turning inwards instead of outwards at the ends. The reverses also continue the type of the IIIA's with cross-end no. 3 and double rosettes (later trefoils) before and after CIVITAS and LONDON.

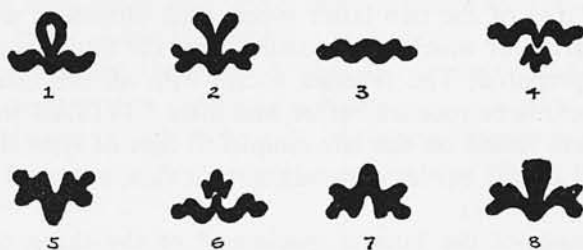


FIG. 5.

It is possible to place the obverse dies of the escallop mark in reasonable order of sequence by reference to the elaborate series of varieties which are such an extraordinary feature of the new mark, and which must have had a definite privy significance. These consist of no less than five different variables, viz. eight types of fleur, two kinds of stop, two cross-ends, two forms of reverse legend, and seven types of lettering, while, as will be explained, the last type of lettering introduces a further and very complex variable. The combination of these make up the following picture:

- | | | | | |
|-----|--------------|-----------------------------------|----------------|----------------------|
| 1. | Fleur no. 1, | rosettes, | reverse no. 3, | lettering B1 or B2 |
| 2. | „ | „ | „ | „ C1 or C2 |
| 3. | „ | „ | „ | „ D1 |
| 4. | Fleur no. 2, | „ | „ | „ D2 |
| 5. | „ | rosettes/trefoils, | „ | „ D2 (Mule 4/7) |
| 6. | Fleur no. 3, | trefoils/rosettes, | „ | „ D2 (Mule 7/4) |
| 7. | „ | trefoils, | „ | „ D2 |
| 8. | Fleur no. 4, | „ | „ | „ D2 |
| 9. | Fleur no. 5, | „ | „ | „ D2 |
| 10. | Fleur no. 6, | „ | „ | „ D2 |
| 11. | „ | trefoils/rosettes (new rev. leg.) | „ | „ D2/E1 (Mule 10/13) |
| 12. | Fleur no. 7, | rosettes/trefoils | „ | „ E1/D2 (Mule 13/10) |
| 13. | „ | rosettes, | „ | „ E1 |
| 14. | Fleur no. 8, | „ | „ | „ E1 |
| 15. | „ | „ | reverse no. 4, | „ E1 |

The eight types of fleur (see Fig. 5) found on these groats are an outstanding novelty, quite unknown in any other mark, and it is interesting to speculate on their purpose. The supporters of the three-monthly Pyx period marking theory¹ have certainly a basis for argument here for the escallop mark could well have been current for two years, but the use of the other

¹ See 'The Heavy Groats of Henry VI', by W. J. W. Potter (*B.N.J.* xxviii, 1957) for views on this.

privy marks, the stops and lettering, in conjunction with the fleurs would need a convincing explanation.

The illustrations give the forms of the eight fleurs, and the order in which nos. 1, 2, 6, 7, and 8 have been placed is fully established, not only by the mules with the preceding and succeeding marks, but also by the lettering, cross-ends, and mules within the mark as indicated in the list above. When a second trefoil-stopped fleur is found with rosette reverse, at present missing, no. 3 will have been determined, and then only the order of nos. 4 and 5 will remain conjectural. Incidentally, groats with fleurs nos. 3-5 are of great rarity, and only three or four poor specimens have been noted.

As to the two types of stop, as will be seen, fleurs nos. 1 and 2, and 7 and 8 are found with rosettes, and the others with trefoils. That these were possibly intended as further differentiation of the privy marks seems possible, as on many of the obverse dies the top arm of the cross has been cut off short to give room for a rosette or trefoil directly above. Furthermore, there is a unique groat with fleur no. 1 and lettering C1 which has rosettes in the angles of the tressure on the obverse, recalling a similar type in the early groats of Henry VI (**Pl. XX, 11**). It is a pity that this additional emphasis on the stop was not continued.

The two forms of reverse legend are connected with the lettering change from the Roman to the Lombardic M shortly to be described. The original form of: POSVI/DEVM*A/DIVTOR/E*MEVM, †CIVI/TAS† †LON/DON†, with three Roman M's and first rosettes and then trefoil stops was preserved during the currency of the first six fleurs. With the change to fleur no. 7, the reintroduction of rosette stops, and the use of new and larger letters, the legend was shortened to: POSVI/DEV†A/DIVTO/E†MEV, with one Lombardic M, while the 'coded' variation of the stops in the inner legend, as on the later cinquefoils, was resumed.

The lettering used on these coins merits detailed description, as it is almost as varied as the fleurs. The earliest coins have the plain lettering (B) with Greek E and Roman M which first appeared on the IIIA coins of the cinquefoil mark. This lettering at first retained the C and D of alphabet A, and has been called B1. On a few rare dies, both obverse and reverse, however, a C and D of very plain type, matching the other letters, is used, and this lettering has been called B2. The short life of these two alphabets may be judged from the fact that two escallop/cinquefoil mules with reverses from the same die and obverses with lettering B1 and C1 are known.

This next type C is an ornate lettering of a distinctive type with deeply notched serifs, which at first retained the Greek E, constituting type C1. The substitution of a normal, though narrow, closed E, constitutes type C2. Both these types include the plain Roman M. The next change, still during the currency of fleur no. 1, was to a rounder style of lettering (D) of which the L, V, and R are especially distinctive, the former being a close approximation to L2 of alphabet A. The earlier reverses with this lettering retained the P with long bottom serif belonging to alphabet C2, and might be referred to as lettering D1, but with the change to fleur no. 2 a P with curved serifs to match the other letters was introduced on the reverses, making lettering D2. The Roman M in these two types has now notched ends to the top and bottom of

the legs (M3). Lettering D was retained throughout the life of fleurs nos. 3, 4, 5, and 6.

The change to lettering E came with the introduction of fleur no. 7, when the Roman M was finally replaced by a Lombardic M and the letters with curved serifs went back to the notched style of lettering C. This time the V also received notched serifs, while the L is distinguished by two notches along the base instead of one. This last style of lettering inaugurated a new form of privy marking, namely, broken letters, that is letters with one or more of the usually prominent serifs broken off. The complexity of this system can only be properly appreciated by a study of the number of letters affected and the combinations of these which were employed. As the significance of these marks is unknown there is little point in listing them. On the other hand, the letters and combinations used were changed at intervals and can therefore be of assistance in establishing the order of dies. In so far as they can help in this they will be mentioned.

In summary, the various alphabets may be recognized as follows (see Fig. 6):

B1-E1, D1, L3, P1, V3, M2	D1-E3, D1, L5 (P2), V5, M3
B2-E1, D2, „ „	D2- „ „ (P3), „
C1-E1, D1, L4, P2, V4, M2	E1-E4, D3, L6, P4, V6, M4, R2
C2-E2, D1, „ „	E2- „ „ M5, R3

Two unusual groats remain to mention. Firstly, a groat with fleur no. 1 and lettering C1/C2 with the reading DITORE/V', where the die-sinker, having omitted the V in DIVTOR, added the E to fill up the space, and then put a V and abbreviation mark for VM to agree with MEVM where the E is normally found. A spelling error of this type is unusual at this time. Secondly, there is the groat illustrated by Dr. Lawrence on pl. viii, no. 1, of his 'Coinage of Henry VII' (*N.C.* xviii), of which another specimen has also been noted. It has a normal obverse with fleur no. 1, and lettering D1, but a special reverse with annulet stops and mullet before CIVITAS, lettering B2, and an elaborate version of cross-end no. 3.

3. Type IIIb. *Pansy*. The other mint-mark of type IIIb is the pansy. The majority of pansy groats encountered are of the later type IIIc with the realistic portrait, but in spite of their comparative scarcity, the specimens of type IIIb examined showed great complication in minor varieties. Superficially they are identical with the late scallop groats, but in addition to the crown (no. 1) and cross-end (no. 4) borne by these latter groats, a new form of each is introduced, and the four possible combinations of these are all found used with two further styles and sizes of lettering with their various broken letters. To emphasize that the combinations of crown and cross-end are intended to have some significance, the few groats found with crown no. 1 and cross-end no. 4, that is, the crown and cross-end of the latest scallop groats, all have a pellet beneath the right arm of the cross over the orb of the crown (Pl. XX, 13).

In spite of this, however, it seems doubtful whether these crowns and cross-ends were used in any particular order, as the evidence of the mules between

these III_B pansies and the escallops on the one hand and the III_C pansies on the other is hopelessly contradictory. The three escallop/pansy mules noted, all have reverses of the new type with cross-end no. 5, as has also the solitary III_C/III_B pansy mule (B.M.). The two III_B/III_C mules on the other hand,

Lettering B, C, D and E.

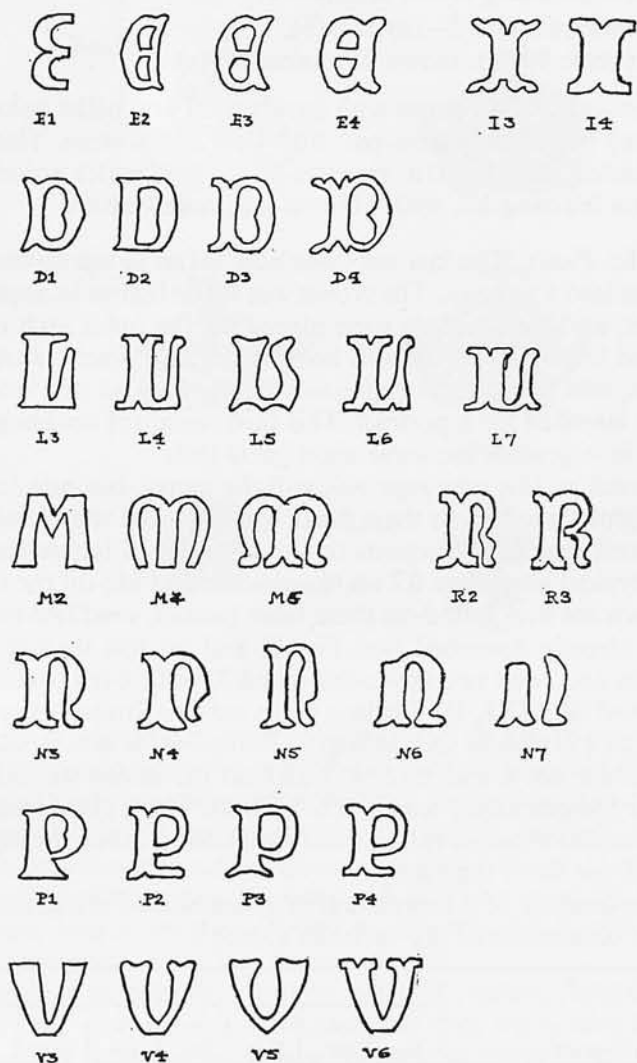


FIG. 6.

which are from the same obverse die having a modified form of crown no. 1 without the pellet [this has the upper of the two bands slightly thicker than the lower, a form not noted on any true coin] have reverses distinguished by the new III_C lettering (E2) including M5, and both have cross-end no. 7 with no broken letters (Pl. XX, 14).

The three forms of lettering appearing on these groats make a complex

picture even more complicated, but fortunately a certain pattern is observable in their use. The three styles are as follows:

- (a) Normal E1 with large square-ended serifs, usually with broken I and T,
- (b) Slightly shorter less elaborate copies of (a) also with broken I and T,
- (c) Small plain letters with broken I, T and also N.

These forms are generally found as follows:

Crown 1, reverses 4 and 5—(a) and (b).

Crown 2, reverse 4—(b), crown 2, reverse 5—(c).

but as a final puzzle, a IIIB pansy with crown no. 1 and pellet below the cross has been noted which has cross-end no. 4 on the reverse. This reverse is otherwise identical with the IIIC reverses of the two mules noted above, i.e. having the new lettering E2, with M5 and no broken letters.

4. Type IIIC. *Pansy*. The last step was now taken in transforming the old full-faced bust into a portrait. The crown was made lighter in appearance and slightly larger, and small jewels were placed on the outer arch only; pupils were provided for the eyes, the stiff lines of the hair were transformed into realistic curls, and the general expression of the face altered into what was undoubtedly intended for a portrait. This bust remained unchanged until the profile came into general use some eight years later.

The first mark of this new type was still the pansy, but new lettering (E2) was used, slightly larger even than the original E1 and more elaborate, with wavy serifs and central projections to the interiors of letters such as C, D, and O. The typical letters are R2 on the obverse and M5 on the reverse. Two types of crown are also found on these later pansies, modified in general appearance as already described (see Fig. 7) and no less than three types of cross-end, viz. no. 5 and two new ones, 6 and 7, while both rosette and saltire stops were used (Pl. XXI, 1). Further, there are two forms of the pansy mark in type IIIC, as will also be seen in Fig. 7. Form 2 is the late type, being found only with crown no. 4 and reverse 7 and on the mules with the following mark, and is comparatively scarce (Pl. XXI, 2). These two forms were originally considered as separate marks, the former being called the regular cinquefoil and only the latter the pansy.

Here is an analysis of a representative collection of the pansy-mark coins showing the occurrence of the varieties named:

Obverses	Reverses						Total
	4 Ros.	5 Ros.	5 Salt.	6 Ros.	6 Salt.	7 Salt.	
Type IIIB, crown 1	6	..	..	..	..	..	6
" " 2	2	13	..	..	..	..	15
Type IIIC, crown 3	..	..	7	3	2	2	14
" " 4	..	..	1	..	15	11	27

The evidence for the order of these varieties in type IIIC is just as contradictory and puzzling as in the case of type IIIB. If we are to take the stops used as a guide the earliest pansies of type IIIC had the new cross-end no. 6 which continued the IIIB rosettes, and only later was no. 5 revived, to be

followed finally by no. 7, which is in effect a modified form of no. 5 with the swelling at the neck smoothed away. This reasonable arrangement is unfortunately not borne out by the IIIc sides of the three mules described in the preceding section, as the two IIIB/IIIc mules have saltire stops and cross-end no. 7 on the reverses, while the IIIc/IIIB mule has saltire stops on the obverse.

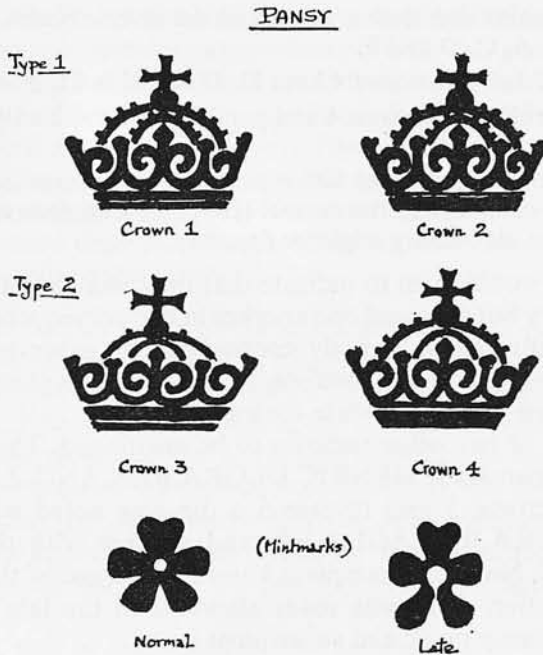


FIG. 7.

At first sight it would seem highly unlikely that the mules between the two types of pansy should have the last type of IIIc reverse, but there are two strong pieces of corroborative evidence. First, the late pansies of form 2 all have cross-end no. 7, as do the mules with the following Leopard's head mark, and this cross-end is continued on all subsequent marks up to and including the greyhound's head. Second, the only reverse dies among the IIIc pansies with no broken letters are those found on the IIIB/IIIc mules and on the normal IIIc coins with crown no. 3 and reverse 7.

As to the broken letters, first noted on type IIIB pansies, these are so varied and complex that were it not for the fact that they occur also on the half-groats and angels, and that a pattern of sorts is traceable in their use, it would be tempting to attribute them all to the use of accidentally broken punches, especially when we see that the various forms of broken C are always accompanied by the equivalent broken D, i.e. the C-punch reversed.

Here is a list of the more obvious forms encountered:

- A = E with bottom serif missing.
- B = C, D with both serifs missing.
- C = C with top, D with bottom serif missing.
- D = C with bottom, D with top serif missing.

- E = I with bottom right serif missing.
 F = I with top right serif missing.
 G = I with bottom left serif missing.
 H = R with bottom left serif missing.
 I = T with bottom left serif missing.

and here is the pattern of use of these forms:

1. The reverse 5 coins with both crowns, and the reverse 6 with crown 3 have A, B, D and E or A, C, D and E.
2. The reverse 6 coins with crown 4 have H, D and H or D, F and H.
3. The reverse 7 coins with crown 4 and pansy no. 1 have I only, and those with pansy no. 2 have D only.
4. The only coins with no broken letters are the IIIc reverses found on the mule with type IIIb obverse, and the normal IIIc coins with reverse 7 and crown 3. (Among these a die identity might be found.)

This evidence would seem to indicate that the cross-ends and crowns were not contemporary but followed one another in correct sequence, but this only deepens the confusion, as it flatly contradicts the other evidence already adduced. It is only possible, therefore, to set down the facts as they occur, and leave someone else to elucidate the mystery.

There are one or two other varieties to be mentioned. The normal legend on the type IIIc pansies is HENRIC.DI.GRA.REX.ANG.Z.FR, but among the coins with crown 3 and reverse 5 a die was noted with the legend: HENRIC.DEI.GRA.REX.AGL.Z.FR, and another with the king's name spelt HENNRIC. No other example is known of the use of the spelling DEI, but the abbreviation AGL was made standard in the late coins with the second form of pansy mark and subsequent issues.

Another obvious change in these late coins and the issues immediately following is an increase in the size of the flan from 24/25 mm. to 26/27 mm., giving all those that have survived unclipped a complete outer edge. No record, however, is known of any mint order to improve the coinage in this way as in the case of the later greyhound's head and crosslet groats. There was also some minor modification to some of the letters, of which the I might be specially mentioned, the wavy serifs of this letter being replaced once again with plain ones. One or two of the IIIc pansies, as with later coins of this type, are found without stops on the obverse. The 'coded' stopping in the inner circles was continued as before, and included an occasional absence of all stops. Lastly, in the Carlyon-Britton collection was a groat with crown no. 4 having no fleurs at any cusp—probably a die-sinker's error. Curiously, however, the reverse cross-end no. 7 is of somewhat modified form.

5. *Leopard's Head Crowned and Lis-issant-from-Rose.* These two rather scarce marks continue the lettering and reverses of the later pansies, and the first-named also continues the broken letters C and D noted on the pansy no. 2 dies. This system of privy marking, however, was discontinued during the currency of the mark, as it is not found on either side of the mules with the L.I.R., nor on any groats of this latter mark.




Though the groats of the latter mark appear entirely regular in their lettering the L.H.C. coins show one or two unusual forms. The first is a peculiarly

shaped C and D punch with vertical serifs (D2) not noted elsewhere. This is found used on several obverses and reverses and is usually broken (**Pl. XXI, 3**). The second, found on a groat with the rare abbreviation AGLI instead of AGL, is a thin tall R recalling R2*b* of the Canterbury half-groats (see Chap. V). On this coin the C's and D's are normal on both outer circles but are also broken.

As the L.H.C. mark is unknown on the angels which, according to the bullion figures, were in continuous production with the groats, it might be thought possible that it was used concurrently with the L.I.R. on the silver. The known groat mules, however, are Pansy/L.H.C., L.H.C./L.I.R., and L.I.R./Anchor, and do not include any Pansy/L.I.R. coins, and it would appear from this that the marks followed one another in the normal sequence on the silver. One curious fact is that, whereas the mules between most marks of this reign are more than usually rare, those between the above-mentioned marks are comparatively common.

6. *Anchor*. The earliest coins of this mark are identical with those of the previous three marks, having lettering E2, the large flan and cross-end no. 7 on the reverse. The anchor mark found on these rare early groats and on the mules with the L.I.R. mark is always in the reversed position (**Pl. XXI, 4**). Very shortly a new cross-end no. 8 was provided, and at the same time the anchor began to appear in the normal position. Only two groats were noted with normal anchor on the obverse and the early reverse with cross-end no. 7, but with the appearance of cross-end no. 8 no pattern can be observed in the position of the anchor as the two types seem to have been used indiscriminately.

The foregoing can be demonstrated by an analysis of specimens in the B.M. and Lingford collections, viz.

	Cross-end 7		Cross-end 8			Total
		Diff.			Diff.	
Lingford	3	1	8	15	14	41
B.M.	4	1	12	29	19	65

The introduction of cross-end no. 8 brought other changes. The flans were slightly reduced in size once more and the lettering underwent considerable modification, the plain, fairly short serifs being lengthened and elaborated with double notches (E3). In the case of some of the letters, of which the D is a special example (D4), this represents most delicate and beautiful work on the part of the engraver. Coincident, however, with this extra ornamentation of the lettering, the entire effect was spoilt, not only by the careless placing of individual letters, especially on the reverses, but also by the reintroduction of broken letters. Specially noticeable among these are the I, which loses one or both serifs at the bottom, the T, losing one bottom serif, and the E which loses most of the lower part. Another notable irregularity is in the size of some of the letters used, among which may be mentioned the small C, D, and L (L7), and the very large E and S. The N in this alphabet is of the form N2.

Though the great majority of the anchor groats with cross-end no. 8 have

the ornate letters of E3, showing considerable variation in finish with the wearing of the punches, there are in existence a few scarce coins with the original E2 lettering, and N3 in plain form with square serifs and broad uprights (Pl. XXI, 5). These coins were probably struck towards the end of the currency of the mark, as this is the only form of lettering found on the anchor side of the mules with the following greyhound's head mark. These mules always have the anchor on the obverse, and several dies are known used in this way, but though a large number of the normal groats were examined, none of these mule dies were found used on true coins. They are notable not only for the broad plain lettering, but also for the mint-mark, which is always reversed, rather smaller than the normal, and set well above the inner circle.

Similar lettering is also found on the scarce coins with mint-mark on the reverse only (Pl. XXI, 6). Here again at least three obverse dies without the mark were noted, and it is unlikely, therefore, that this was an engraver's error. These dies, incidentally, were certainly among the last anchor dies to be made, as a groat was noted with G.H. 1 mark on the reverse and an obverse from one of the three mentioned dies without mint-mark. This is evidently an Anchor/G.H. 1 mule and not a G.H. 1 groat with mint-mark on the reverse only as might otherwise be imagined (Pl. XXI, 7).

The greyhound's head coins of type IIIC are dealt with separately in the following chapter.

CHAPTER IV. *The Full-face Greyhound's Head and Cross-Crosslet Groats*

So far an orderly sequence of types has been encountered representing the slow evolution of the royal bust from the conventional medieval style of the previous 150 years toward the Renaissance ideal of an actual portrait. In the case of the next two marks to be examined, the greyhound's head and cross-crosslet, we come to a period of more varied experiment, when three forms of crown were used in the same sequence on both the marks, while at the same time an entirely different type of portrait, the profile, was being developed. The types of crown employed were the double-arched type IIIC already met with, and differing forms of a new-style crown with a wide single arch, classified as Type IV. The profile groats, which have this latter form of crown, but of a different style, are placed in a class of their own, Type V, and will be dealt with in a separate chapter.

1. *Greyhound's head.* This mark is found in two distinct forms. The earlier, which Mr. Carlyon-Britton, who first recognized them, has called G.H. 1, has a large head and neck, with small eye and ears. G.H. 2 on the other hand has a small head and neck, large eye, and long ears extended backward and usually folded downward.

The groats of the G.H. 1 mark all have the double-arched crown of type IIIC, and reverses with cross-end no. 8, like the preceding anchor-mark coins. The lettering, however, is the normal E2 as used on the early anchor coins, and not the specially ornate E3 nor the plainer E2 of the later anchors. As to the stops, these are saltires as before, but they are used in an unusual way,

and, combined with the N's in LONDON, appear to have been a very elaborate form of privy marking. As this was continued on the early G.H. 2 groats, however, an account will be postponed until these latter are described.

Before passing on to the G.H. 2 mark, there are one or two varieties on the G.H. 1 groats which might be mentioned. In addition to the rare early coins with mint-mark on the reverse only, mentioned at the end of the last chapter, a groat with the spelling hENIC has been noted. This has a saltire before the mint-mark on the reverse. There is also a groat without stops on the obverse. This is unusual in view of the importance apparently attached to the use of the stops at this time. Finally there are the mules with the various types of G.H. 2 obverses and reverses, and with the rose reverses which have the same cross-end and lettering as the earlier G.H. 2 groats. These will be fully described when dealing with the latter coins, or will be found listed in the table of known types at the end of the section.

Lettering F

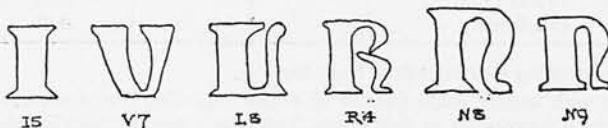


FIG. 8.

The first groats with the G.H. 2 mark are obviously those having the same double-arched crown as the G.H. 1 coins, but they are immediately distinguished from the latter, apart from the form of mark, by the new smaller, broad and plain lettering (F) (see Fig. 8). The reverses are further distinguished by a new cross-end with plain instead of wavy termination (no. 9). These G.H. 2 dies are found muled both ways with G.H. 1 dies, and are also known with reverses having the mint-mark rose. These reverses are a remarkable feature of the greyhound's head groats. They seem to have been made for use with the early G.H. 2 obverses just described (type IIIc), as they are identical with the normal reverses of the type except for the mint-mark, having lettering F and cross-end no. 9. Six dies have been noted, and they are found used not only with the IIIc G.H. 2 obverses but also with G.H. 1 obverses, and with one of the single-arch type G.H. 2 obverses to be described. The first two mentioned types are not especially rare, but only four or five specimens of the last-mentioned have been traced, all from the same obverse die with abnormal fleurs.

Now as to the stops on these type IIIc greyhound's head groats. They are found in three forms or 'states', i.e. the normal saltire of ornamental form (A), the same with one arm broken off (B), and ditto with three arms broken off (C). This last type was noted by Mr. Carlyon-Britton in his article 'The Last Coinage of Henry VII' where he calls them 'peculiar'. As for the N's in LONDON, four types are used with the G.H. 1 mark, namely, N3 as on the previous marks, and three new ones: N5, a tall, thin letter; N6, a plain N with no serif at top left, and N7, a broken form of N6 (Fig. 6); and two on the G.H. 2 reverses, i.e. N8, a very large N, and N9, a plain letter something like

N3 (Fig. 8). The obverse N's are unchanged throughout, G.H. 1 having a rather cramped form of N3, and G.H. 2 using N9.

The following is a list of fifteen typical groats showing the pattern of N's and stops employed:

	<i>Reverse N's</i>	<i>Obv. and Rev. stops</i>
Mule, Anchor/G.H. 1	3	A/A
" " " " " "	5	A/C
G.H. 1 on reverse only	3	A/A
G.H. 1	3	B/A
" " " " " "	3 in LON, 5 in DON	B/C
" " " " " "	5	B/C
" " " " " "	6	B/B
" " " " " "	7	B/C
G.H. 1/Rose	9	A/A
G.H. 1/G.H. 2	9	A/A
G.H. 2-IIIc	8	B/B
" " " " " "	9	B/A
G.H. 2-IIIc/Rose	9	A/A
G.H. 2-IVa/G.H. 1	3	A/A
G.H. 2-IVa/Rose	9	A/A

The following interesting points emerge from this list:

1. The obverses with normal stops (A) are all mules, including the abnormal obverse without mint-mark which is probably an anchor die. This might seem to demolish the normal view of mules, viz. that they are chance combinations of obverse and reverse dies, using up one or other which has become obsolete.
2. The special stops (C) appear only on the reverses. Mr. Carlyon-Britton mentions but does not illustrate a groat with C-type stops on the obverse, but it has not been possible to trace this.
3. There is a pattern for the use of the stops which appears to be: A with N3 or N9, B with N6 or N8, C with N5 or N7. This is not immutable or perhaps mistakes were occasionally made, as an undoubted N6 with special stops is known.

The final period of experiments with the form of crown terminating in the appearance of the type with wide single arch (type IV) has now been reached. There are two forms of this and the first to appear was the single-bar with four small crockets as jewels (IVa), as this is the only Type IV obverse found with the plain lettering F. Apparently only one die of this first type was made with normal fleurs at the cusps, and the few coins struck from it which have so far been found are mules with G.H. 1 reverses. The obverses more commonly known have a special large fleur made with the punch used for the lis on the experimental profile crown, a fact first noted by Mr. Carlyon-Britton. They are still scarce if not rare but three dies have been noted. The normal reverse found with these is the same as found with the IIIc G.H. 2 groats, but they are also known used with both G.H. 1 (Pl. XXI, 8) and rose reverses (Pl. XXI, 9), but not with the later G.H. 2 reverses with lettering G. One curious feature of some of the normal reverses is the incorrect spelling ADIVTO/EV'MEV (three dies noted). One of these is also found with a G.H. 1 obverse.

The second form of single-arch crown making up type IV on the G.H. 2 groats has a double bar and six small uprights as jewels (IVb). For these obverses a new style of lettering (G) was used, with taller, more graceful letters, moderately ornamented and serifed (Fig. 9). The reverses made for these obverses have the same lettering, and at first they had the old cross-end

no. 9 (Pl. XXI, 10). Just before the change of mark to the cross-crosslet, however, the new type 10 with splayed termination was introduced. The groats with G.H. 2 and this latter reverse are rare, and that very few dies were made is evidenced by the fact that the very rare crosslet/G.H. mules are known with both forms of reverses (cross-ends 9 and 10).

Lettering G.



FIG. 9.

One very obvious feature of these late G.H. 2 groats with lettering G is the complete beaded outer edge which they all display, in contrast to the earlier coins whose flans are usually smaller and often irregular, due as frequently to poor workmanship as to the clipping evil. These groats, therefore, must be the first-fruits of the Act of 25 January 1504, which prescribed a full outer circle on all coins, and which will be fully discussed in the chapter dealing with the question of the dating of marks and types.

Summarizing the many varieties of the greyhound's head mark, we have:

Type	Obverses			Reverses				
	Crown	Mark	Let.	G.H. 1 8 E	G.H. 2 9 F	Rose 9 F	G.H. 2 9 G	G.H. 2 10 G
IIIc	Double arches, outer jewelled . . .	G.H. 1	E	x	x	x	..	..
"	" " " . . .	G.H. 2	F	x	x	x	x	..
IVA	Single-arch, 1 bar, 4 crockets . . .	G.H. 2	F	x	..	..	..	..
"	" (Special fleurs)	G.H. 2	F	x	x	x	..	..
IVb	Single-arch, 2 bars, 6 uprights . . .	G.H. 2	G	..	x	..	x	x

2. *Cross-Crosslet*. This mark was the last to appear on the full-face groats, and it is found on obverses with the three types of crown so far described, viz.

1. Double arches, outer jewelled,
2. Single arch, single bar, 4 crockets (normal fleurs),
3. Single arch, double bar, 6 small uprights,

plus two rare varieties of nos. 2 and 3, viz.

4. Single arch, double bar, 4 crockets,
5. Single arch, double bar, 6 crockets.

The fact that the three main types of crown above are also found on G.H. 2 groats, would normally lead one to suppose that the two marks must have been in concurrent use, especially as the three forms of crown represent definite steps in the evolution of the portrait groat. All the crosslet groats, however, are of the type with beaded edge, having lettering G and reverse no. 10, exactly as the very last G.H. 2 groats, and there can be little doubt that they followed these latter in the normal way.

As to the order of the five forms of crown listed, there are fortunately many minor varieties, constituting an elaborate privy-marking system, by which it is possible to put them in their probable order of appearance. These varieties can be divided into two classes, viz.

1. Variations in form and breaks in certain letters.
2. Variations in the obverse legend and stopping.

Taking first the alphabetic variations, there are five key letters concerned in the changes in form, viz. E, F, N, R, and S, while the breaks occur on the letters E, F, I, N, and R, a formidable list. The following table shows how alphabet G has been subdivided to cover the changes noted, the *a* numbers indicating broken letters:

G1 has F1, E5 <i>a</i> , and R5	}	G1 and G2 have N1 and S1
G1 <i>a</i> has F1, E5 <i>a</i> , R5, and broken I		
G1 <i>b</i> (reverses only) has E5, R5, and broken I		
G2 (obverses only) has F2, E5 <i>a</i> , R5 <i>a</i> , and broken N		
G3 <i>a</i> has F2	}	G3 and G4 have N2 and S2
G3 <i>b</i> has F3		
G4 <i>a</i> has F3, E6, R5, and no broken letters		
G4 <i>b</i> (obverses only) has F2 <i>a</i> , E6, R5, and broken I		

As to the form of the obverse legend, the key word appears to be ANGLIE, and its various abbreviations were apparently used in a fixed order with each type of crown and mint-mark. On the opposite page is a list of the forms so far encountered.

As will be seen, there are one or two gaps which it may be possible to fill when further specimens turn up. On the other hand, it is quite possible that ANGLI was not used until the single-arch crosslets, and that AGL only appeared on the solitary die with double bar and four crockets before the final full-face issue. This latter would appear to have been contemporary with

the first regular profile crosslets, which also have AGL. The change from the 4-crocket G.H. 2 to the 6-upright form, and the change from the latter to the double-jewelled crosslets, both apparently occurred when ANGL was being used.

<i>G.H. 2</i> <i>Single arch,</i> <i>single bar,</i> <i>4 crockets</i>	<i>G.H. 2</i> <i>Single arch,</i> <i>double bar,</i> <i>6 uprights</i>	<i>Crosslet</i> <i>Double arch</i>	<i>Crosslet</i> <i>Single arch,</i> <i>single bar,</i> <i>4 crockets</i>	<i>Crosslet</i> <i>Single arch,</i> <i>single bar,</i> <i>4 crockets</i>	<i>Crosslet</i> <i>Single arch,</i> <i>double arch,</i> <i>6 uprights</i>
—	—	—	ANGLI (G3b)	—	ANGLI (G4a)
—	—	—	ANGLIE (,,)	ANGLIE (G4a)	—
—	ANGL (G1)	ANGL (G2)	ANGL (,,)	ANGL (,,)	ANGL (G4b)
—	AGLIE (,,)	AGLIE (G3a)		AGLIE (,,)	AGLIE (,,)
		Single arch, Double bar, 4 crockets		Single arch, Double bar, 6 crockets	
AGLI (F)	AGLI (G1, 1a)	—		AGLI (,,)	AGLI (,,)
—	—	AGL (G3a)		—	AGL (,,)
ANGL (F)	ANGL (G1a)	—		—	—

If we now apply these findings to a representative selection of groats, including the rare mules between the marks, we obtain the following picture, from which it is evident that the three main forms were used in the same order as in the G.H. 2 mark. Whatever the significance or purpose of these privy markings and the curious repetition of crown forms, they certainly enable the dies to be placed in their probable order of use, and later on it will be possible also, by their aid, to put the experimental profile groats in sequence.

G.H. 2 (Single bar and 4 crockets):

- | | | |
|-----------------------------------|---|-----------------------|
| 1. AGLI.Z.FR, single saltires, F. | { | Rev. G.H. 1 and Rose. |
| 2. ANGL.Z.FR, ,, F. | | Rev. 9, DIVTO, F. |
| | | ,, 9, ,, F. |

G.H. 2 (Double bar and 6 uprights):

- | | |
|------------------------------------|-------------------------|
| 3. ANGL.Z.FR, single saltires, G1. | Rev. 9, DIVTO, F. |
| 4. ,, ,, ,, | DIVTOR, G1. |
| 5. AGLIE.Z.FR, ,, ,, | ,, ,, ,, also DIVTO, F. |
| 6. AGLI.Z.FR, ,, ,, | ,, ,, ,, |
| 7. AGLI.Z.FRA, ,, G1a. | ,, 10, DIVTOR, G1b. |
| 8. ANGL.Z.FR, ,, ,, | ,, ,, ,, |
| 9. ANGL.Z.FRA, ,, ,, | ,, ,, ,, (RCB) |

Crosslet (Double-arched crown):

- | | | |
|--------------------------------------|-----------------|------------------|
| 10. ANGL.Z.FRA, single saltires, G2. | Rev. (G.H. 2) { | 9, DIVTOR, G1. |
| 11. ,, ,, ,, | | 10, DIVTOR, G1b. |
| 12. AGLIE.Z.F, double saltires, G3a. | | ,, 10, ,, ,, |
| 13. AGLIE.Z.FRA, ,, ,, | | ,, DIVTO, ,, |

Crosslet (Double bar and 4 crockets):

- | | |
|--------------------------------------|----------------------|
| 14. AGL.Z.FRA, double saltires, G3a. | Rev. 10, DIVTOR, G3. |
|--------------------------------------|----------------------|

Crosslet (Single bar and 4 crockets):

- | | |
|--|----------------------|
| 15. ANGLI.Z.FRA, single saltires, G3b. | Rev. 10, DIVTOR, G3. |
| 16. ANGLIE.Z.FR, ,, ,, | ,, ,, ,, |
| 17. ANGL.Z.FR, ,, ,, | ,, ,, ,, |
| 18. ANGLIE.Z.FR, ,, G4a. | ,, DIVTO, G3. |
| 19. ANGL.Z.FR, ,, ,, | ,, ,, G4a. |
| 20. AGLIE.Z.FR, ,, ,, | ,, ,, G3. |

Crosslet (Double bar and 6 crockets):

- | | |
|--|-----------------------|
| 21. AGLI.Z.FRAN, single saltires, G4a. | Rev. 10, DIVTOR, G4a. |
|--|-----------------------|

Crosslet (Double bar and 6 uprights):

22. ANGLI.Z.F, single saltires, G4a.	Rev. 10, DIVTOR, G3. (BM)
23. ANGL.Z.F, " G4b.	" "
24. AGLIE.Z.F, " "	" DIVTO, G4a.
25. ANGLI.Z.FR, " "	" DIVTOR, G3.
26. AGL.Z.FR, " "	" " G4a.

This list presents some interesting features. Firstly we see that, on the obverses, the abbreviations of FRANCIE may have had some privy significance. With few exceptions the forms F, FR, and FRA are found grouped together. Similarly, the use of single and double saltires seems to have been purposeful, only the obverses with lettering G3a having the double form. On the reverses, however, the use of DIVTO and DIVTOR, though apparently purposeful, does not seem to observe any particular pattern. Secondly, though the obverse lettering preserves a regular sequence from G1 to G5 the reverses of the later crosslets are found equally with forms G3 or G4a.

To deal individually with the listed coins of the crosslet mark, there are first the very rare mules with the G.H. 2 mark. These are only known with crosslet obverses having the double-arched crown and the two forms of G.H. 2 reverses having lettering G, i.e. with cross-ends nos. 9 and 10, which, incidentally, fixes the position of these types as the first and last of their respective marks. Two crosslet dies were used in these mules, which are also the only known dies with lettering G2, that is with the curious R resembling a K. One of the two obverse dies has the curious spelling hENRIKIC for the king's name, the first R being normal and the second and subsequent R's of the broken type (**Pl. XXI, 11**). It seems possible that the incorrect use of an unbroken R was noticed after hENRI had been struck on an otherwise completed die, and the misspelling was the only way to avoid scrapping it. The other die reads hENKIC normally (**Pl. XXI, 12**). True groats from both these dies are also known, having lettering G2 and cross-end no. 10.

The above-noted two crosslet obverse dies have ANGL for ANGLIE. The more common obverses with the double-arched crown have the spelling AGLIE and new forms of N and R constituting lettering G3a. These groats are still scarce if not rare. A still rarer obverse with this lettering is the solitary die with the single-arched crown having the arch made of two bars and decorated with four crockets as jewels. This has the spelling AGL, and was apparently the first of the single-arch crosslet dies (**Pl. XXI, 13**).

Next in sequence come the common 4-crocket crosslets with the thick single bar to the arch of the crown. The earlier specimens of these have the same lettering as the preceding coins except that the F is now F3, and this variety has been called G3b. As there is no F in the reverse legend, the reverse lettering of these coins is identical to that on the 3a reverses, and both of these can therefore be called simply G3. The later obverses with this crown show a further modification in the lettering with the introduction of the unbroken E with pointed back (E6). This has been called G4a.

It will be seen that obverses with the spelling ANGLIE and ANGL are both known with lettering G3b and G4a. It is only on these crosslet groats that the full form of the word ANGLIE is found, and as it overlaps the use of the form ANGL, normally found in this position in the sequence, it may have been some special additional issue that was distinguished in this way.

With the new lettering G4 and the spelling AGLIE, and contemporary with the last coins of the preceding type, we have another rarity of these series, namely the die with the single arch having a double bar and six crockets as jewels (**Pl. XXI, 14**). The reverses found on the five groats noted from this die also have the new E6, and are therefore classed as G4. This was the first use of this lettering on reverses, and it will be seen that later coins continued for some time with G3 reverses.

Finally we come to the second common group of full-faced crosslet groats, viz. those with the single-arched crown having a double bar but six small uprights as jewels. The obverses with ANGLI are the only ones of this type having G4*a*, which fixes the position of this variety of spelling. The rest have the broken version of F2, a new R, and the broken I, which lettering has been called G4*b*. The ANGL and AGLIE groats still have the earlier G3 reverses, and only for the forms AGLI and AGL was the later style G4*a* employed. G4*b* was apparently never used on reverses. This last spelling AGL and the lettering G4*a* were used for the new profile groats which were replacing the full-faced series at this time.

CHAPTER V. *The Full-Face Half-Groats*

It should be needless to say that the Tower half-groats of Henry VII present nothing like the variety nor, of course, the problems of the groats. Owing to the greater difficulty of production and the smaller profits involved, it was always the practice of the mintmasters to strike the minimum number of smaller coins that they could get away with, in spite of the protests of the general public and the orders of king and Parliament. The position for the public would, in fact, have been most serious had it not been that, during most of this reign, the archbishops held minting rights up to the half-groat. The result was a comparatively large issue of halves from Canterbury with lesser amounts from York, helped at the latter city by small issues from the Royal mint there.

LONDON AND YORK. The output of the two royal establishments will be considered first:

Type I. A few very rare London halves exist (5 noted) with the true open crown found on the halves of earlier reigns, i.e. with circular openings below the jewels, not to be confused with the later open crown on coins with broken tressure. These rare halves have the lis on rose mark¹ on the obverse, saltire stops, cross-end no. 1, and lettering approximating to alphabet A of the groats. The face is the heavy broad-chinned type with the wide conventional curls also found on the rare halves of Richard III (**Pl. XXII, 1**).

Type IIIA. Several years must have passed before any further halves were issued from the Tower; at least none have survived corresponding to the later open-crown groats with mint-mark rose, nor to the plain double-arched-crown groats of the 'no-mint-mark' or heraldic cinquefoil series. The first halves with the double crown, having traces of jewellery on the outer arch,

¹ It is a true lis on rose, as most of the rose is visible.

are the very rare specimens with the escallop mark. On the obverse this mark is placed over the cross but most of the few coins known have been so clipped that it is invisible, and can only be seen before POSVI on the reverse, and not always then. They are definitely identifiable, however, by the unusual feature of rosettes at the tressure cusps, imitating the rare groat die of this mark already noted. They have trefoil stops like the escallop groats of the middle period, cross-ends similar to no. 3, and lettering also approximating to that of the contemporary groats (D). The bust, like that of the groats, is provided with less conventional features and hair, and this bust was retained on all subsequent full-face halves both of London and York, as well as of Canterbury (Pl. XXII, 2).

Type IIIb(a). Very shortly after this small issue of escallop halves and probably more or less coincidental with the opening of the royal mint at York, it was apparently decided to cease using the normal mint-marks and employ the lis alone for the half-groats. The first coins with this mark, struck both at the Tower and York castle, are similar to the rare escallop-mark halves and have trefoil stops, but nothing at the tressure cusps and often a lis on the breast. The lettering is still the D of the middle-period escallop groats. The reverses have the same cross-ends as type IIIA, but with a central lozenge enclosing a pellet, and the stops are trefoils or none, except in the case of the York coins which are usually found only with reverses of the following type IIIb(b) having the later lettering EI and rosette stops in the outer circle (Pl. XXII, 3).

Type IIIb(b). The other and more common type of half-groat with arched crown, mm. lis, from the royal mints, has the rather more ornate letters of alphabet EI and the rosette stops of the late escallop and early pansy groats. Both types (a) and (b) are rare from London, but more common from the York mint, and the latter are found more often with reverses of the next type IIIc(b).

Type IIIc. The last type of royal full-faced half-groat has the bust as before but the double arches have been removed leaving a large open crown breaking the tressure, with the lis mint-mark directly above it. The early coins of this type (IIIc(a)), which are known only from London, have the same style and size of lettering as the previous issue and rosette stops in the outer circle of the reverse only (Pl. XXII, 4). Shortly, however, the dies were made slightly smaller and the lettering considerably reduced in size (IIIc(b)), though remaining of the same style. The rosette stops now appeared also in the reverse inner circle. The reverses have the central lozenge and pellet and cross-ends as before. These latter coins are fairly common, both from London and York (Pl. XXII, 5), and mules with obverses of (a) and reverses of (b) are also frequently found. Broken letters are a feature of this type, as on the contemporary groats.

CANTERBURY. As already mentioned the most prolific and varied issue of half-groats was made from Canterbury during the episcopacy of Archbishop Morton who held the see from 1487 to 1500. The dies for these, like the York dies, were prepared at the Tower, but they differ in minor details of design

from the royal issues. They may be divided into two series: (1) the scarce early coins of types I and II, with mint-mark tun for Morton, and the reverse cross having M in the centre, and (2) the main issue consisting of type III. On these latter, the mint-marks employed on the obverses are the lis and tun, singly or in combination, with lis, tun, or nothing on the reverses, and these marks together with the changes in individual letter shapes and the privy marking by means of broken letters are the materials available for determining the sequence of dies. Unfortunately these halves have suffered very severely from the clipping evil,¹ and this, combined with the complication of mint-marks and broken letters, makes the task of classification rather difficult.

Type I. The first halves from Canterbury with mm. tun on obverse only, have the open crown, the first bust as on the London coins of this type, trefoil stops, and crosses by the neck, equivalent to the Tower groats of mint-mark rose. The reverses made for these first dies have either a trefoil after POSVI and before TAS (Pl. XXII, 6), or no stops, and, of course, the M in the centre of the cross. The obverses, however, are also found with reverses of the next type IIa. Both kinds are rare (Pl. XXII, 7).

Type II. Two closely related types of half-groat constitute this type, having no mint-mark, and crown with double arches, unjewelled. The busts and lettering are as type I, and they are undoubtedly contemporary with the 'no-mint-mark' groats. Type IIa has pellet stops, crosses by the neck, and an 'eye' after GRA, while the corresponding reverse has an eye after POSVI and saltire after DEVM (Pl. XXII, 8). It is this reverse which is occasionally found with an obverse of type I. Type IIb is similar, but has trefoil stops on the obverse, the crosses are in saltire form, and there is no eye after GRA. The reverse usually found with this type has the 'eye' before instead of after POSVI, but is otherwise identical with that of IIa, with the M in the centre of the cross. There are also mules of IIa/IIb.

Type III. These very common coins all have the bust with crown of two jewelled arches and the less conventional hair which is typical of the escallop and early pansy groats. The mint-marks, as already stated, are the tun and lis. For classification purposes they have been divided into four groups according to the stops and lettering, and especially according to the broken letters found on them.

In group A the obverses are apparently earlier than the reverses as they have lettering D (without the Roman M) and the trefoil stops of the middle period escallop groats, whereas the reverses found with them have lettering E1 and the rosette stops of the late escallops. It is on these reverses that we find the first broken letter, the T with right bottom serif removed; on the same reverses also occurs the curious R (R2a) with the leg turned in instead of out. This is found also on some London halves and on rare angels of the escallop mark but not on the groats (Pl. XXII, 9, 10).

Group B obverses are the first to show the lettering E1 and rosette stops, and the earliest of these also have the curious R. The tun mint-mark when not combined with the lis in this group is placed indifferently above or beside the

¹ A representative sample of 100 coins showed an average deficiency of 2½ gr. = 10 per cent.

cross. Later it is invariably in the latter position. Broken letters now appear on the obverses as well as on the reverses. All these rosette-stopped coins are less common than the later no-stop issues (**Pl. XXII, 11**).

The halves of the third group, C, represent the most copious issue from Canterbury, and the normal coins without stops are very common indeed (**Pl. XXII, 12**). However, there are two sub-groups among them which are rare and very rare, namely those with saltire stops (**Pl. XXII, 13**) and the mystery coins with tun and pansy marks preceding the king's name. Of the latter, in fact, only four coins, all from the same obverse die (one in B.M.), have been traced (**Pl. XXII, 14**).

This unique appearance of one of the regular Tower marks on coins which would normally have been struck at Canterbury has been ingeniously explained by Mr. Carlyon-Britton. He suggests that it was employed to distinguish coins struck at the Tower from bullion which was awaiting coining at Canterbury when Archbishop Morton died in September 1500. It is true, of course, that the lis and not the pansy was being used on Tower half-groats at this time, but the lis had already been employed in conjunction with the tun at Canterbury, and would not, therefore, have sufficiently differentiated this special issue. If this explanation is correct, however, two premisses must be accepted:

1. That the pansy mark was current at the Tower in September 1500.
2. That the tun and pansy coins were the last full-faced issue at Canterbury.

Neither of these propositions can reasonably be maintained.

As for the first, it will be shown in the chapter on dating that it is almost certain that the pansy mark was superseded by the leopard's head crowned and the lis-issuant-from-rose at Michaelmas 1499 or a year before Morton's death. Actually, to prepare the new dies and coin the Canterbury bullion transported to the Tower after this event might well have taken another three months at least, extending the period necessary for the currency of the pansy mark to early in 1501, a time completely at variance with the evidence. But we have another and surer answer to the problem and this is found in the coins themselves.

Hitherto, except for one die reading AGLI and one or two reading ANG the English title has been invariably abbreviated to ANGL, which is the form found on the tun and pansy halves. There are, however, quite a number of halves showing the abbreviation AGL, and though about half of these have the normal characteristics of group C, the remainder obviously belong to a group of their own, later in sequence than any other Canterbury halves, and this has been called D. First, they show no broken letters on either obverses or reverses, if we except a possible broken bottom serif on the I. It will be noted in the summary that the F on the obverse and P on the reverse are broken throughout groups B and C; on these coins the two letters are perfect for the first time since the earliest rosette-stopped coins.

Second, though the letters on the obverses of these halves show little individual difference from the normal E2, on the reverses the O now has a central bar giving it the curious appearance of a serif-less E. But most decisive of all is the cross-end. Hitherto all the halves have shown a form

equivalent to no. 5 of the groats, that is with a swelling at the necks of each arm, and two horns at the ends enclosing a circle, typical of early and middle-period pansy groats. These halves of group D on the other hand have a cross-end identical with no. 7 of the late pansy and leopard's-head groats, that is with no swelling at the necks and the horns open, enclosing only part of the circle (**Pl. XXII, 15**). If it is remembered also that alterations of design are often found somewhat later on the halves than on the groats, there seems little doubt that these coins represent the output of the last year of Morton's episcopacy, and confirm that the pansy mark was superseded by the leopard's head and lis-issant-from-rose some time before his death.

Bearing in mind that each group of halves is distinguished by the lettering and stops and also by the broken letters found on obverse and reverse, the exact position in the die sequence of those with saltire stops and with the tun and pansy marks can easily be determined, viz. towards the end of group C, as shown on the summary which follows. This position is further confirmed by the reverses found with them. In the case of the eight specimens of the halves with saltire stops examined, the reverses are of types C8 and C10, while the four tun and pansy coins show reverses of B7 (one) and C10. It will be noted that none has a D-type reverse, i.e. with the latest type cross-end no. 7.

We are, of course, still left with the problem of what the extraordinary tun and pansy mark signified, but this is just another of those puzzles with which the hammered coinage abounds, and must await some inspired guess or documented solution in the future.

Here is a summary of the Canterbury half-groats; type III:

*Obverses**A. Lettering D, trefoils (M1/R1b)*

- | | |
|--------------------------|-------|
| 1. Lis | _____ |
| 2. Tun and lis | _____ |

B. Lettering E1, rosettes (R2)

- | | | |
|--------------------------|---------|--------|
| 3a. Tun over cross | } (R2a) | _____ |
| 3b. Tun beside cross | | |
| 4. Tun and lis | | C.D.F. |
| 5a. Tun over cross | } " . " | |
| 5b. Tun beside cross | | |

C. Lettering E2, no stops, ANGL (R3)

- | | |
|----------------------------------|--------|
| 6. Tun, rosettes (R2b) | G.H.F. |
| 7. Tun, no stops (R2b) | " |
| 8. Tun, " (R3) | " |
| 9. Tun, saltires | " |
| 10. Tun and Pansy | " |
| 11. Tun (AGL) | " |

D. Lettering E2, no stops, AGL

- | | |
|-------------------|-------|
| 12. Tun | _____ |
|-------------------|-------|

*Reverses**A. Lettering E1, rosettes (M2/R2)*

- | | |
|--|-------|
| 1. Lis, rosettes in i/c | _____ |
| 2. Lis, nothing in i/c (R2a) | A. |

B(a). Lettering E1, rosettes (M3/R2b)

- | | |
|-----------------------------------|--------|
| 3. Lis, rosettes in i/c | B.C.E. |
| 4. Lis, nothing in i/c | " |
| 5. No mint-mark | " |

B(b). Lettering E1, no stops (M3/R2b)

- | | |
|---------------------------|--------|
| 6. No mint-mark | G.H.E. |
| 7. Tun | " |

C. Lettering E2, no stops, cross-end 5 (M4/R3/T2)

- | | |
|-------------------------------|--------|
| 8. Tun (M3/R3/T2) } | G.H.E. |
| 9. Tun } | |
| 10. Tun | I.E. |

D. Lettering E2, no stops, cross-end 7

- | | |
|-------------------|-------|
| 11. Tun | _____ |
|-------------------|-------|

(Broken letters indicated above:

- A = T bottom right.
 B = T both bottom serifs.
 C = R bottom left.
 D = H top.

- E = P bottom right.
 F = F bottom right of upright.
 G = N top left.
 H = E top right.
 I = E bottom.)

KEY TO PLATES

PLATE XIX

CHAPTER I:

Type I:

1. Halved lis and rose/halved sun and rose (EJW ex RCB 1921).
2. Lis on rose 1/lis on rose 1 (EJW).
3. Lis on rose 2/lis on rose 2 (RCL 3193).
4. Lis on rose 3/lis reverse (BM).
5. Lis on rose 3/cross-fitchy reverse (EJW).
6. Lis on sun and rose both sides (EJW).
7. Lis on obverse (BM).
8. Cross fitchy, die 1/reverse I (EJW ex FAW 1913).
9. „ die 2/reverse II (EJW).
10. „ die 3/reverse III (EJW).
11. Rose/lis on rose (EJW).
12. Rose on obv. only, obv. as No. 11, reverse as No. 10 (WJP).
13. Rose both sides, curious double mark on obverse (BM).
14. Rose, star stops on obverse (EJW).

PLATE XX

CHAPTER II:

Type II:

1. No mint-mark, crown 1, star stops on reverse (WJP).
2. „ crown 2, trefoils by crown, pellet after ADIVTORE (EJW).
3. Heraldic cinquefoil, cross 1, pellet by cross/no mint-mark, pellet after ADIVTORE (EJW).
4. „ cross 2, 4 fleurs, no stops in i/c (BM).
5. „ „ 6 fleurs, trefoils in i/c (EJW).
6. „ „ 7 fleurs, „ (WJP).
7. „ Sovereign groat (Hunterian Collection).

CHAPTER III:

8. „ King's name in new letters (WJP).

Type II/IIIb:

9. Heraldic cinquefoil/Escallop mule (BM).

Type IIIa:

10. Heraldic cinquefoil (EJW).

Type IIIb:

11. Escallop, rosettes in spandrels (EJW).
12. Escallop/Pansy mule (EJW).
13. Pansy, crown 1 with pellet by cross (EJW).
14. Pansy, IIIb/IIIc mule (EJW).

PLATE XXI

Type IIIc:

1. Pansy, crown 3, reverse 6 (EJW).
2. „ crown 4, late mint-mark, reverse 7 (EJW).
3. Leopard's Head Crowned, special C and D (EJW).
4. Anchor, reverse 7 (EJW).
5. „ reverse 8, late plain letters (EJW).
6. Anchor on reverse only } Same obverse die. (AHB 1940).
7. G.H. 1 on reverse only } (EJW).

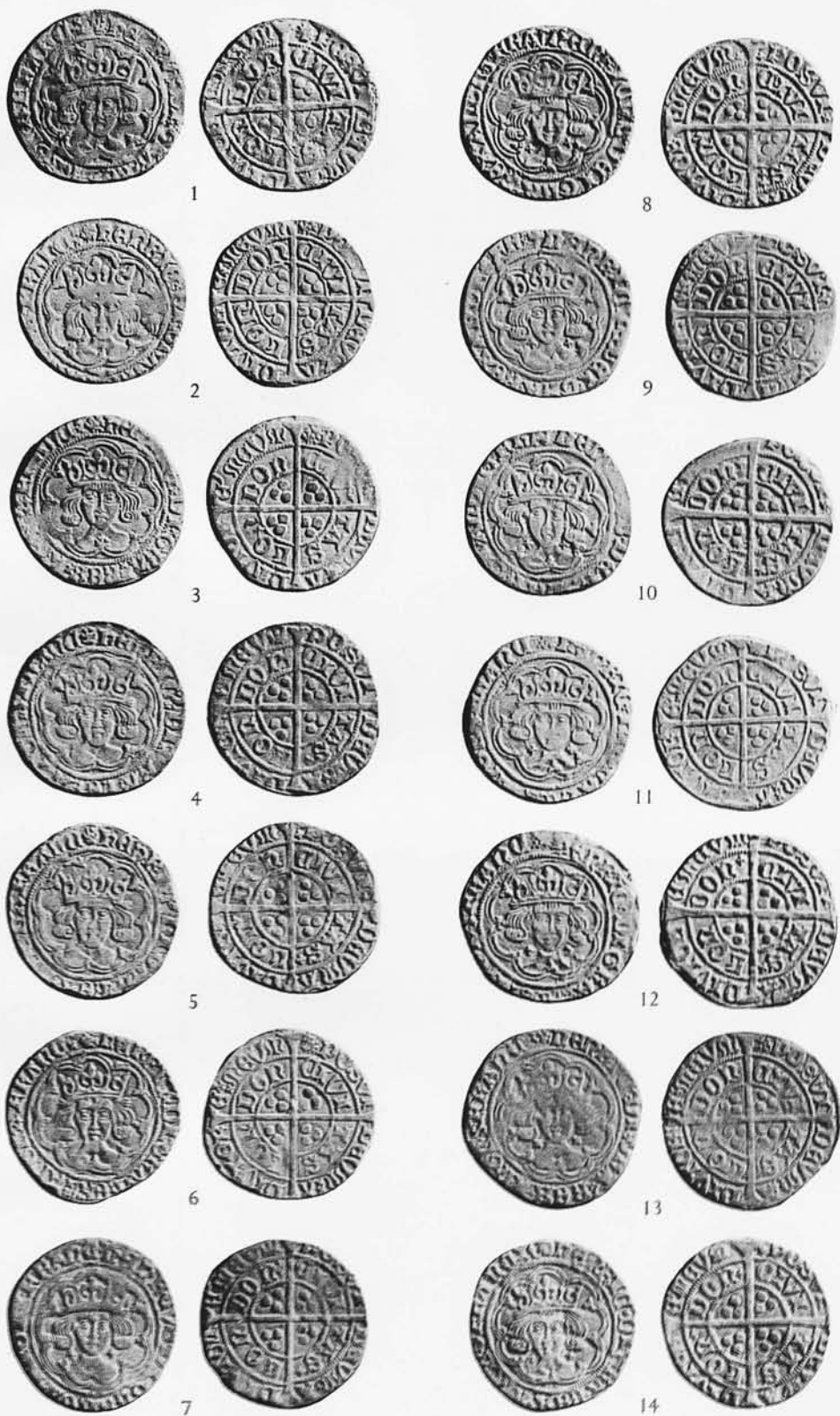
CHAPTER IV:

8. G.H. 1/G.H. 2, lettering E/F (EJW).
9. G.H. 2/Rose, special fleurs, lettering F/F (EJW).
10. G.H. 2 both sides, type IVb, lettering G/F (EJW).
11. Crosslet/G.H. 2 mule, hENRIKIC die (EJW).
12. „ hENKIC die (LAL).
13. Crosslet, double bar to crown, 4 crockets (EJW).
14. „ „ 6 crockets (EJW).

PLATE XXII

CHAPTER V (Half-Groats):

1. London, mm. Lis on rose (BM).
2. „ mm. Escallop, rosettes at cusps (EJW).
3. „ type IIIb(a), lis on breast (BM).
4. „ „ IIIc(a) (EJW).
5. York Royal, type IIIc(b), small letters (EJW).
6. Canterbury, type I, mm. Tun on obv. only (EJW).
7. „ mule I/II, mm. Tun on obv. only (RCL 3209).
8. „ type IIa, no mint-mark, eye after GRA, pellet stops (EJW).
9. „ type IIIA, mm. Lis both sides, trefoils/rosettes (BM).
10. „ „ mm. Tun and lis/Lis, „ (EJW).
11. „ type IIb, mm. Tun and lis/Lis, rosettes b.s. (EJW).
12. „ type IIIc, mm. Tun both sides, no stops (EJW).
13. „ „ mm. Tun both sides, saltires/none (EJW).
14. „ „ mm. Tun and pansy/Tun (LAL-BM).
15. „ type IIId, mm. Tun both sides (WJP).
16. York Ecclesiastical, type 1 (EJW).
17. „ type 2, reverse 7 (EJW).
18. „ type 3/5, no keys, reverse 8 (BM).
19. „ type 3/6, „ reverse 10 (EJW).
20. „ type 6, reverse 10 (WJP).



COINAGE OF HENRY VII (i)