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VARIATION OF DIE TYPES OF AUSTRALIAN PENNIES : 1937-1964

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Australian collectors are fortunate in having a series with as many interesting die types and varieties as those of the predecimal pennies. While the numismatic features of the George V pennies have been described in detail by a number of writers,¹⁻⁵ little has been written about the interesting die type variations of pennies of George VI and Elizabeth II. The purpose of this article is to describe variations in the die types used for Australian pennies from 1937 to 1964, correlate them with records from the Royal Mint (London) for master die production, and provide a listing of the different die pairings observed by date. The emphasis will be on die types, and the pairings of these obverse and reverse types used in striking Australian pennies, although other important features will also be noted. Here, the obverse die types are designated by a number and the reverse die types by a letter, following the convention used by the late C. Wilson Peck for British copper and bronze coinage.⁶

An understanding of the different die types of Australian pennies begins with an understanding of modern methods of die production. These methods were perfected during the 19th century, and allow the preparation of a very large number of identical working dies from a single master die. Briefly described, the process begins with the preparation of a relief model of the design substantially larger than the actual size of the coin to be produced. This design is then transferred to a reduction punch (or hub) by a cutting tool which traces over the shape of the relief model using a special reducing machine. This results in a positive image of the design on the reduction punch at the actual size to be used on the coin. After hardening, this reduction punch is used to transfer (in a series of blows) the design to a master die (negative

image). At this point in the process, border beading and other features can be added to the design using hand punches. This turns out to be a very important step in master die production process from the point of view of the numismatist, since the number of beads added and their position relative to the design and legend are determined at this stage of die production. Once the master (or matrix) die has been produced and hardened, it can be used to produce a working punch or hub (positive image). Finally, the working punch or hub is used to transfer (in a series of blows) the design to a working die (negative image) which once hardened is actually used to strike the coins. This process allows a nearly unlimited number of coins of identical design to be produced, since a typical working die can be used to strike 50-100 thousand coins, hundreds of working dies can be prepared from a single working punch, and many working punches can be prepared from a single master die. As a result, differences in design type involving even small variations such as a change in the number of border beads or their position with respect to the legend can be precisely replicated over many years of production.

Unlike the case for pennies of George V, there is little detailed analysis concerning die types for George VI and Elizabeth II pennies in the literature, and the scheme presented here is one developed over a number of years from observations of border beading and other features of Australian pennies from 1938-1964 in my own reference collection. This has allowed a classification scheme of the different die types and die pairings used for these coins to be developed.⁷ These results can now be supplemented and correlated with detailed information from the Royal Mint in London on the preparation of reduction

punches, master dies and other tools for the Australian pennies of George VI and Elizabeth II.⁸ This information was kindly supplied to me by Mr. G. P. Dyer, Curator and Librarian, Royal Mint, and provides valuable information on the source of the different observed die types. However, it should be pointed out that although I have a fairly extensive reference collection at my disposal, my lack of access to larger numbers of pennies of a given year or mint has necessarily limited my observations. It should also be noted that since the numbers and types of such varieties were not officially recorded, there is the possibility that additional die pairing varieties remain to be discovered, especially after the year 1950.

In the listings which follow, obverse die types for each reign are labeled by a number and the kangaroo reverse die types by a letter, with each described before its first appearance. Key features for distinguishing each die type are given and in many cases illustrated by a photograph. The listing provides the date on the coin, an indication of the mintmark or other feature, the obverse and reverse die pairing, the mint and a rarity rating. The rarity ratings are based on a combination of information available in the literature and personal experience concerning the difficulty of locating examples of particular varieties. The four categories used are: Common (C) used for the most common variety (or varieties) of most years; Scarce (S) for less com-

mon varieties of a given year and for 1946 pennies; and Rare (R) for varieties estimated to occur in a few percent or less of the coins of a given year. It should be emphasized that these ratings are relative, and are not intended to suggest market values.

DEVELOPMENT OF AUSTRALIAN PENNY REVERSE IN 1937

With the reign of George VI, a series of new and distinctive reverse designs were developed for the coinage of the Australian Commonwealth. For the penny a design by George Kruger Gray depicting a leaping kangaroo was selected. It is apparent that the initial attempts to produce dies for the new kangaroo reverse design were unsuccessful due to the relief of the design being too high for practical coinage. This can be inferred from the Royal Mint records (summarized in Table 1), which show that the first reduction punch for the new design was prepared in 3/4 relief on July 13, 1937, followed by the preparation of a master die and working punch in August. A month later, a second reduction punch in 2/3 relief was prepared followed by another master die and working punch. A listing of these trial tools with the date their preparation was completed at Royal Mint is summarized in Table 1, along with their fate. It is clear that the kangaroo reverse design in both 3/4 and 2/3 relief was considered to be too great for striking bronze pennies and the tools were not put into use. Both reduction punches at this

Table 1. Early high relief tools for Australian penny kangaroo reverse dated 1937 prepared at Royal Mint, London during July-September 1937.

Date	Notes
13 July 1937	Reduction punch in 3/4 relief. Destroyed Oct 1941.
5 July 1937	Master die in 3/4 relief. Destroyed May 1952.
11 July 1937	Working punch A in 3/4 relief. Probably destroyed May 1952.
11 July 1937	Working punch B in 3/4 relief. Not hardened, destroyed Oct 1941.
13 July 1937	Reduction punch in 2/3 relief. Destroyed Oct 1941.
26 Aug 1937	Master die from new 2/3 relief reduction punch. Destroyed Oct 1941.
14 Sept 1937	Working punch A in 2/3 relief. Probably destroyed May 1952
14 Sept 1937	Working punch B in 2/3 relief. Not hardened. Destroyed Oct 1941.

relief were destroyed in October 1941.

Finally, on October 13, 1937 a new 1937 dated reduction punch in 1/2 relief was prepared (see below in Table 2). At this relief the design was considered to be suitable for striking coins, and in November a new master die was made and beading added. A working punch was also made. These reverse die tools were sent to Melbourne in November 1937 to join a George VI obverse working punch made for use in Australia earlier in April 1937. The obverse die punch, sent to Melbourne, corresponds to the first George VI British penny obverse die type, Obverse 1 of Freeman,⁹ which was used on most British pennies of 1937 including the proofs.

The substantial delay in getting the correct relief for the new kangaroo reverse for Australian pennies is reflected in the obverse die type that was used for the extremely rare 1937 pattern proof pennies that were struck at the Royal Mint, London. In fact, the obverse die type used for these proofs differs slightly from that sent to Australia ("P" of IMP slightly misaligned with a border bead), and corresponds to the George VI Obverse 2 of Freeman⁹ used on some British pennies of 1937, and all British pennies from 1938-1948. However, the delays encountered in preparing the new kangaroo reverse die for Australian pennies seem almost minor compared to delays for Australian half pennies, where the new kangaroo reverse design was not available for coinage until late in 1939.

PENNIES OF GEORGE VI 1938-1952

In 1938, the kangaroo design was introduced on circulation strike Australian pennies of George VI, replacing the simple lettered reverse of the George V pennies. The origin of the master dies used for these coins is summarized below in Table 2. These consisted of a single pairing of obverse and reverse die types, obverse 1 with reverse A, which were used for all pennies struck at Australian mints until 1949.

Among the interesting features of George VI pennies is the use of a small raised dot as a mint mark for the coins struck at Perth. This first appeared in 1940-1941 between the designers initials ("K.G"), and when this proved unsatisfactory, the dot was enlarged and placed after the base of the Y of PENNY ("Y."). The newer form with the dot after Y is common on 1941 Perth pennies. However, there is a rare variant which occurs on a few 1941 Perth pennies, mainly, having both a dot at the top of the Y ("Y'") and another between the designer's initials ("K.G"). This is believed to be a transitional variety which occurred during the change in the position of the mintmark.¹⁰ After 1941, the dot mintmark for Perth pennies remained after the base of the Y for a decade. The many different positions of the dot mintmarks during the period from 1941-1945¹¹ indicate that these were placed on the working dies individually. Later, it became standard procedure for the Melbourne mint to prepare a separate dated

Table 2. Tools for Australian pennies prepared at Royal Mint, London in 1937.

Date	Notes	Comment
13 April 1937	George VI obverse working punch A from United Kingdom master tools. Sent to Melbourne.	Obv 1
13 Oct 1937	Kangaroo reverse reduction punch in 1/2 relief dated 1937. Subsequently de-dated to 19— for 1951 tools. Transferred to Royal Mint collection, 1964.	
5 Nov 1937	Kangaroo reverse master die dated 1937 from new 1/2 relief reduction punch. Beading added and sent to Melbourne.	Rev A
16 Nov 1937	Kangaroo reverse working punch A dated 1937 from master die of 5 Nov. Sent to Melbourne, Nov 1937.	Rev A

reverse die punch each year for Perth coins which included the dot mintmark.

Obverse 1 1938-1948

Design by Thomas Paget depicts George VI with the legend "GEORGIUS VI D:G:BR:OMN:REX F:D:IND:IMP." and was used for all of the pennies struck in Australia from 1938-1948. This obverse has 156 border beads, and is the same as that introduced on British pennies of 1937. On this obverse the upright of the letter "P" of IMP is aligned with a border bead and the letters of "IMP" are well separated.

Reverse A 1938-1964

Design by George Kruger Gray with Kangaroo and legend "AUSTRALIA PENNY". Border consists of alternating large "beads" and narrow "line" denticles, and there are 81 of each. The uprights of the letter "U" in Australia and the base of the letter "P" in penny point to large border beads. This reverse was used for striking pennies at the Melbourne and Perth mints.

1938	1 + A	Melbourne	C
1939	1 + A	Melbourne	C
1940	1 + A	Melbourne	C
K.G	1 + A	Perth	C
1941	1 + A	Melbourne	C
K.G	1 + A	Perth	C
Y & K.G	1 + A	Perth	R
Y.	1 + A	Perth	C

During the World War II years of 1942-1943, Australian pennies were struck in India for the first time since World War I. These coins display three distinctive new die types prepared at the Bombay mint. This in itself presents a minor mystery since dies were supplied to the Bombay mint from Melbourne, but were apparently either lost or discarded in

favor of new obverse and reverse dies prepared locally¹². Bombay mint pennies are easily distinguished by large raised dots before and after PENNY, an "I" mintmark under the bust on the obverse, and by the distinctively different obverse and reverse dies used. Differences are especially noticeable on the 1942-I reverse B which has longer (and fewer) border beads and the kangaroo in lower relief. This was apparently undesirable and a second reverse C die type with shorter beads, more similar to the Australian die, was prepared and used at the Bombay mint for 1943-I pennies. The Bombay obverse 2 is quite similar to obverse 1 but differs in both the border beading and style of the lettering.

It is clear from the many variations in the placement of the "I" mintmark on Bombay coins, that the mintmarks were punched onto working dies individually. For example, Dean¹ reports that one collector found 19 mintmark positions for the 1942-I penny, and Bird¹¹ reports at least eight distinguishable mintmark positions for the 1942-I and six for the 1943-I.

Bombay penny varieties of special interest to collectors include the scarce "no I" obverse of 1942 which almost certainly arose from an obverse die without the mintmark, probably the result of an accidental omission.¹³ The other important Bombay mint variety is the scarce 1943 "heavy rim" penny which has the long reverse B denticles of the 1942-I penny. Variations in the placement of the "I" mintmark on this variety indicate that at least two different obverse working dies were used.⁷

Obverse 2 1942-1943

The "Bombay" obverse die used for coins struck at the Bombay mint in 1942 and 1943. While similar to obverse 1, it can be distinguished by the letters of "IMP" which have much enhanced serifs and nearly touch at the base, the upright of the letter "P" which is aligned between border beads, and the distinctly more elongated border beads of which there are now 148. This obverse was only used at the Bombay mint.

Table 3. Tools for Australian pennies prepared at Royal Mint, London during 1948-1951.

Date	Notes	Comment
13 Sept 1948	George VI obverse reduction punch with revised inscription. Transferred to Royal Mint collection Aug 1955	
2 Dec 1948	Obverse master die from reduction punch of 13 Sept with beading added.	
7 Dec 1948	Obverse working punch from new master die of 2 Dec for United Kingdom coins.	
13 Dec 1948	Obverse master die from working punch of 7 Dec 1948, the additional stages giving increased size required for Australia. Sent to Melbourne, Jan 1949.	Obv 3
3 Jan 1949	Obverse working punch A from master die of 13 Dec 1948. Sent to Melbourne, Jan 1949.	Obv 3
27 Sept 1950	Obverse working punch B from master die of 13 Dec 1948. Because of poor surface not sent to Australia.	
11 Oct 1950	Obverse master die from United Kingdom working punch of 2 June 1949, taken from master die of 2 Dec 1948. Sent to Perth, July 1951.	Obv 3
26 Oct 1950	Obverse working punch A from master die of 11 Oct 1950. Sent to Perth, Oct 1950.	Obv 3
10 May 1951	Kangaroo reverse prep punch created from master die of 5 Nov 1937 and de-dated to 19—. Transferred to Royal Mint collection, 1964.	Rev A
7 June 1951	Kangaroo reverse master die dated 1951 with PL mintmark from de-dated reduction punch of 13 Oct 1937. Date completed, beading and PL added. Transferred to Royal Mint collection, 1964.	Rev D
18 June 1951	Reverse working punch A from above dated 1951 PL.	Rev D
28 June 1951	Reverse working punch B dated 1951 as above with PL removed. Sent to Perth.	Rev D
29 Aug 1951	Reverse master die dated 1951 from prep punch of 10 May 1951 and therefore already beaded. Sent to Perth.	Rev A

Reverse B 1942-1943

“Bombay” kangaroo reverse type, similar in design to Reverse A, but with much longer border beads, dots appearing before and after “.PENNY.” and with a distinctly lower relief used on the Kangaroo. The letter “I” in Australia points directly at a large border bead and there are now 77 large border beads

with a narrow “line” denticle between each of them. This reverse was used only at the Bombay mint.

1942	Y.	1 + A	Perth	C
	I	2 + B	Bombay	C
	no I	2 + B	Bombay	S

Reverse C 1943

Modified "Bombay" kangaroo reverse type similar in design to Reverse B, but with 77 short border beads like those of reverse A. The letter "I" in Australia points directly at a border bead. This reverse was used only at the Bombay mint.

1943		1 + A	Melbourne	C
	Y	1 + A	Perth	C
	I	2 + B	Bombay	S
	I	2 + C	Bombay	C
1944		1 + A	Melbourne	C
	Y	1 + A	Perth	C
1945	Y.	1 + A	Perth	C
1946		1 + A	Melbourne	S
1947		1 + A	Melbourne	C
	Y.	1 + A	Perth	C
1948		1 + A	Melbourne	C
	Y.	1 + A	Perth	C

Beginning in 1949, "IND:IMP:" was deleted from the obverse legend as the title "Emperor of India" was no longer appropriate. The new George VI penny obverse 3 for Australian pennies is the same as that used on British pennies of 1949-1951, although this was created using several additional stages from the original master die. The kangaroo reverse A die type of 1938 continued in use. However, during the years 1950-1951 additional reverse die tools of a new type were prepared, as summarized in Table 3.

The impetus for the preparation of new reverse die tools was the planned striking of Australian pennies for circulation during 1951 at the Royal Mint, London for the first time since 1915. These tools were marked by a small PL on the reverse representing a mintmark for London from Roman times, believed to stand for Pecunia Londinii.³ The reverse master die used for these coins was prepared from the original 1/2 relief reduction

punch of 1937 which was de-dated to 19—and newly beaded (see Tables 2 and 3). This new reverse D type can be readily distinguished from the older style reverse A by differences in the position of the legend with border beads, i.e. the "P" of penny is now aligned with a gap instead of a border bead.

Up until 1952, all the working dies used at Perth were prepared at the Melbourne mint including application of the dot mint marks. However, in 1952 Perth began preparing its own working dies using master dies and punches sent directly to Perth from the Royal Mint, London. To mark this significant change, the dot mintmark on pennies was placed after the A of AUSTRALIA ("A.") for the years 1952-1953¹². Subsequently, the dot mintmark for Perth pennies returned to its earlier position after the Y where it remained through the end of the pre-decimal coinage.

As part of this change in mint procedure in 1952, it became necessary for the Perth mint to prepare its own penny working dies with the last date numeral modified to a "2", and this led to a number of interesting date numeral variations. Of special interest to the collector, the Royal Mint supplied two different types of penny reverse die tools to Perth. The first type sent to Perth was a working punch from the 1951 PL master die with the PL mintmark removed. As a result, the distinctive new "London" reverse D die type appears on most of the pennies struck at Perth in 1952, all showing the newer style 5 without serif. The very rare Perth mint proofs are of this type. A newly fabricated copy of the older style reverse A master die was also prepared at London dated 1951 (from a de-dated prep punch from the original master) and sent to Perth. Perth pennies of this older style die type (now dated 1952) are distinguished from those of Melbourne by the newer style numeral "5" without serifs which appears on the Perth coins. These older reverse A 1952 Perth pennies also display most of the unusual date numeral "2" variations, indicating that a number of different numeral punches were used in preparing these working dies at the

Perth mint. Detailed survey results on the date numeral varieties¹⁴ makes it possible to infer that about 7% of the 1952 Perth pennies are of the reverse A type, making them somewhat scarce.

Obverse 3 1949-1952

Modified legend die type omitting the words "IND:IMP:" used for all pennies struck from 1949-1952. It is the same as that used on British pennies of 1949-1951. The last stroke of the letter "N" in OMN is aligned

between border beads, of which there are a total of 155. This obverse was used at both the Melbourne and Perth mints.

1949	3 + A	Melbourne	C
1950	3 + A	Melbourne	C
Y.	3 + A	Perth	C

Reverse D 1951-1957

Similar to reverse A, but the letter "P" in penny is now aligned between border beads. The uprights of the letters "L" and "I" in

Table 4. Tools for Australian pennies prepared at Royal Mint, London in 1953.

Date	Notes	Comment
14 April 1953	Elizabeth II obverse reduction punch with no beading. Transferred to Royal Mint collection, Dec 1955.	
27 April 1953	Kangaroo reverse reduction punch dated 19— in 3/8 relief to facilitate coining with new obverse. Last two figures of date removed. Transferred to Royal Mint collection, 1964.	
8 May 1953	Obverse master die (M) from reduction punch of 14 April, beading added. Sent to Melbourne, May 1953.	Obv 1
8 May 1953	Obverse master die (P) from reduction punch of 14 April, beading added. Sent to Perth, May 1953.	Obv 2
22 May 1953	Obverse working punch (M) from master die (M). Sent to Melbourne, May 1953.	Obv 1
22 May 1953	Obverse working punch (P) from master die (P). Sent to Perth, May 1953.	Obv 2
22 May 1953	Reverse master die (M) dated 1953 from reduction punch of 27 April. Beading added and date completed. Sent to Melbourne.	Rev E
22 May 1953	Reverse master die (P) dated 1953 from reduction punch of 27 April. Beading added and date completed. Sent to Perth.	not observed
12 June 1953	Reverse working punch (M) dated 1953 from master die (M). Sent to Melbourne.	Rev E
12 June 1953	Reverse working punch (P) dated 1953 from master die (P). Sent to Perth.	not observed
7 Dec 1953	Elizabeth II obverse reduction punch with modified legend, strap and enhanced hair detail.	

Australia and the base of the letter “Y” in penny point to large border beads. This reverse has 81 border beads and was used at both the London and Perth mints.

1951	3 + A	Melbourne	C
Y.	3 + A	Perth	C
PL	3 + D	London	C
1952	3 + A	Melbourne	C
A.	3 + A	Perth	S
A.	3 + D	Perth	C

PENNIES OF ELIZABETH II 1953-1964

A new obverse design depicting Elizabeth II was introduced in 1953, with continuation of the Kangaroo reverse design from George VI pennies. The new obverse was designed by Mary Gillick, with the legend “ELIZABETH II DEI GRATIA REGINA”, omitting the customary “F:D:” for “Defender of the Faith”. This was controversial, and led to the restoration of “F:D:” on pennies in 1955.

Perhaps the most interesting feature of 1953 Elizabeth II pennies are the distinctly different die types prepared by the Royal mint for use at Melbourne and Perth. These are summarized in Table 4, which shows that separate obverse master dies were prepared for the two mints. These are labeled obverse 1 for the “Melbourne” die type, and obverse 2 for the “Perth” die type. The two obverses have 116 and 117 border beads, respectively, and can be easily distinguished by the relative position of the legend with the beading. Also, for the first time, both obverse and reverse dies are distinguishable between the two mints since the “London PL” type reverse D die was used on Perth pennies, and the original reverse A type with the seriffed numeral 5 continued on most of the Melbourne pennies (including the very rare proofs).

The rare 1953 “long 5 different 3” Melbourne penny (no serif on the numeral 5) which has long been of interest to variety col-

lectors, in fact corresponds to a new reverse E die type for the Melbourne mint created from the new 3/8 relief reduction punch. The reverse E type was later used for all pennies struck at Melbourne during the years 1955-1959.

Along with the reverse E die type for Melbourne, records indicate that the Royal Mint also prepared and beaded a new reverse master die for the Perth mint from the new 3/8 relief reduction punch. This presents a minor numismatic mystery, since the author has been unable to confirm that it was ever put into use. That is, all of the 1953 A. pennies examined to date by the author, appear to be of the London PL type reverse D type, including the very rare Perth mint proofs. Furthermore, all of the 1955 Y. coins examined also appear to be of the reverse D type. If in fact a new Perth reverse die type was used for some of the coins struck in 1953, it may be necessary to examine a relatively large and random sample of 1953 A. pennies to confirm it. Alternatively, examination of relevant records on working die preparation from the Perth mint (which are currently in storage and unavailable) may be able to resolve this point.

Obverse 1 1953

New obverse design with portrait of Elizabeth II and the legend “ELIZABETH II DEI GRATIA REGINA”. There is a border of 116 round beads inside the rim. This obverse was used for coins struck in 1953 at the Melbourne mint, and is distinguished by the letter “I” in GRATIA being aligned between two border beads.

Obverse 2 1953

A different obverse with portrait of Elizabeth II similar to obverse 1, but with a border of 117 round beads inside the rim. This obverse was used for coins struck in 1953 at the Perth mint, and is distinguished by the letter “I” in GRATIA pointing to a border bead.

Table 5. Tools for Australian pennies prepared at Royal Mint, London during 1955.

Date	Notes	Type
12 May 1955	Elizabeth II obverse master die with revised inscription. From United Kingdom reduction punch of 7 Dec 1953. Beaded and sent to Australia, May 1955.	Obv 3
23 May 1955	Obverse working punch A from master die of 12 May. Sent to Australia, May 1955.	Obv 3
19 Aug 1955	Obverse master die from United Kingdom reduction punch of 7 Dec 1953. Beading added. Did not harden well. Transferred to Royal Mint collection, 1964.	
2 Sept 1955	Obverse working punch A from master die of 19 Aug. Now in Royal Mint collection.	
5 Sept 1955	Kangaroo reverse master die dated 1956 from reduction punch of 27 April 1953. Dated completed and beading added. Intended for Perth but not sent as form unsatisfactory.	
16 Sept 1955	Reverse working punch A dated 1956 from master die of 5 Sept. Sent to Perth, Oct 1955.	Rev F
21 Sept 1955	Obverse master die from United Kingdom reduction punch of 7 Dec 1953, but not considered suitable for Perth.	
3 Oct 1955	Obverse working punch B from master die of 21 Sept. Sent to Perth, October 1955.	Obv 4
27 Oct 1955	Obverse prep punch from master die of 21 Sept. Edge lowered to give flatter form.	
27 Oct 1955	Reverse prep punch dated 1956 from master die of 5 Sept	Rev F
9 Nov 1955	Reverse master die dated 1956 from prep punch of 27 Oct and therefore already beaded. Sent to Perth, December 1955.	Rev F
9 Nov 1955	Obverse master die from prep punch of 27 Oct and therefore already beaded. Sent to Perth, December 1955.	Obv 4
28 Nov 1955	Reverse working punch A dated 1956 from master die of 9 Nov. Sent to Perth, December 1955.	Rev F
29 Nov 1955	Obverse working punch A from master die of 9 Nov. Sent to Perth, December 1955.	Obv 4

Reverse E 1953-1959

Very similar to reverse A, but the first upright of the letter "U" in AUSTRALIA is aligned between border beads. As in reverse A, the base of the letter "P" in penny points at a border tooth and the base of the letter "Y" is aligned between border beads. This reverse

has 81 border beads and was used at the Melbourne mint.

1953	1 + A	Melbourne	C
long 5	1 + E	Melbourne	R
A.	2 + D	Perth	C

A gap appears in the series for 1954, as no Australian pennies with this date were struck. This was apparently due to a limited requirement for pennies that year, since the other standard denominations were all struck.

In May of 1955, a new obverse master die for Elizabeth II pennies with 120 border beads was prepared (see Table 5). This restored "F:D:" to the legend, added a shoulder strap to the bust, and enhanced hair detail. The new obverse 3 die type was used at both the Melbourne and Perth mints in 1955. For Perth the type D penny reverses of 1955 exist with both "narrow" and "wide" dates. Of these, the "wide" date coins with last two date numerals well spaced, are more common.

Late in 1955, a second new obverse master die with restored legend and added a shoulder strap was prepared. This obverse 4 type with 116 border beads became the standard obverse for Perth mint pennies starting in 1956. However, obverse 4 has also recently been reported¹⁵ and confirmed by the author to exist on a few 1955 Perth "wide date" pennies. While visiting the Museum of Victoria, examination also showed that proofs of the 1955 Perth mint penny are obverse 4 coins, suggesting that these were struck in 1956. John Sharples was able to provide confirmation of this in the form of a letter to S. V. Hagley from the Perth mint dated June 1, 1956 which stated that the 1955 dated proofs ordered by him in February were "now ready for delivery."¹⁶ This clear evidence of "late strikes" emphasizes that a significant degree of caution should be exercised in assuming that the official mintage figures for Australian coins of a given year necessarily corresponds to the number of coins of that date which were actually struck. The issue of determining the actual number of coins struck with a given date has been addressed by various authors, perhaps in the greatest detail by W.J. Mullett.¹⁷

A new reverse master die for the Perth mint dated 1956 was prepared at the same time as the obverse 4 die type. This reverse F die type became the standard reverse for Perth mint

pennies through the end of the pre-decimal coinage.

Obverse 3 1955-64

Similar to obverses 1 and 2 but with the legend modified to add "F:D:", an added shoulder strap, and enhanced hair detail. The border now consists of 120 round beads inside the rim. This is the die used for coins struck from 1955-1964 at the Melbourne mint, for 1955 at the Perth mint, and for some coins struck at the Perth mint in 1956. This die can be distinguished by the letter "I" in GRATIA which points to a border bead.

Obverse 4 1955-1964

Similar to obverse 3, but with a border of 116 beads. This obverse was used only at the Perth mint, and can be distinguished by the letter "I" in GRATIA which is aligned between border beads. This was the standard obverse for all Perth pennies from 1956-1964, but appears on a few rare 1955 dated Perth pennies and the 1955 Perth proofs, all apparently struck in 1956 (see text).

1955	3 + E	Melbourne	C
Y.	3 + D	Perth	C
Y.	4 + D	Perth	R

The year 1956 saw the general introduction of both the new obverse 4 and reverse F die types at Perth. These were used on the proofs and nearly all of the 1956 Perth pennies. Of special interest to variety collectors, some scarce Perth mint pennies of 1956 are of the earlier obverse 3 type, the same obverse used on all Melbourne mint pennies of 1955-64.

Reverse F 1956-1964

Very similar to reverse A, but the uprights of the first "N" of PENNY point at border beads while those of the second "N" are aligned between border beads. The letters "U", "L", and "I" in Australia point to border beads. This reverse has 81 border beads and was used at the Perth mint.

1956		3 + E	Melbourne	C
	Y.	3 + F	Perth	S
	Y.	4 + F	Perth	C

In 1957, two reverse types are known for Perth pennies, with the somewhat scarce 1957 “wide date” pennies being of the older “London” reverse D type and the more common “narrow date” pennies (and all proofs) being of the newer reverse F type. After 1957, only single die pairings are known for each mint and year, with the die types used at Melbourne and Perth being readily distinguishable.

1957	Y. (57)	4 + D	Perth	S
	Y. (57)	4 + F	Perth	C
1958		3 + E	Melbourne	C
	Y.	4 + F	Perth	C
1959		3 + E	Melbourne	C
	Y.	4 + F	Perth	C
1960	Y.	4 + F	Perth	C
1961	Y.	4 + F	Perth	C

The last tools for Australian pre-decimal pennies were prepared by the Royal Mint in June of 1962. These consisted of another set of working punches of obverse 4 and reverse F for the Perth mint which by now had primary responsibility for striking the large mintages of Australian bronze during the final years of predecimal coinage. Many unusual working die and striking varieties have been noted from this period. Among the more interesting are the 1962 Perth mint pennies with a strongly doubled obverse showing the

Queen with “two noses”. Examination suggests that this arose from improper alignment of the hub when preparing a working die.¹⁸ An unusually wide range of upset or rotated die positions have also been noted. These are beyond the scope of the present article, and the interested reader is referred elsewhere.^{1,2,11}

1962	Y.	4 + F	Perth	C
1963	Y.	4 + F	Perth	C
1964		3 + F	Melbourne	C
	Y.	4 + F	Perth	C

In 1964, after a four year lapse, the Melbourne mint participated in the final striking of pre-decimal pennies, reverting to the original reverse A die type of 1938. This was perhaps a fitting end to a numismatically fascinating series.

SUMMARY

Predecimal pennies are unusually rich in interesting die types and important varieties compared to other Australian coins and offer a significant numismatic challenge to the collector. Besides the better known types of George V, pennies of George VI and Elizabeth II exhibit a number of readily distinguishable die types. Examination shows that these can often be associated with particular mints, with distinctive Bombay and London die types of George VI, and Melbourne and Perth mint die types of Elizabeth II pennies. Such observations have now been correlated with information on the fabrication of master dies and other tools from the Royal Mint in London. Among the

Table 6. Tools for Australian pennies prepared at Royal Mint, London during 1962.

Date	Notes	Comment
27 June 1962	Obverse working punch B from master die of 9 Nov 1955. Sent to Perth.	Obv 4
27 June 1962	Reverse working punch B from master die of 9 Nov 1955 dated 19—. De-dated and sent to Perth.	Rev F

more interesting and scarce pairings of die types are those of the 1943 Bombay "heavy rim" penny with 1942 style denticles, the older reverse 1952 Perth mint pennies with a variety of date numerals, the new reverse "long 5 different 3" Melbourne mint penny of 1953, the "late strike" 1955 Perth penny with new "Perth" style obverse type, 1956 Perth pennies with the older "Melbourne" style obverse, and the 1957 "wide date" pennies with the London PL type reverse of 1951. Because the numbers and types of such varieties were not officially recorded, there is a possibility that other important varieties remain to be discovered by the collector.

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PENNY DIE IDENTIFICATION KEYS
George VI (1937 - 1952)



Obverse 1
"p" aligned with bead



Reverse A
Base of "Y" to small bead



Obverse 2
"P" between beads



Reverse B
Large beads elongated
Base of "Y" to large bead
Base of "P" to large bead



Obverse 3
Legends ends "DEF"



Reverse C
Large beads almost circular
Base of "Y" to large bead
Base of "P" to large bead



Reverse D
Base of "Y" to large bead
Base of "P" to small bead

PENNY DIE IDENTIFICATIONS KEYS
Elizabeth II (1953 - 1964)



Obverse 1
"I" between beads



Obverse 2
"I" aligned with bead



Obverse 3
With F:D: - "I" aligned with bead



Obverse 4
With F:D: - "I" between beads



Reverse E
"U" uprights between large beads



Reverse F
1st "N" to large beads
2nd "N" between large beads