KGV WATERMARKED PAPERS

Mike Jackson

The first KGV stamps were printed on Crown watermarked paper. Work by Tony Wiseman and Dr Reg Powell [eg 1,2,3,4,5] has revealed much about this particular paper, especially its use during the reign of KEVII. The most useful features of the Crown paper are the watermark corner crosses which have long been used to tell which side of the mill sheet a corner piece came from, information of great importance to plating. Recent examination of large pieces of Multiple and Simple Cypher watermarked paper (described below) has shown how to identify the side of the mill sheet for these two papers, although this is only possible when certain marginal watermark features are present.

The Mill Sheet

The term ''mill sheet'' refers to the piece of paper as I think would have been used on the printing press - ie slightly larger (to allow for trimming) than the size of two PO issue sheets side-by-side. Presumably a mill sheet originally meant a sheet as it left the paper mill. This is how Crown paper was sent to De La Rue [1] but certainly for the 1925 contract, Waterlow received their paper in reels which they cut into mill sheets themselves. The 1925 contract [6] refers to ''mill sheets'' albeit in quotation marks. The important thing is that ''mill sheet'' was still used to refer to the standard piece of paper which was the size (or a bit larger) of two PO issue sheets.

I have assumed that all the low value KGV definitive stamps were printed from pairs of plates, side-by-side. I don't know for certain if this was the case but I haven't come across any evidence to the contrary. In the National Postal Museum there is an uncut 480 set sheet of a Downey head issue [2]. An account from 1932 [7] confirms that Waterlow printed on a double width mill sheet: *''From the reel the paper is then cut into pieces double the size of the sheets sold at the post office...The double-size sheets are fed by hand into the printing machines, and inspected when they come out.''*

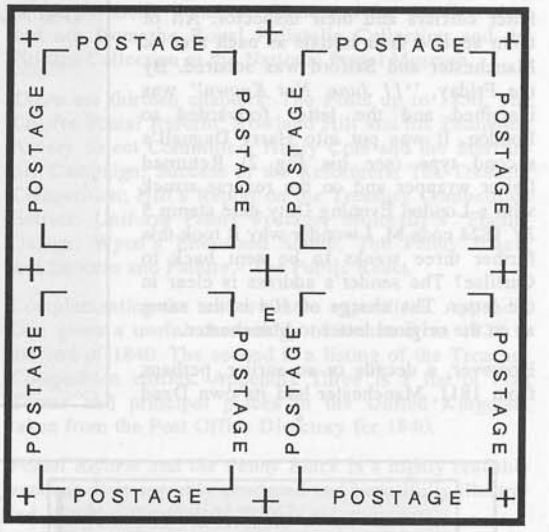

Fig 1 - simplified diagram of the Crown mill sheet

Crown watermarked paper

The Crown watermarked paper was made by R D Turner, originally at Chafford Mill, Tonbridge but from 1878 at Roughway Mill, Malling, Kent [8,p48]. The size of the Crown mill sheet was 22.75 by 22.375 inches [8,p49], thus it was roughly square and upon it was printed two PO issue sheets, side-by-side - see Fig 1.

I don't know what the specified sizes were for issue sheets on this paper but I have a sheet of the KGV Downey head 1d die 1a which measures approximately 11 by 21.25 inches. Table 1 gives a list of measurements taken of Downey head bottom rows. This does in fact include both values in all three dies and watermarks but there did not seem to be any significant difference in the range of measurements between any of them. The smallest measurements are somewhat suspect as collectors can sometimes trim margins, especially if it improves the appearance of the piece. The majority of the widths are around 1 or 2mm less than 11 inches.

TABLE 1
Widths of Downey head bottom rows

Width	*No*	*Width*	*No*
268mm	1	278mm	37
273mm	1	279mm	14
275mm	1	280mm	4
276mm	5	281mm	1
277mm	21		

In this article many measurements have been given in millimetres (rounded to the nearest whole mm) for convenience, although it is preferable to use the units that were used at the time - ie inches in this case. It is much easier to take measurements in millimetres than in fractions of an inch, hence the mixture of the two units.

On Crown paper produced after 1892, just below the centre of the mill sheet appeared a single-lined letter - probably a

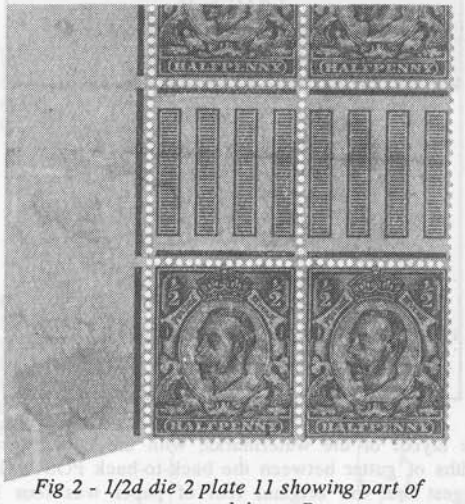

Fig 2 - 1/2d die 2 plate 11 showing part of watermark letter D

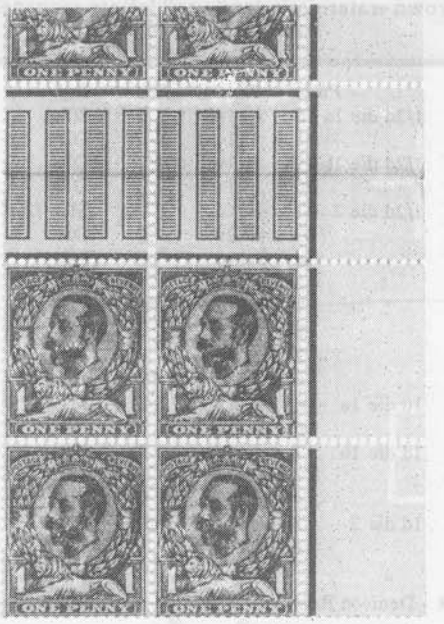

Fig 3 - 1d die 1a plate 6 showing part of watermark letter E

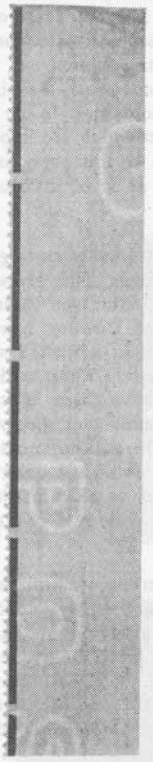

Fig 4 - 1d die 1b plate 4 showing part of watermark letter G

Fig 5 - 1d die 1a plate 3a showing a slightly sloping inner watermark corner angle

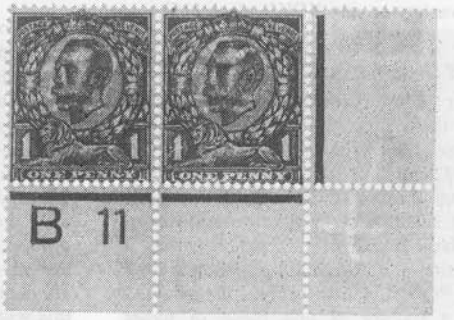

Fig 6 - 1d die 2 showing deformed small watermark cross (see Table 3)

TABLE 2
Crown watermark dandy roll letters recorded on KGV issues

	Plate	Control	Letter	Ref	
1/2d die 1a	5	A11w	E	DR	
	5	A11w	F	DR	
1/2d die 1b	19	A11w	D	DR	
	20	A11w	E	DR	
1/2d die 2	11	B12c	D	MJ	*(Fig 2)*
	13	B12w	D	DR	
	1a	B12c	E	DR	
	3	B12c	E	DR	
	7	B12c	E	DR	
	8	B12c	E	DR	
	2	B12c	F	DR	
	1a	B12c	G	DR	
1d die 1a	6	A11w	E	MJ	*(Fig 3)*
	6	A11w	F	DR	
1d die 1b	13	A11c	E	DR	
	7	A11c	F	DR	
	4	A11c	G	MJ	*(Fig 4)*
1d die 2	17	B11	D	DR	
	1a	B11	E	DR	
	17	B11	G	DR	

DR - Denison Roebuck Collection (Leeds University)
MJ - Author's collection

dandy roll identification mark. The letters A,B,C,D,E,F and G were used: D,E,F and G have been recorded on both KEVII [3,4] and KGV issues *(Table 2)*. Figs 2,3 and 4 show examples of the letters D,E and G.

Terry Pusterla's interesting work on the watermarks of KEVII issues [9] and Reg Powell's subsequent article [10] indicate that it may not be possible to identify the different mill sheets from differences in the dimensions between various watermark features. However, Tony Wiseman suggests that because the papermaker was allowed a small latitude in the position of the small crosses, it may be possible to use these [8,p51]. Other features may also identify a particular mill sheet (or its dandy roll). Fig 5 shows an inner corner angle which is out of square to the rest of the watermark. I also have several examples of the bent small cross *(Fig 6)* which are recorded in Table 3. Reg Powell has been unable to find this watermark variety on any KEVII piece [15].

Multiple Cypher watermarked paper

The Multiple Cypher paper, made at the Basted Mills [12], was only used for a short time in 1912 and 1913 for printing the Downey head 1/2d and 1d die 2 in sheets and Profile head 1/2d and 1d in sheets that were subsequently made up into rolls, although these latter are known issued in sheet form. I have recently been able to examine a large piece of this paper (which I believe may be a portion of an original reel) showing the watermarks of three PO issue sheets across the width. I was able to make a tracing of this piece of paper showing all of the watermark features and an indication of the rows and columns of cyphers *(Fig 7)*.

TABLE 3
Pieces showing the deformed small watermark cross

	Plate	Control
1d die 1b	15b	A11c
1/2d die 2	4	B11
	2	B12c
	18	B12c
1d die 2	2b	B11
	4b	B11
	6b	B11
	6a	B.12 (Somerset House)
	8b	B12c

The layout of the watermarks, with the two different widths of gutter between the back-to-back POSTAGES suggest that the original reel of paper was four PO sheets wide with the centre line on the single watermark cross in the centre of the wide gutter. Mr W P Moon also suggested some years ago that this paper was four sheets wide on the reel. This width would of course produce two mill sheets with identical features, except for the position of the bisected watermark cross. However, as Tony Wiseman has pointed out, as far as the study of the stamps are concerned, the size of the original reel is largely unimportant; it is the size and characteristics of the mill sheet which are important. In any case, the watermark cross on this paper is unlikely to appear on any pieces, and so is of little use to the specialist.

The short vertical lines are presumably cutting lines for trimming the final PO issue sheets. This gives an issue sheet width of approximately 276mm (see Table 1 for an overall view of the widths of Downey head bottom rows). This incidentally results in a wasted strip from the centre of the reel approximately 33mm wide which I would have thought would have been a significant amount of wastage given the number of sheets involved in postage stamp production. The measurement from the centre cross to the left edge (which I believe is the original deckle edge of the reel) is 588mm which gives a total width of the four-sheet-wide reel of 1176mm or 46.25 inches.

Study of Fig 7 shows how certain watermark features which may be present on a marginal piece can be used to ascertain whether it is from a left or right sheet. Fig 8 shows an example of a corner piece from a left sheet - the tops of the letters OST of POSTAGE can be seen back-to-back with TAG of POSTAGE. Comparing this with Fig 7 shows that the gutter between these two POSTAGES can only be the one down the centre of the mill sheet upon which the two PO issue sheets were printed. This and other possible pieces where the side of the sheet could be ascertained are given in Table 4, although it must be said that most marginal pieces with this watermark would not show any of these identifying features, and when they do the watermark must be misplaced or the sheet miscut.

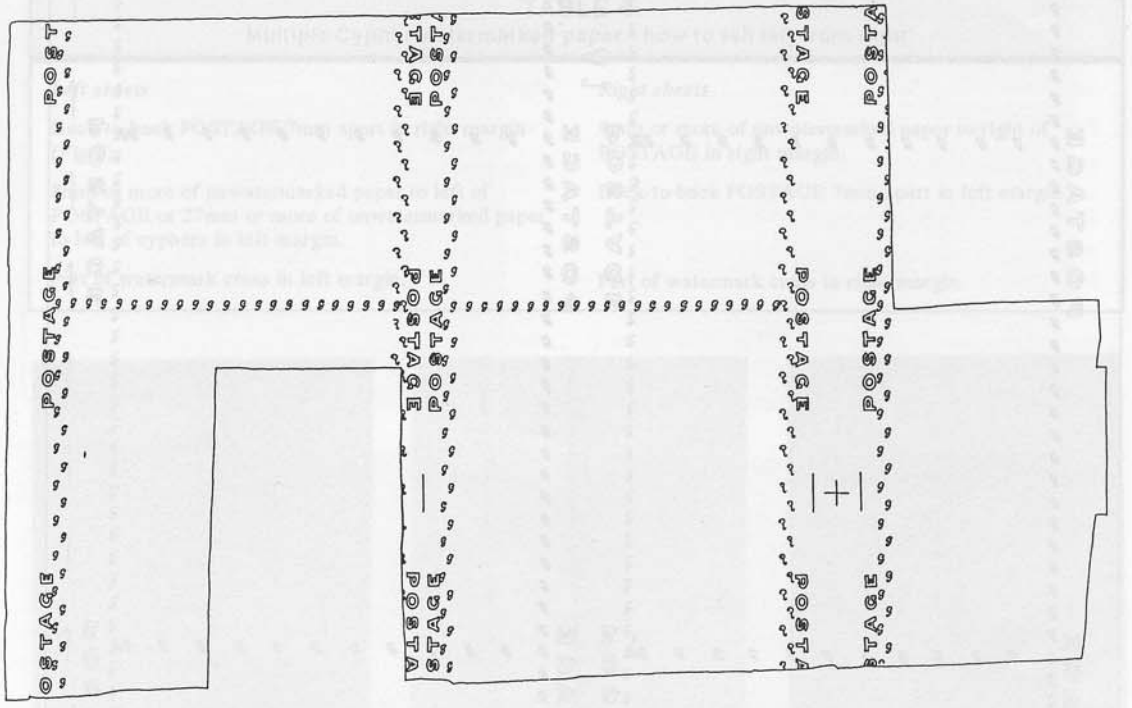

Fig 7 - tracing of piece of Multiple Cypher watermarked paper

Fig 8 - corner piece showing parts of two POSTAGEs, back-to-back

Fig 9 - missing crown in watermark

Fig 10 - missing crown in watermark

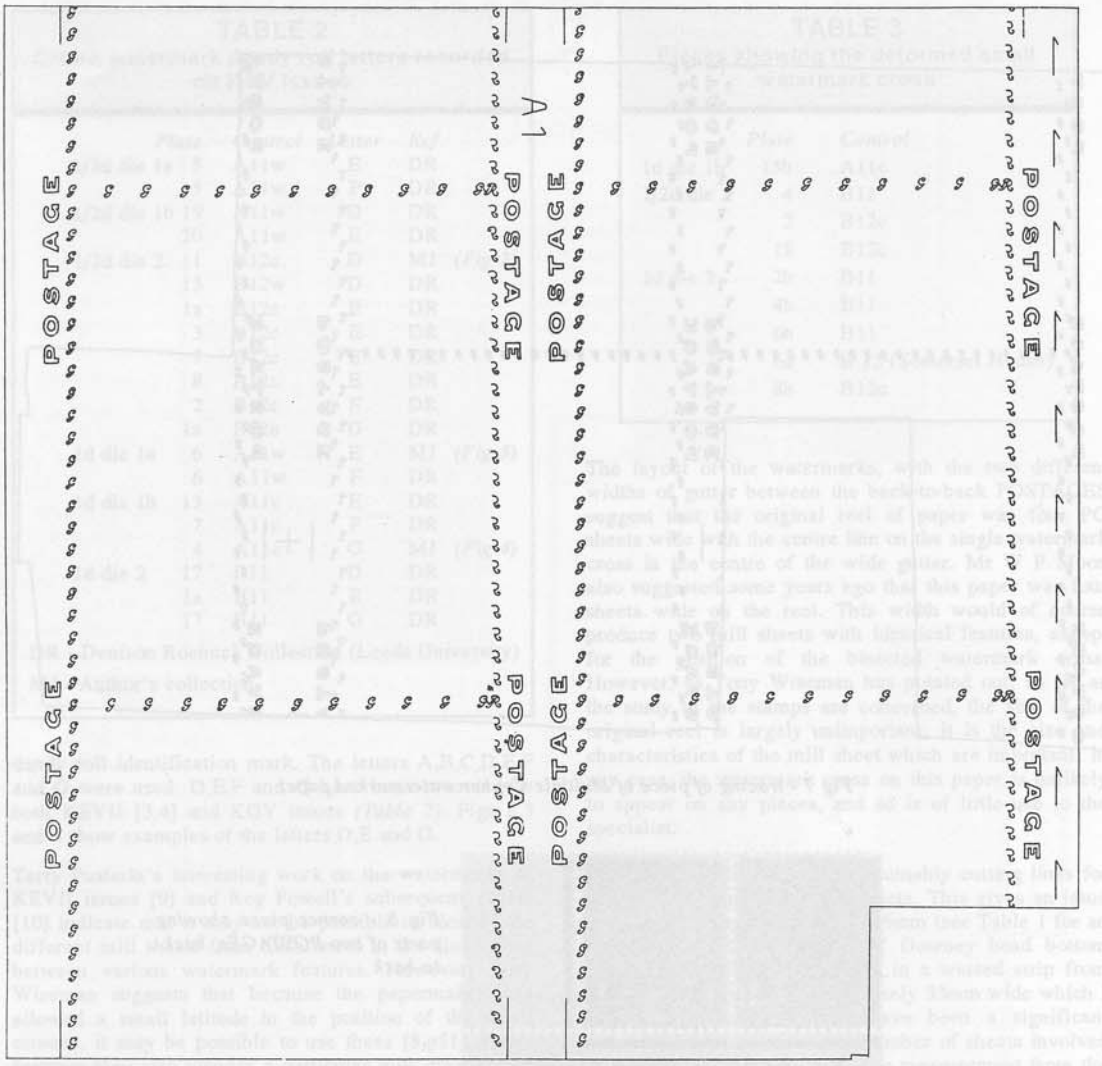

Fig 11 - tracing of piece of Simple Cypher watermarked paper

The well-known missing crown in watermark variety (SG N6e and N13h) is shown in Figs 9 and 10 [15]. These pieces show the position of the missing crown relative to the A of POSTAGE. Fig 9 does not quite show enough margin to the right of POSTAGE to be able to tell which side of the mill sheet it came from, but if someone has a piece which does show this, the missing crown itself would be a good indication of left or right.

The Multiple Cypher sideways watermark on the Downey head 1/2d and 1d raises an interesting question as to how this was achieved assuming standard paper was used. A sheet will just squeeze sideways onto a mill sheet with the back-to-back POSTAGES falling on the interpane gutter. I would like to hear from anyone who has marginal pieces of this variety which may throw some light on this.

Simple Cypher watermarked paper

This paper was manufactured by William Joynson and Son [12]. I have recently examined the major part of a mill sheet (double PO issue sheet) and a tracing is shown in Fig 11. The upper corners and upper centre of this sheet are shown in Fig 12. Two features to note are the dandy roll code in the centre (A1 on this sheet) and barbs down the right side. I am not certain exactly what the dandy roll code represents, but like the letters on the Crown paper, it is possibly to identify the dandy roll. The barbs are presumably to indicate a cutting line but it remains a mystery why these are only found down one side. Table 5 sets out the ways of telling left and right sheets. Correctly printed and trimmed sheets will show half of the letter code in the margin but the other ways of telling left from right in Table 5 require an abnormally cut sheet or badly placed watermark.

TABLE 4
Multiple Cypher watermarked paper - how to tell left from right

Left sheets	*Right sheets*
Back-to-back POSTAGE 7mm apart in right margin *(Fig 8)*.	8mm or more of unwatermarked paper to right of POSTAGE in right margin.
8mm or more of unwatermarked paper to left of POSTAGE or 27mm or more of unwatermarked paper to left of cyphers in left margin.	Back-to-back POSTAGE 7mm apart in left margin.
Part of watermark cross in left margin.	Part of watermark cross in right margin.

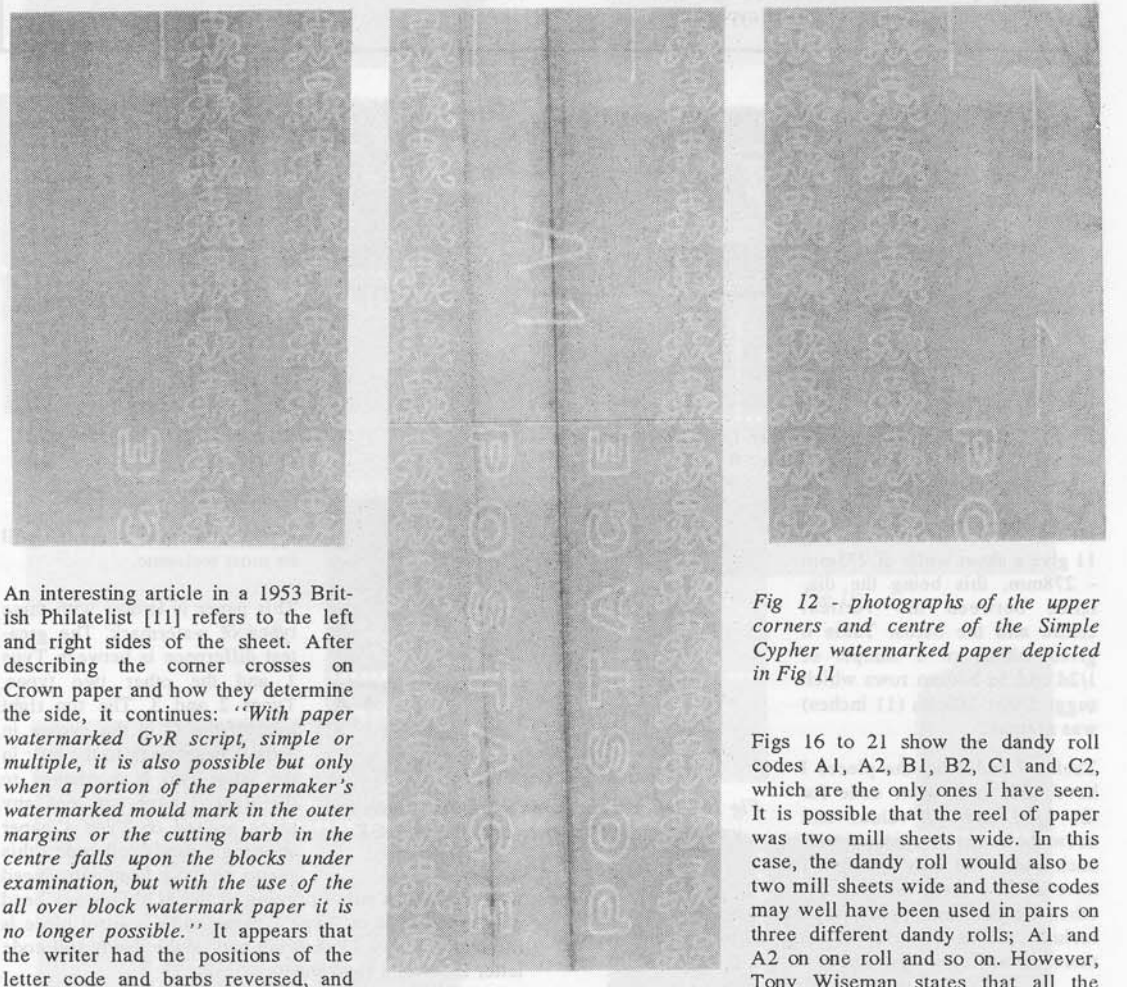

Fig 12 - photographs of the upper corners and centre of the Simple Cypher watermarked paper depicted in Fig 11

An interesting article in a 1953 British Philatelist [11] refers to the left and right sides of the sheet. After describing the corner crosses on Crown paper and how they determine the side, it continues: *''With paper watermarked GvR script, simple or multiple, it is also possible but only when a portion of the papermaker's watermarked mould mark in the outer margins or the cutting barb in the centre falls upon the blocks under examination, but with the use of the all over block watermark paper it is no longer possible.''* It appears that the writer had the positions of the letter code and barbs reversed, and was mistaken about the multiple script watermark also having these features. The writer may have been Stanton - the timing is right, being a few years before the publication of The Postage Stamps of Great Britain, Part 4 [12]. It is surprising that more of this sort of specialist information was not included in this book, but there are no references to the left and right sides of mill sheets.

Figs 16 to 21 show the dandy roll codes A1, A2, B1, B2, C1 and C2, which are the only ones I have seen. It is possible that the reel of paper was two mill sheets wide. In this case, the dandy roll would also be two mill sheets wide and these codes may well have been used in pairs on three different dandy rolls; A1 and A2 on one roll and so on. However, Tony Wiseman states that all the references to original reels of paper mention the size 36 inches wide, or a little wider [13] and assumes the reel had three sets of watermarks across. Since writing the above article he has suggested to me [14] that there were in fact only two sets across, although the original reel was wide enough for three. The mill sheet in Fig 11 measures about 22.75 inches wide (578mm).

TABLE 5
Simple Cypher watermarked paper - how to tell left from right

Left sheets	*Right sheets*
Part of dandy roll code in right margin *(Fig 21)*.	Part of dandy roll code in left margin *(Figs 16 to 20)*.
Right margin 22mm or more beyond right-most cyphers and not showing barbs - margin to be a minimum of 32mm in height (the gap between barbs).	Right margin shows barbs *(Fig 14)*.
Right margin shows parts of two POSTAGES back-to-back.	
Left margin shows a minimum of 16mm of unwatermarked paper to left of POSTAGE *(Fig 15)* or 42mm of unwatermarked paper to left of cyphers.	Left margin shows parts of two POSTAGES back-to-back.

Fig 13 - 1/2d die 2 Simple Cypher Type 2 with part of watermark letter B

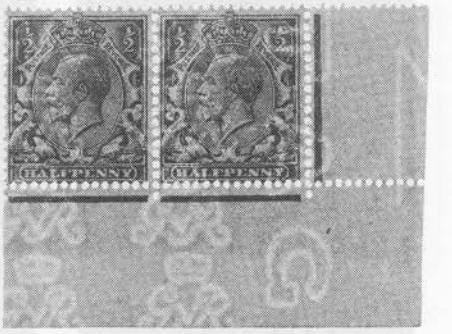

Fig 14 - barb in right margin

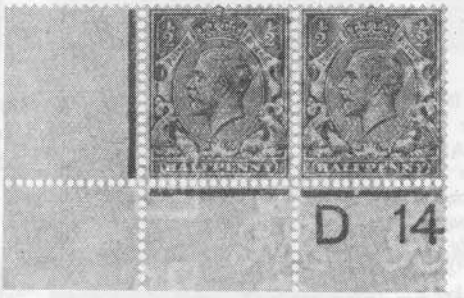

Fig 15 - left margin shows more than 16mm of unwatermarked paper to left of POSTAGE

Measurements taken from Fig 11 give a sheet width of 275mm - 278mm, this being the distance between the vertical centre and the barbs. Table 6 gives widths of a sample of 1/2d and 1d bottom rows which suggest that 280mm (11 inches) was normal.

Tables 7 and 8 list the pieces I have with each letter code for the 1/2d and 1d values and show the range of controls with each code. The only example I have of C2 is from 1923; all the other 5 codes first appear very early on. The tables also include pieces I have showing barbs - which are therefore all from right sheets.

Plating studies of these KGV low values should take into account the handedness of the plates, as and when this can be shown from the marginal watermarks. A comprehensive listing won't happen overnight - only a small proportion of control pieces show the relevant watermarks, and many of these will not have plate markings. Tables 7 and 8 represent a start: photocopies of pieces showing the watermark, control and plate marks which add to the list will be most welcome.

This paper is known with three types of watermark. The greatest difference is between Type 1 and the other two types, Types 2 and 3. The top right loop of the G in the cypher in Type 1 is set back to the left; in the other two it overhangs to the right. I have not seen any piece printed on Type 1 paper showing a dandy roll code - this seems to have been introduced with Type 2. A small printing of the 1/2d Downey head die 2 was made on Type 2 paper and a control piece is illustrated in Fig 13 showing part of the dandy roll code letter B - thus a right sheet.

Block Cypher watermarked paper

This was manufactured by Samuel Jones & Co Ltd [12]. The specification in the 1925 contract [6] was for mill sheets of 20.5 by 21.75 inches which were to be cut by Waterlows from reels 43.5 inches wide or 21.75 inches wide - it appears that either the larger size or a mixture of the two sizes of reel was supplied to Waterlow.

Fig 16

Fig 17

Fig 18

Fig 19

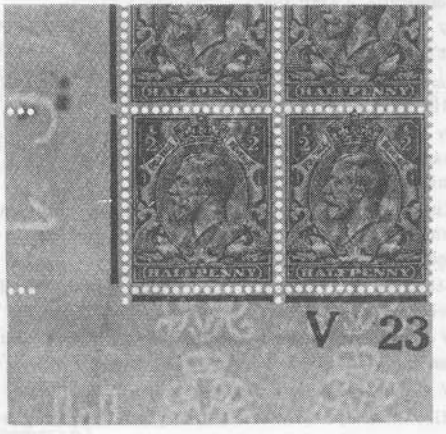

Fig 20

Fig 21

TABLE 6
Widths of Royal Cypher halfpenny and penny bottom rows

Width	*No*	*Width*	*No*
276mm	1	280mm	10
277mm	2	281mm	2
278mm	-	282mm	1
279mm	3		

TABLE 9
Widths of Block Cypher halfpenny bottom rows

Width	*No*	*Width*	*No*
271mm	1	275mm	4
272mm	1	276mm	2
273mm	15	277mm	3
274mm	9		

TABLE 7
Halfpenny Royal Cypher pieces showing letter codes or barbs

From right sheets
(letter code at left or barbs at right)

Control	*Plate*	*Letter*	*Control*	*Plate*	*Letter*
C13	10a	B1 *(Fig 18)*	M18	50	B2
	?	B2	M19	46	A2
D14	2b	A1		54b	A?
	2b	A2	N19	54c	A2
	10a	A1 *(Fig 16)*	P20	61	?2
E14	16(a?)	C1		?	B1
F15	24	A1	Q20	?	B2 *(Fig 19)*
H16	28a	A1	Q21	69	B2
	31a	A2	V23	78	barbs
	35	A2		83	barbs
J17	32b	A1		?	C1 *(Fig 20)*
	32b	A2			

From left sheets
(letter code at right)

Control	*Plate*	*Letter*
U23	?	C2 *(Fig 21)*

TABLE 8
One penny Royal Cypher pieces showing letter codes or barbs

From left sheets
(letter code at right)

Control	*Plate*	*Letter*
C13	?	B1
	?	B2
D14	?	A1
U23	93	C1
W24	99	B?

From right sheets
(code at left or barbs at right)

Control	*Plate*	*Letter*
K17	71a (1)	barbs
K18	112 (2)	A2 (Fig 17)
O19	75(b?)	barbs
U23	92	barbs

Note (1) Plate 71 exists with and without the 1/2 dot under PE of 10th. I have called my control block of six plate 71a as it does not have the marking.

Note (2) Plate 112 is unlisted with control K18.

The specified size for issue sheets was 20 by 10.5625 inches. This width equals approximately 265 millimetres which is significantly less than the measurements taken from a sample of 35 Block Cypher halfpenny bottom rows *(Table 9)*. The five bottom rows which measured 276mm or 277mm were all from 1924; the rest were from 1925 and 1926.

The Block Cypher watermark appeared all over the sheet so there are no marginal watermark features to help in plating studies.

Acknowledgements

Jim Hanson for the loan of the Simple Cypher paper.

Candlish McCleery Ltd for sight of the Multiple Cypher paper.

References

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