Neopost had been thinking along these lines and by 1930 was ready to introduce to the market a six-value Limited Value (LV) machine. Fig 79 (Courtesy Heritage Collections of the Post Office) shows the machine. The operating handle arrangement was very similar to the earlier Fixed Value (FV) machine. Fig 80 is a much simplified sketch to illustrate the die arrangement. The value figures were engraved on a wheel so that one value at a time occupied a 'window' cut in the frank design. An early specimen example is shown (Fig 81), the prefix 'N' being used for both LV and FV machines.

From an enlarged illustration of the mark (Fig 82) it is seen that a part of the bottom line was engraved with each number on the value wheel. This explains the two breaks in the bottom frame line which distinguished the LV marks from those made by an FV machine. Normally the LV franks had a single frame line at the bottom. Examples with a double line were FV franks modified for use on LV machines. As far as is known, no value wheels were engraved with a portion of double line frame below the value. Fig 82 is an example of such a modified frank.

Fig 81 Specimen franking from Neopost limited value machine

Fig 83 Limited value frank applied to an adhesive label

Fig 82 Enlarged illustration showing breaks in bottom frame line

Fig 84 Electrically-driven version of the limited value machine

Fig 80 Sketch illustrating the machine's die arrangement

Fig 79 Neopost limited value machine

The advent of smaller and cheaper machines in the late 1920s increased sales and customer requirements became more varied. Having introduced a franking machine into their postroom, it made sense to users for the machine to deal with most, if not all, of the mail. The range of postal rates could be more than the two, three or four which fixed-value machines could accommodate. The size of frank limited the number able to be fitted into the printing hub. Adhesive postage stamps could be retained for use on mail outside the range of the machine but the need for separate accounting rather defeated the object of franking. The machines did have the facility to print more than one frank, accompanied by a single town mark, but this added to the franking time—speed was a plus point for meter franking. There would clearly be an advantage if just the value in a frank could be changed, without changing the whole frank.

GB Meter Franking

Part 5—The Thirties and War

Jack Peach reviews developments during the 1930s and the changes imposed on meter machine manufacturers and users by the war.
The multivalue machine

The need to cater for wider ranges of postal rates was a constant spur to development. This was particularly so in continental Europe in the 1920s, a period of inflationary currency fluctuations. Apart from one fixed-value model, all early German franking machines were of what came to be called the multivalue type. With this the value was printed by several value wheels mounted side by side in the die hub. This is illustrated diagrammatically (Fig 85).

The German currency was fully decimal and each wheel was engraved 0 to 9. The wheels were referred to as 'banks', a two-bank machine could print values from 0 to 99.

The mechanism for recording the postage to be paid was very similar to that used in mechanical calculating machines of the period for carrying out addition (or multiplication), Fig 86. The rotation of an operating handle entered the set value on to a counter. In the case of a franking machine the handle rotation also caused the frank to be printed.

The first multivalue machine to be introduced into Germany in February 1923 was made by Bafra. This was quickly followed by one made by Anker-Werke (June 1923) and another by Komasina (July 1923). From 1924 Bafra and Anker-Werke machines were marketed by Francotyp G.m.b.h. of Berlin. In 1925 the Francotyp Model C was introduced, this was used extensively in many European countries.

After Mr Kinnard left Universal Postal Frankers, George Vyvyan Wynne-Jones was appointed Managing Director in 1925. Wynne-Jones made many foreign trips and arranged approval for UPF machines to be used in over 30 countries. During the course of these negotiations he met W Friedrichs of Francotyp.

The advantages of multivalue machines were realised although the stability of the currencies (and postal rates) in the USA and Great Britain did not present major problems for the machines then in use. In 1929 a tri-partite agreement was arranged between Pitney Bowes, UPF and Francotyp, allowing patents of the three companies to be used by each company, subject to a royalty payment. Unfortunately, in Great Britain the currency was far from decimal and the standard Francotyp machine could not be used. Furthermore, the German machine used a credit value card system for the prepayment of postage. With this arrangement, a customer purchased a card which, on insertion, allowed the machine to print franks up to the card value, after which the machine locked out. The value of franks printed was registered on a sealed counter. From time to time this counter was checked by the postal authority and compared with the value of cards purchased. Again, unfortunately, the British Post Office was not prepared to accept this system. Not until 1967 was such a method of payment accepted in this country.

For these objectives to be met, another register had to be fitted which would record prepayment and lock out when this amount of postage had been used.

A more difficult task was to adapt the counting mechanism to accept a binary system for halfpennies and a duodecimal system for pence. The halfpenny wheel was engraved ‘½’ and a ‘nil’ character. The pence wheel was engraved ‘nil’ to ‘11’ ‘10’ and ‘11’ being engraved as if one character. The third wheel was engraved ‘0’ to ‘9’ each with a shilling solidus (½) attached. The fourth wheel was engraved ‘0’, ‘1’ and ‘2’. The maximum possible value on the early four-bank machine was thus 29s. 11d., high enough for conceivable requirements but not so high for errors to be catastrophic! The ‘nil’ character was shown as either ‘0’, ‘·’ or ‘=’, depending on the model.

UPF decided the design effort was worthwhile and by the end of 1931 had produced a sterling version of the Francotyp machine. A patent had been applied for in 1930.

Six machines were imported from Germany and adapted for use in the UK. The first was used by Carter Paterson and the second by Fisher Clark in January 1932. The German machine was very heavily built so new lighter castings were produced for the British production models. One of these is illustrated in Fig 87 (Courtesy Heritage Collections of the Post Office).

Fig 88 shows a specimen mark and illustrates how the frank design had to be altered to accommodate the value characters. The royal cypher was reduced in size. Some franks had a single bottom frame line, others had a double line. The allocated prefix to machine numbers was ‘U’ and the numbers ran from 1 up for the whole country.

Following the early four-bank model came a three-bank version, but only five machines were made:
- Machine No 145; ½d. to 1s.11½d.
- Machine Nos 183, 195 and 204; ½d. to 9s.11½d.
- Machine No 312; ½d. to 5s.11½d.

An example from Machine No 204 is shown (Fig 89).

Fig 88 Specimen frank from a UPF multivalue machine

Fig 89 Frank from one of the five three-bank machines, U 204

Safety, Service and Satisfaction
Eight two-bank machines were introduced experimentally as the Model J. Their range was from 0/01d. to 0/111⁄2d., the '0' characters were fixed. The machine numbers were 212, 243–245, 248–250 and 269. Fig 90 shows a mark from machine U212.

The success of the Model J trial led to the mainstream two-bank ‘Junior’ model. The shilling solidus ($) was omitted and the range was 1⁄2d. to 111⁄2d. Fig 91 shows two typical marks which illustrate that the two engravings on the halfpenny wheel were '0' and '1⁄2d'. The penny wheel ran from '0' to '11'.

Although the machines were able to print on most letters, they could not print on to very thick packets or parcels. One solution was to print on to labels but this was time-consuming when large quantities were involved, also the address of the recipient had to be written or typed on to the label. Sheets of labels just large enough to take the frank, perforated on all sides to allow easy separation were made available. The printing was on security paper bearing a faint design. The machine number and name of resetting office was printed along one edge of each label. The tape was thus dedicated to a particular machine and locality. A torn-off label was fed into the machine and franked in the usual manner. Fig 92 shows a typical label. Franking these lengths of tape still took more time than franking letters which, because of their comparative rigidity, were quicker to feed into a machine. Development was started on an attachment which would allow the tape to be fed from a continuous roll. However, it was not until after the 1939–45 war that it became available for general use.

**Pitney Bowes Model CV**

The American-designed Model H fixed-value machine was not a successful product when competing against the limited-value and multivalue machines which entered the market in the early 1930s. To combat this, a limited-value meter was developed in the USA to replace the single-value meters used on Models A and F mailing machines.

The new meter was called the Model CV and was allocated the prefix P. The first commercial user was Littlewoods, on 13 June 1935.

The mailing machines were also modified as the AV free-standing model and the FS for standing on a desk or table. Fig 93 shows the new CV meter.
The first machine, P1, was used by United Dominion Trust. The second machine, used by the Borough of Hendon, was given the prefix PB in error (Fig 94). The normal frank values were ½d., 1d., 1½d., 2d., 2½d. and 4½d. The 5d. value from machine P15, also shown in Fig 94, is uncommon and is not listed in the Barfoot & Simon catalogue (see Bibliography). The catalogue does list a 6d. value from machine P16.

Silver Jubilee
The early 1930s was a period of recession but by 1934 business was picking up, including the sales of franking machines. 1935 was Silver Jubilee year for King George V and it was time to celebrate. The problems caused by the depression were still uppermost in many minds, particularly the effects on children. In his broadcast message to ‘My Very Dear People’ at the end of Jubilee Day (6 May 1935) King George said:

‘It is to the young that the future belongs. I trust that through the Fund inaugurated by my dear son, the Prince of Wales, to commemorate this year, many of them throughout this country may be helped in body, mind and character to become useful citizens.’

The Fund was named King George’s Jubilee Trust and had its own meter franking machine which used the special slogan illustrated in Fig 95.

A new King
King George V died in January 1936 and was succeeded by King Edward VIII, the Prince of Wales mentioned above. When adhesive stamps bearing the new King’s head appeared, King George V stamps were not invalidated. The Post Office made a similar decision regarding meter franks, allowing them to continue in use until the dies needed replacement. New machines were fitted with dies having the E VIII R monogram. Customers could be supplied with new dies for their machines on request (and for a charge) (Fig 96).

By the end of the year, King Edward had abdicated and his brother became King George VI. The E VIII R cypher was replaced by G VI R in meter franks.

The only Pitney Bowes Model A machine fitted with an E VIII R frank die was No PB 57, used by Selfridges. Four Pitney Bowes CV meters received the new franks—Nos P22, P23, P25 and P26. On the other hand, many UPF Midget, UPF Multivalue and Neopost FV and IV machines were fitted with them.

During King Edward’s reign there was one great event—the maiden voyage of the showpiece ocean liner Queen Mary. Philatelists arranged first day covers to mark the occasion; Harris Publications, always a supporter of meter franking, issued a picture postcard of the ship with the mark (Fig 97).

King George VI
Machines still in use were fitted with new franks under similar arrangements as had applied with the E VIII R dies.

Only two UPF NZ machines (NZ13 and NZ17) were fitted with the new franks—both were used by The Times Publishing Company. The following Pitney Bowes Model H machines were also changed; H16, 22, 26, 44, 46, 57 and 62.

Sales of UPF multivalue machines continued to increase and after number U999 was reached the prefix was changed to ‘UA’. By March 1938 there were 6543 licensees for meter franking machines, of these 2523 were UPF and the remainder Neopost.

No further models were introduced in UK until after the end of the 1939-45 war. More details relating to machines during King George VI’s reign will be given in the next article.

Post Office use
Although the British Post Office was perhaps rather tardy in approving meter franking in the early days, by 1927 they had realised that the machines could often show economic advantage. The Post Office Savings Bank, for example, had much correspondence to which a Paid mark had to be applied. For this duty Pitney Bowes single-value machines were employed, but as simple printers and counting recorders. Fig 98 shows a 1929 example. After the outbreak of war, slogans encouraging savings were fitted, the first appearing in June 1940. The design varied but continued in use until the two-tier postage system was introduced in 1968, when they were replaced by postal class marks. Fig 99 shows a slogan used in 1947.

**Fig 96 Die showing E VIII R monogram**

**Fig 97 Frank commemorating the maiden voyage of the Queen Mary**

**Fig 98 Paid mark applied by meter franking machine of the Post Office Savings Bank and, Fig 99, with slogan**
When the war spread to become worldwide the air transport of Forces’ letters presented a problem due to their bulk. This was overcome by using standard forms on which original letters were written, photographed and reduced on to film which could be readily transported. On reaching their destination country, enlarged prints were made and placed into envelopes for delivery to the addressee. This service was called ‘Airgraph’. The envelopes had to be marked ‘Postage Paid’ and again the Post Office used Pitney Bowes Model A or F mailing machines for this task. An Airgraph mark is illustrated (Fig 100). The quantity dealt with just before Christmas 1943 was so large that a day’s date became meaningless, so a blank slug was inserted in the die.

Wartime
1938–1939 was a year of crisis, with war not seeming very far away. The government requested UPF to change from producing meter franking machines to aircraft parts and armaments in general. The production of stamp cancelling machines had to continue, however, to provide the Post Office with parts for maintenance. As far as possible, parts were stockpiled.

Once war started in September 1939, many factories were dispersed throughout the country and the demand for franking machines increased. Reconditioned machines were supplied on loan.

On 1 May 1940 came the first increase in postal rates since meter franking began in 1922. The letter rate rose from 1½d to 2½d. (a 67 per cent increase) and the printed paper rate from ½d to 1d. (100 per cent increase). This brought a demand for fresh dies, particularly for the Pitney Bowes single-value machines. New dies were not always available so modifications had to be made to older dies.

The most eye-catching were the changes made to the obsolete Pitney Bowes Style A
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Machin Watch
by John M Deering

This month’s ‘Machin Watch’ includes an interesting variety of topics which I know will appeal to many of you: I report on something new in an old Postage Due issue, changes to some of the self-adhesive booklets, and the issue of a new gummed coil—all of which illustrate just how fascinating and varied collecting modern GB definitives can be.

Postage due on phosphorised paper!

Until recently, when they were phased out, Postage Due—or, more correctly termed, ‘TO PAY’—stamps had been with us for a considerable time. Their original purpose was to indicate the amount to be collected by Royal Mail for underpaid postage on letters and parcels; however, they were also used in connection with any applicable customs and VAT charges which were due on mail arriving in the United Kingdom from overseas—hence the term ‘TO PAY’ rather than Postage Due. With decimalisation, a new series of ‘TO PAY’ stamps were introduced, and between their issue in 1970 and their recent withdrawal there were two changes to the overall design, resulting in three different series. The second series exists with a relatively unknown paper error, which I thought I would bring to your attention here.

The first design (printed by Harrison and Sons Ltd, in photogravure) ran from 1970 until it was superseded by the second type (also Harrison and Sons Ltd, in photogravure), which was issued in June 1982. In 1994 a very radical and more modern design was introduced having been printed by The House of Questa in offset litho. Whilst the design of the original 1970s issue remained current for more than ten years, the actual stamps underwent many of the changes which affected Machins throughout the same period; therefore it will come as no surprise when you are reminded that stamps exist gummed with PVA (polyvinyl alcohol) and PVAD with added dextrin and that original coated (OCP), fluorescent-coated (FCP) and phosphor-coated (PCP) paper versions all exist. (Only the 10p and 20p exist with phosphor-coated paper, and it is believed that these versions were issued having been printed on the wrong paper in error.) There are no sub-types of the more modern 1994 version; it was only ever printed on one combination of paper and gum, namely non-fluorescent coated paper with PVA gum.

Stamps in the second design were issued on 9 June 1982, in the following 12 values: 1p, 2p, 3p, 4p, 5p, 10p, 20p, 25p, 50p, £1, £2 and £5. They were issued having been printed on fluorescent-coated paper (FCP) with PVAD gum and, until recently, it was assumed that there were no other printings; however, the 2p (bright blue) also exists printed on phosphorised paper—no doubt the result of a similar paper error to that occurring on the 10p and 20p stamps from the original series.

The 2p with phosphorised paper is rare; it is believed that a late printing (perhaps in 1992) was made using the advanced coated type of phosphorised paper which had been widely in use for printing ordinary Machins since 1983. This “TO PAY” paper error is an important stamp; it can now be found listed in the Stanley Gibbons...
Great Britain Specialised Stamp Catalogue, volume 4, published last year. Some readers are bound to have an example of the 2p with phosphorised paper lacking, unknown to them; in their collection; check 2p examples with a short-wave ultraviolet light, and if there is an afterglow then you have a stamp with phosphorised paper. Additionally, the examples I have seen all seem to be printed in a slightly paler blue. As always, I should be interested to hear if you are lucky enough to find one in your collection.

New gummed coils
On 4 July Royal Mail issued the first ever 2nd and 1st class NVI horizontal (sideways) coils; in fact, not only are they the first ever NVI horizontal coils (until now all previous NVI coils have been vertical), but they are—and quite significantly—the first ever horizontal coils to have elliptical perforations!

These new coils are produced by De La Rue and are in rolls of 1000 stamps; as you would expect, they are printed in computer-engraved gravure, have blue fluor, PVA gum and ellipses on each side, and are perf 15x14. The 2nd class have a centre band, whilst the 1st class have two side bands. Security-perfed computer-engraved gravure De La Rue versions of 2nd and 1st class NVIs with blue fluor and PVA gum have been available since 1997, when vertical coils and retail booklets were issued; apart from being distinguishable as horizontal coil stamps, the new coil issues differ in no other tangible way from the previous De La Rue printings. Why issue horizontal coils? It seems that the answer is quite straightforward and is confirmed by the coil leaders, which are inscribed ‘2nd [or 1st] class NVI 1000 STAMPS RM US FORMAT’. The key point here is ‘US FORMAT’; apparently a firm based in the United States of America wanted to undertake a large commercial mailing—using actual stamps instead of having envelopes franked—which when stamped would be shipped in bulk to Great Britain for mailing internally. One’s initial thoughts might be along the lines of ‘How odd; what a funny thing to do!’; however, when one considers that we now live in a global market-place and that some firms still prefer to stamp mail traditionally (the response to stamped mail is far greater than to franked mail) it all starts to make sense. I believe that stamped mail is less likely to be perceived as junk mail and is therefore generally opened by the recipient, so improving the chances of a response to a circular or promotion.

Bring into the equation machines which automatically stamp mail using coil rolls, and the whole thing seems a very sensible way for a large user of the post to proceed—rather like Reader’s Digest in the past.

Elliptical perforations were introduced in 1993; since then, horizontal coils have all but disappeared, with only two issues in eight years: one being the se-tenant 19p Reader’s Digest coil containing one 4p and three 3p Machins (31 January 1995; SG X9153n) and the other, also for Reader’s Digest, being a 25p single-value coil (6 February 1996: X917a). Neither of these two coils has elliptical perforations, and at the time they received a great deal of publicity because of the fact that everything else did have them; interestingly, it was believed that ellipses were not sensible on horizontal coils because they increased the chances of the rolls splitting. Of course, it might just not have been economic to produce a specific ‘elliptical’ perforating unit for (in the widest sense) two small print-runs of horizontal coils. The appearance of elliptically perforated horizontal coils in 2001 is therefore a surprise. Perhaps Royal Mail felt that the stamps, being standard NVIs, could not be produced without ellipses; alternatively, it may be that such a large quantity of these new rolls was required that a new perforating unit was viable.

Coil leaders
Coil leaders are highly collectable and popular additions to many collections. As detailed earlier, the leaders which are to be found on unopened rolls of the new horizontal coils bear the words ‘US FORMAT’, making them quite individual; the leaders also have the standard details such as the printer’s name, the quantity and type of stamps to be found in the roll, a roll number and a barcode. Apart from the barcode, which is black, the other printing on the leaders is specific to the stamps’ colour, so the printing on the 2nd class leaders is in blue, whilst it is orange-red on the 1st class versions.

As mentioned above, coil leaders are collected in their own right; so an accumulation of different leaders spanning a few years can be quite rewarding. For example, coil leaders now have barcodes, but this is a relatively recent addition and occurs only on leaders from rolls of NVIs where the stamps are computer-engraved. To give you a taste of the variety of material which can be collected, consider the NVI coils in vertical format with computer-engraved stamps. They first appeared in April 1997 and initial printings of rolls had leaders which were without barcodes and which referred to Harrison & Sons as being the printers. Harrison became De La Rue and rolls—still without barcodes—started to appear in the summer of 1998 with ‘De La Rue Security Print UK’ on the leaders instead of ‘Harrison & Sons Limited’ (this version is far from common and often sought-after); almost simultaneously, rolls appeared with ‘De La Rue Security Print UK’ and the addition of a barcode. Rolls with 500 and 1000 stamps also exist, so a collection of leaders can become quite stimulating and, at the same time, tell an interesting story.

Self-adhesive retail booklets appear with amendments to text
During January this year seven new standard retail booklets were issued, containing self-adhesive NVI stamps. The seven booklets represented a combination of different formats and printers, the complete range being as follows: Walsall 6x2nd class, 6x1st class and 12x1st class;
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Outside back covers from initial printing of self-adhesive booklets with www.postcodes.royalmail.com (below) and, left, from re-printed (1 August 2001) booklets with www.royalmail.com

Questa 10x2nd class, 12x2nd class, 10x1st class and 12x1st class.

On 1 August five of the booklets were issued with some changes to the telephone number and website address information, shown on the outside back cover. The five booklets are as detailed above, but excluding the two so-called Questa vending machine booklets of 10x2nd class and 10x1st class, which will no doubt appear in amended versions on another occasion. Apart from the changes to the written information and the use of some new cylinder numbers, there are no other differences; the panes and stamps are identical to the initial January issue, so if your interest is specific to panes or stamps then you need not concern yourself. If, on the other hand, you collect booklets with changes to the cover, or like to keep up to date with new cylinder numbers, then you will need to obtain some or all of them.

What are the changes?

Printed on the back cover of each booklet, and apart from the printer’s legend and the barcode, is a list of different Royal Mail telephone numbers for such departments as Customer Services, Textphone or Postcodes; there are also Welsh equivalents and a worldwide web address. The most obvious way to recognise the reprinted booklets is to look at the web address. On the original January booklets it is quoted as www.postcodes.royalmail.com whereas on the reprinted August versions the advertised web address is www.royalmail.com (i.e. the word ‘postcodes’ is no longer in the address).

Whilst I am generally against the official issue of booklets just because there has been a small change to the text, I can see that quoting a main Royal Mail web address and directing people to a specific postal address or main switchboard telephone number. Royal Mail appears to have taken the opportunity to amend the details for one of the Welsh-speaking departments. In all, five telephone numbers are shown on the back cover—three with department titles in English for English speakers and two with department titles in Welsh for Welsh speakers. The first Welsh department title (the second in the actual list) is unchanged on the reprinted booklets and reads ‘Cymraeg/Cod Post’ which I believe, loosely translated, reads ‘Welsh/Post Code’. The second Welsh department title (the fourth in the actual list) has been amended in the reprinted booklets to read ‘Ffôn Testun/Cod Post’ which, also loosely translated, I believe reads ‘Textphone/Post Code’. The initial January version just read ‘Ffôn Testun’ instead of ‘Ffôn Testun/Cod Post’.

(I am fairly confident that I have these translations roughly correct, but if they are not quite right I would ask any Welsh speakers to be tolerant with me and to let me know.)

Cylinder numbers

The reprinted self-adhesive booklets have the following ink-cylinder/phosphor-number combinations:

Walsall
6x2nd class with W2 and phosphor W1 (pW1 above W2)
6x1st class with W2 and phosphor W1 (pW1 above W2)
12x1st class with W1 and phosphor W1 (pW1 above W1)

Questa
12x2nd class with Q2 and phosphor Q1 (pQ1 above Q2)
12x1st class with Q2 and phosphor Q1 (pQ1 above Q2)

(N.B. The Questa January self-adhesive booklets are known printed with both bright and dull blue-fluor phosphors; the reprinted booklets I have seen so far have only the bright fluor.)

Forthcoming issues

During September and October we shall see the issue of three new booklets. Similar to the Submarine booklet of 17 April 2001 is a 6x1st class NVI booklet (to be issued on 4 September) including 2xPunch and Judy stamps. On 22 October another 6x1st class definitive/commemorative booklet will be issued, on this occasion containing 2xFlags and Ensigns stamps from a miniature sheet of four issued on the same day. Also issued on 22 October will be the ‘Unseen and Unheard’ Prestige stamp booklet marking the centenary of the Royal Navy Submarine Service. The booklet includes Submarine stamps from the earlier sheet issue along with Flags and Ensigns stamps, thus linking together the various retail booklets and sheet issues.

G.S.M. September 2001

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