

GB Meter Franking

Part 7—From Decimal to Digital

The 1970s and 1980s were decades of rapid development in meter franking, with the arrival of new technology, new machines and new manufacturers. Jack Peach provides the details



Fig 134 The new frank of 1968, designed by Stuart Rose

15 February 1971 was the date fixed for the UK to adopt an almost decimal currency. Unlike other countries in the sterling area, such as Australia, the pound was sacrosanct. The decision to make this the base value was against the advice of much of industry and commerce. The cost of this choice was great. The purchasing power of the lowest value coin, $\frac{1}{2}$ p, became 2.4 times that of the previous $\frac{1}{2}$ d. The cost of most items in the weekly shopping basket were measured in pence not pounds and the rounding up to the new currency was obviously inflationary. In terms of the $\frac{1}{2}$ d., on 15 February the first class letter rate changed from ten (5d.) to 14.4 (3p)—an increase of 44 per cent!

Manufacturers had to prepare for the currency conversion several years in advance. On 12 June 1968 a new style of frank was introduced designed by Stuart Rose FSIA, the typographic adviser to the Postmaster General. Like the Machin adhesive stamps, the style was simple and uncluttered (Fig 134). Between 12 June 1968 and 15 February 1971 all new machines were fitted with this new frank. The values were expressed in pence only; for example, 1s. was expressed as 12, 1s.6d. became 18 (see also Fig 134) and 8s.6d. was expressed as 102. The new frank style is termed 'Group H' by philatelists.

As already indicated, the large base value (£1) made £0.01 too large to be the lowest value and £0.001 was deemed too small. So the $\frac{1}{2}$ was here to stay. The first value bank in multivalve machines was therefore unchanged and continued to show nil or $\frac{1}{2}$. The new frank did not include a currency symbol. British franking machines therefore still needed to be modified for export markets. In the event, inflation in the 1970s became so great that by the end of 1984 the purchasing power of a $\frac{1}{2}$ p became so small that the coin was

demonetised and British currency became decimal. Other banks printed figures from nil to '9'.

About 74,000 franking machines were in use by 1968, falling into three categories:

a. Machines which could readily be converted on site.

b. Machines which needed to be converted in the maker's workshop—loan machines being used temporarily.

c. Machines which were withdrawn and replaced by new decimalised models. The table below lists the models which were converted in the 2½-year conversion period and used the 'Group H' frank, together with the frank number arrangement.

New machines

During the conversion period several new machines came on to the UK market. In 1968 the German company Francotyp introduced their Model C through the agency of Acral Ltd. It was a four-bank multivalve machine and Acral called it their Model A9000. The prefix was 'AC.A' (later 'ACA' and larger on some machines). This machine was a development of the

Make and Model	Frank Group F or G	Frank Group H
Pitney Bowes		
Simplex	S, S@****	PBS***@
Automax	A@****	PBA***@
5300 Series	P.B.***@	PBT***@
RT	RT****	PBR***@
CV	P, P@***	PBC***@
Neopost		
LV	N***	N***
305	N@-***	N@-***
205	J***	J, J@****
105	N***@	N***@
605	TN***	TN***
Hasler		
F88	fml****	fml****

Notes—In the above table and the rest of these articles, the symbol * represents a number character and the symbol @ an alpha character.

The number in a frank comprises a prefix followed by a string of figures and sometimes ends with a suffix. The purpose of the latter is generally to allow the number string to be repeated from 1 onwards but sometimes conveys other information, such as year of issue.

It is to be noted that Pitney Bowes modified their numbering arrangement for decimal machines whereas Neopost and Hasler made no change.

The decimalised pence machines were used after Decimal Day without further mechanical modification. Financially, the registers were deemed to record 'old pence' before 15 February 1971 and 'new pence' on and after that date. Revised record cards easily distinguished from earlier ones were provided. Payments and settings for decimal machines were for 1000 pence instead of 100 shillings.

Pitney Bowes Models A and B (except one machine, to be mentioned later), and the Universal Multivalve and Midget models were declared obsolescent and were not converted.

Frank sizes in 'Group H' varied considerably between models and even between machines within a model. There were, for example, three distinct sizes of frank used on the Pitney Bowes Simplex machines; 25×21mm; 23.5×20mm and 20.5×20mm (Fig 135). One use of the smallest die was on the demonstration machine at the National Postal Museum.

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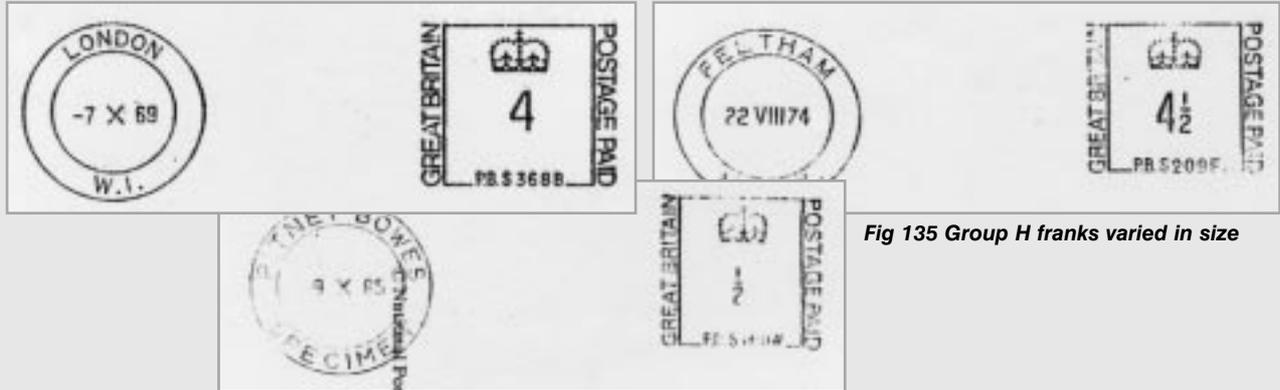


Fig 135 Group H franks varied in size



Fig 136 Front and back of an Acral machine value card

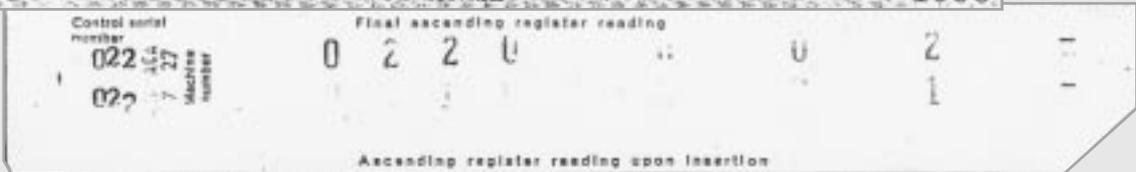


Fig 137 Acral frank showing 'Second Class Mail' operational mark

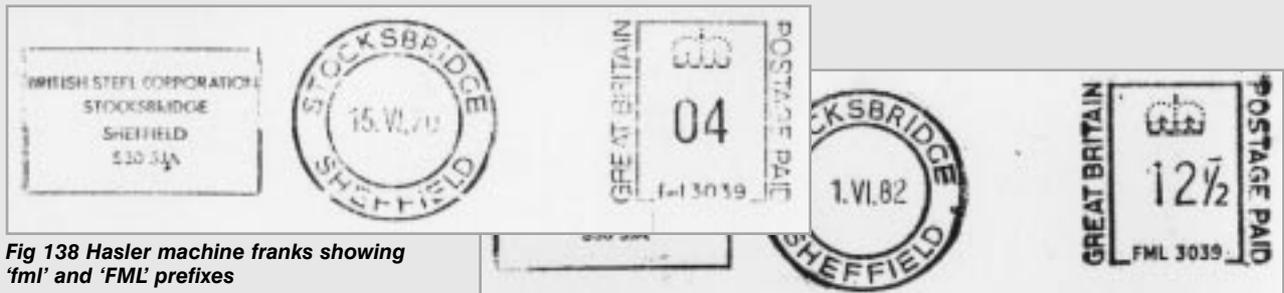


Fig 138 Hasler machine franks showing 'fml' and 'FML' prefixes

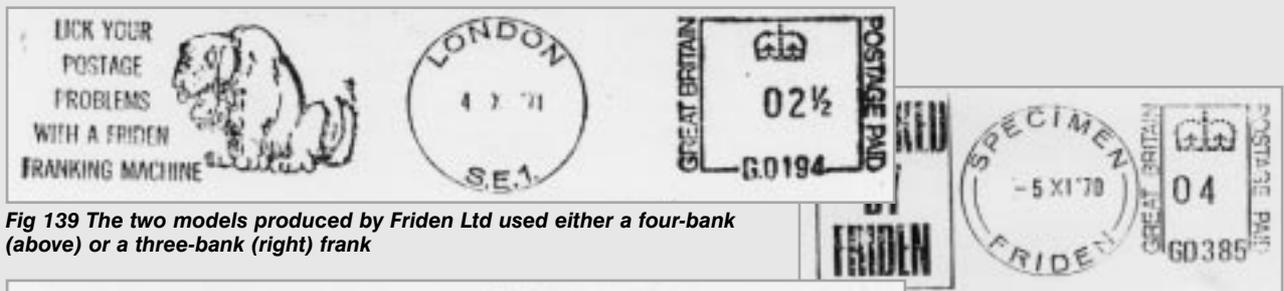


Fig 139 The two models produced by Friden Ltd used either a four-bank (above) or a three-bank (right) frank



Fig 140 Meter mark from Singer's Friden machine; Friden was a subsidiary company



Fig 141 Post Office slogan marking the golden jubilee of Pitney Bowes (top)
Fig 142 Pitney Bowes' own jubilee mark (above) utilised a modified 3d. frank (left)

Decimal Day

So Decimal Day arrived on 15 February 1971 in the middle of a Post Office strike! First day covers are virtually non-existent. Although private postal services were licensed by the Post Office during the strike period, as far as the writer knows none used meter franking machines.

In the three decades which followed decimalisation over 50 new models have been introduced. It is clearly not practical in a series of articles such as this to attempt to describe or even mention all these in detail. As far as possible, models introducing new techniques or embracing aspects of particular philatelic interest will be covered in the text which follows, but they may not be in chronological order.

Golden jubilee

1972 was the golden jubilee year for Pitney Bowes, even the Post Office produced a commemorative slogan (*Fig 141*—some-what touched-up). Souvenir envelopes were produced by the company which bore the frank, town mark and slogan illustrated in *Fig 142*. For this purpose Pitney Bowes state that the first commercial Model A machine, No 2, originally sold to Prudential Assurance Company in 1922, was refurbished. However, the meter fitted was a 3d. single-value type used by Wm Whitely Ltd on their machine number PB 58. The frank was decimalised by deleting the 'd' of 3d. The die before modification is also shown (*Fig 142*). The machine was re-licensed by the Post Office for this particular use.

More new machines in the seventies

It will be recalled that the Neopost 105 machine was the Limited Value which could print any one of ten values. In 1973 Neopost introduced their Model 105 Mk2 (often shown as 105-2) which was a two-bank machine with a value range ½ to 10%, the '10' in the second bank being engraved as if a single character, this allowed 21 different values. It was hand-driven and aimed at the small user. The frank number had the format W***@.

The next Hasler model made its appearance the same year. Their Model F66 was a three-bank machine with the range ½ to 99%. The number format was HAS**** (the first digit indicating the UK region of use).

Francotyp Model C, from which the Universal Multivalue machine was developed in 1931. The payment for postage was by value cards which had not been approved by the Post office at that time. By 1967 their view had changed and they had approved the value card system used with the Hasler Model F88 (see Part 6, *GSM* October 2001). The Acral machine thus became the second to gain approval. The front and back of a typical Acral value card are shown in *Fig 136* (Courtesy Heritage Collections of the Post Office). The cards were available for £100 (illustrated), £1000 and £5000. In addition to the frank, town mark and advertising slogan the machine could also print an operational mark, generally indicating first or second class mail (*Fig 137*).

In 1969 Hasler formed its own UK subsidiary, Hasler (GB) Ltd. The frank number prefix was changed from 'fml' to 'HGB', in upper case letters. When early machines required a new frank the machine number prefix was changed from lower case 'fml' to upper case 'FML'. *Fig 138* illustrates such a frank change on machine 3039. The first figure of the number continued to relate to the UK region of use (see part 6).

The next maker of machines to enter the UK market was Friden Ltd, a subsidiary of the American company Singer, of sewing machine fame. Two models were offered; the 410/420 (four-bank, range ½ to 999½) and the 9010/9020 (three-bank, range ½ to 99½). Although different models, they each used 'G' as the prefix, followed by a four-figure number. The frank size distinguishes the two models which are illustrated (*Fig 139*), the wider frank is from the four-bank model, 410/420. Friden withdrew from the UK market in July 1972 with about 700 machines in the field. These were serviced by Singer and later by Roneo-Vickers (Neopost). *Fig 140* shows a mark made by Singer's own machine in 1975 (a screw at the top left of the town mark would seem to have worked loose).

One more model was introduced during the conversion period. During May 1970 a trial machine of the Pitney Bowes Model 6330 was in use. However, the official launch date was not until 1 October 1971. These machines were of the multivalue three-bank type with a range of ½ to 99%. They were compact and designed for the smaller user. Although normally electrically-driven they could be operated by hand. The frank number had the format PBL***@.

Fig 143 The Neopost Model 2205

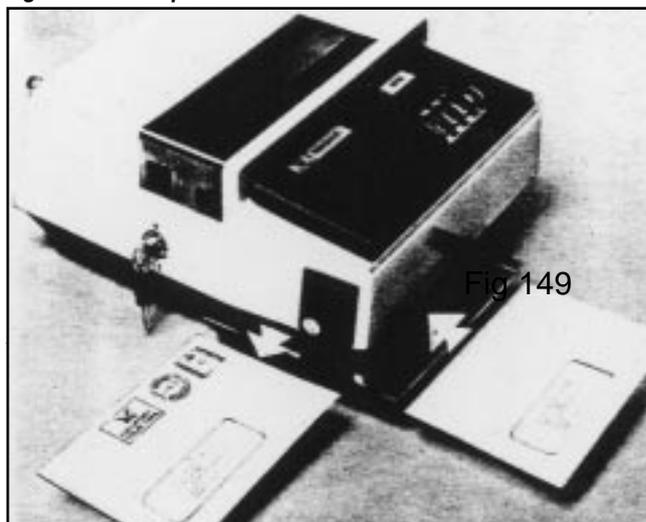


Fig 149

Fig 144 The Neopost 2205 inking roller





Fig 145
Pitney
Bowes'
Remote
Meter
Resetting
System

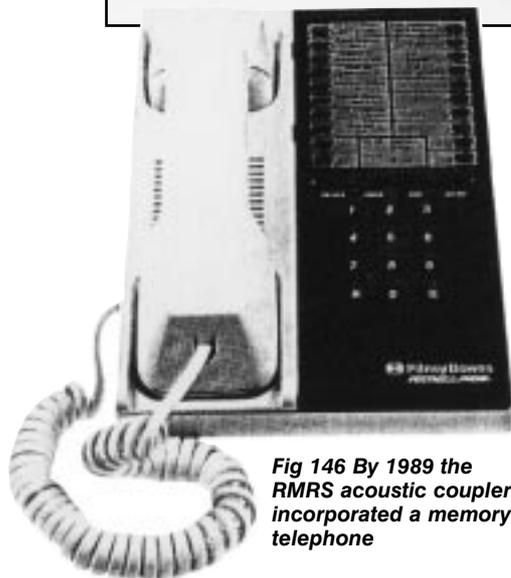


Fig 146 By 1989 the
RMRS acoustic coupler
incorporated a memory
telephone

Neopost, by that time Roneo-Vickers Mailroom Division, introduced their electrically-driven Model 2205 in 1976. The frank number format was 2N***@ (later 2N***@). With previous machines, envelopes entered with the right-hand side first and passed straight through, leaving with the right-hand side first. With the Model 2205, envelopes entered top edge first and were ejected left-hand side first. The inked die thus printed the mark from the top edge first. *Fig 143* illustrates this arrangement. *Fig 144* shows the longer inking roller withdrawn from the machine.

Remote resetting

By 1977 Pitney Bowes in the USA were running field trials on a means of resetting or crediting machines using a telephone and a central computer. The process was given the name Remote Meter Resetting System (RMRS). The system was introduced in the UK in 1981. Prior to this, meters had to be taken to a local post office or use value cards purchased and checked at a post office.

The system comprised a 5300 Series meter with an electronic keypad built on, an acoustic coupler with touch-tone keypad and telephone link adaptor and, of course, a telephone handset. The RMRS

data centre was at Pitney Bowes' factory in Harlow. To reset the meter the coupler link was attached to the mouthpiece of the telephone handset. Using the keypad on the acoustic coupler, the data centre was dialled and when connected the account number, meter number and register readings were keyed in. A 'computer-controlled voice' then provided an exclusive resetting number. This number was then entered into the meter using the 'built on' keypad and its knob rotated. This caused a pre-determined fixed increment of postage to be added to the meter. For security the resetting number was changed for each transaction. *Fig 145* shows the meter with the built on electronic keypad (arrowed), acoustic coupler and keypad with the telephone connector attached to the telephone mouthpiece. (Also shown in *Fig 145* is an electronic scale which showed the correct postage for each item weighed—eliminating calculation errors.)

On 2 June 1987 the Post Office Chairman visited the Harlow factory and unveiled a plaque commemorating and renaming the system 'Postage by Phone'. By 1989 the acoustic coupler had been redesigned to incorporate a memory telephone which could also serve as the normal office phone in the postroom (*Fig 146*).

Fig 147 Model 4350 machine with rechargeable credit module and postal pouch



Other meter manufacturers offered similar telephone resetting systems in the years that followed, as well as other methods. Neopost, for example, introduced their 'Credipac' system in 1987, using an electronic module which could store an amount of postal credit. When inserted into a meter machine, the credit was transferred. On withdrawal, the machine worked as normal until the credit ran out. When 'empty' the module was sent back to Roneo Alcatel (Neopost's name at the time) through the post in a small reply-paid pouch for recharging. The first models to use the system were the 4350 and 4450, three- and four-bank machines with frank number format 1NE****. *Fig 147* shows a Model 4350 machine together with a module and a postal pouch.

Neopost models with numbers ending in '00' were for manual resetting, those ending with '50' were arranged for 'Credipac' and those ending with '60' were for 'Credifon', the Neopost telephone resetting system.

Government experiments

When the Post Office was scheduled to become a government agency it was necessary for government departments to gear themselves to new accounting procedures. Instead of printed Official Paid envelopes and labels without postal charge being marked, it seemed that meter franking might provide a solution. Beginning in December 1978, a three-month trial with about 70 franking machines took place at various establishments to sort out any possible problems. Because the use of Official Paid stationery still continued, the franks were 'dumb'. Machines were supplied by Pitney Bowes (*Fig 148*, an example on tape), Roneo-Neopost (*Fig 149*) and Hasler (*Fig 150*).

The Post Office became a government agency on 1 April 1981 and general use of franking machines by government departments began. *Fig 151* shows a first day cover.



Trial frankings for government departments using 'dumb' franks: Fig 148 Pitney Bowes (above); Fig 149 Roneo-Neopost (below); Fig 150 Hasler (below centre)



Fig 151 Government franking used on the first day



More from Hasler

From 1978 into the early 1980s Hasler introduced a series of machines containing the same type of meter; basically four-bank but which could have one bank removed (or immobilised), so running as three-bank machines. They were decimalised initially with a ½ but later without. The ranges were ½ to 999½ and later 0 to 999 or 0 to 9999.

The frank number format was HF****. The second digit in the number indicated the year of manufacture: 8 = 1978; 9 = 1979; 0 = 1980 to 5 = 1985. The format then changed to HF*****@. The alpha suffix indicating the year of manufacture: A 0= 1986; B = 1987; C = 1988; I represented 1994 but was quickly changed to J to avoid confusion; O was omitted; P = 1999; Q was omitted; R = 2000 and S = 2001. The system applied to future models with prefixes HM, HB, HT and HS.

Frama

The Swiss company FRAMA (FRANKier MASchinen) entered the UK market in 1982 with their Model E4, through the agency of Mailing and Mechanisation Ltd.

The allocated Prefix was MMC (Fig 152). The machine was of the four-bank multi-value type with a range ½ to 9.99%. Payment for postage was by value cards which could be purchased for £20, £100, £500 or £2000.

By the end of 1982 Mailing and Mechanisation had gone out of business and the Frama agency was passed to Scriptomatic, a subsidiary of GEC, the prefix being changed to FSC (Fig 153).

Other models followed and, as business increased, Frama decided to open their own offices in this country and FRAMA (UK) Ltd was formed in 1990. The allocated prefix remained as 'FSC'.

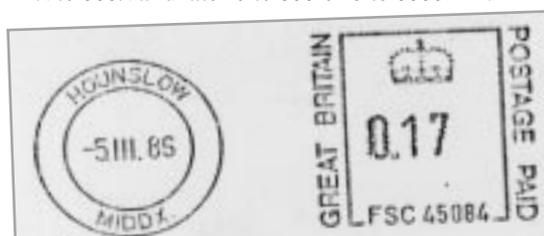
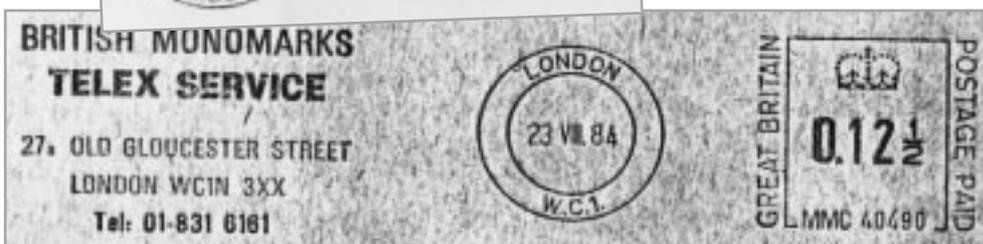


Fig 152 Frama frank, prefix MMC (below); Fig 153 Scriptomatic frank, prefix FSC (left)



Francotyp-Postalia

In the early 1980s Francotyp GmbH merged with Postalia Freistempler GmbH and became Francotyp-Postalia GmbH. After selling their machines in the UK through Acral Ltd, they changed to Envopak Group Sales Ltd in 1983. Prefixes

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Fig 154 Specimen franks from SECAP's UK Alpha machine and its French contemporary

in the frank number changed to: Model A9100, EGS*****, Model P3, ENV*****, Model MS5, EMD*****, and Model EFS, 3000 EFS*****. By 1992 the company decided to establish its own office in the UK, forming Francotyp-Postalia Ltd. There was no change in prefixes.

Addressing Systems International

The first franking machine to be developed in France and used in the UK was introduced in 1988. The company was SECAP (Societe d'Etude et de Construction d'Appareils de Precision). In the UK the machines were distributed by Addressing Systems International. The first model was the Alpha electronic machine, using the frank number format ASA*****. The value range was 0 to 99.99. Fig 154 shows specimen marks made by a UK machine and its French contemporary. A smaller machine, given the name 'Minipost', came in 1992 with a similar value range but frank number format ASM*****. In 1995 a remote resetting system employing a 'smart' module was introduced called 'Credi-Card'. Frank numbers of machines using the system began with '9' in the case of Alpha and '8' for Minipost.

Electronic machines

By the mid-1980s electronics and computers were leading development. During the next few years each of the six manufacturers began offering 'electronic' machines. Many extra facilities are possible with these machines but not all were available with a particular model. Such facilities might be: digital display; keypad for entering value, date and controls; date check; high value warning; departmental accounting; postal cost calculation; postal cost printout; linking to PC; diagnostic display; help codes and others.

The first 'electronic' machines as claimed by each manufacturer were:

Maker	Year	Model	Number Format
Pitney Bowes	1982	6500	PBE****
Neopost	1983	EF7	6NE*****
Hasler	1983	F1300	HM*****
Francotyp	1986	EFS3000	EFS*****
ASI	1988	Alpha	ASA*****
Frama	1994	EPS	FSC*****

Coloured slogans

The Pitney Bowes Model 6900 Series was interesting because it offered the facility of coloured slogans. Their printing operation was similar to that of the Neopost 2205. It will be recalled that an envelope entered top edge first and was ejected left-hand side first. In the Model 6900 Series there were two inking rollers situated end to end, one inking the town mark and frank dies and the other the slogan die. By international regulation the town mark and frank had to be printed in red. The slogan ink roller was offered in four colours; red, blue, black and green (Fig 155). Two sizes of slogan were available; large, as in Fig 155, and small, as in Fig 156.

Inevitably, ink rollers became accidentally (?) transposed, producing town mark and frank in colours other than red (Fig 157).

There were three models in the 6900 Series; 6920 for manual resetting used the prefix 'PBF', 6921 for postage by phone with the prefix 'PBG' and 6922 were for demonstration and used the prefix 'PBO'.

It was, of course, possible for two separate coloured rollers to be fitted to the Neopost Model 2205. The writer does not know when this was first done but has the slogan in blue Fig 158.

Smart dispenser

As part of the trials of their MeritCard (a 'smart' card developed by GEC Card Technology), the Midland Bank (now HSBC) arranged for it to be used for the purchase of goods and services on the campus of Loughborough University. The MeritCard contained a computer chip with a micro-processor and memory. It could store up to £20 in cash drawn from a Midland current account.

In May 1989 an Automatic Postage Dispenser, using the card, was installed in the Student Union Building. The machine was originally a 'tabletop' model but this was changed, in October, to a more secure model in a lockable cabinet (Fig 159).

To operate, a MeritCard was inserted into the machine and a PIN number keyed. The desired postal rate was next keyed, pressing 'enter' deducted the amount from the card. The letter for franking was inserted into a slot where it was gripped by the machine and franked. The envelope



Fig 159 Automatic Postage Dispenser installed at Loughborough University. The machine was operated by use of a MeritCard that stored up to £20 in cash. The mark made by this machine is shown in Fig 160

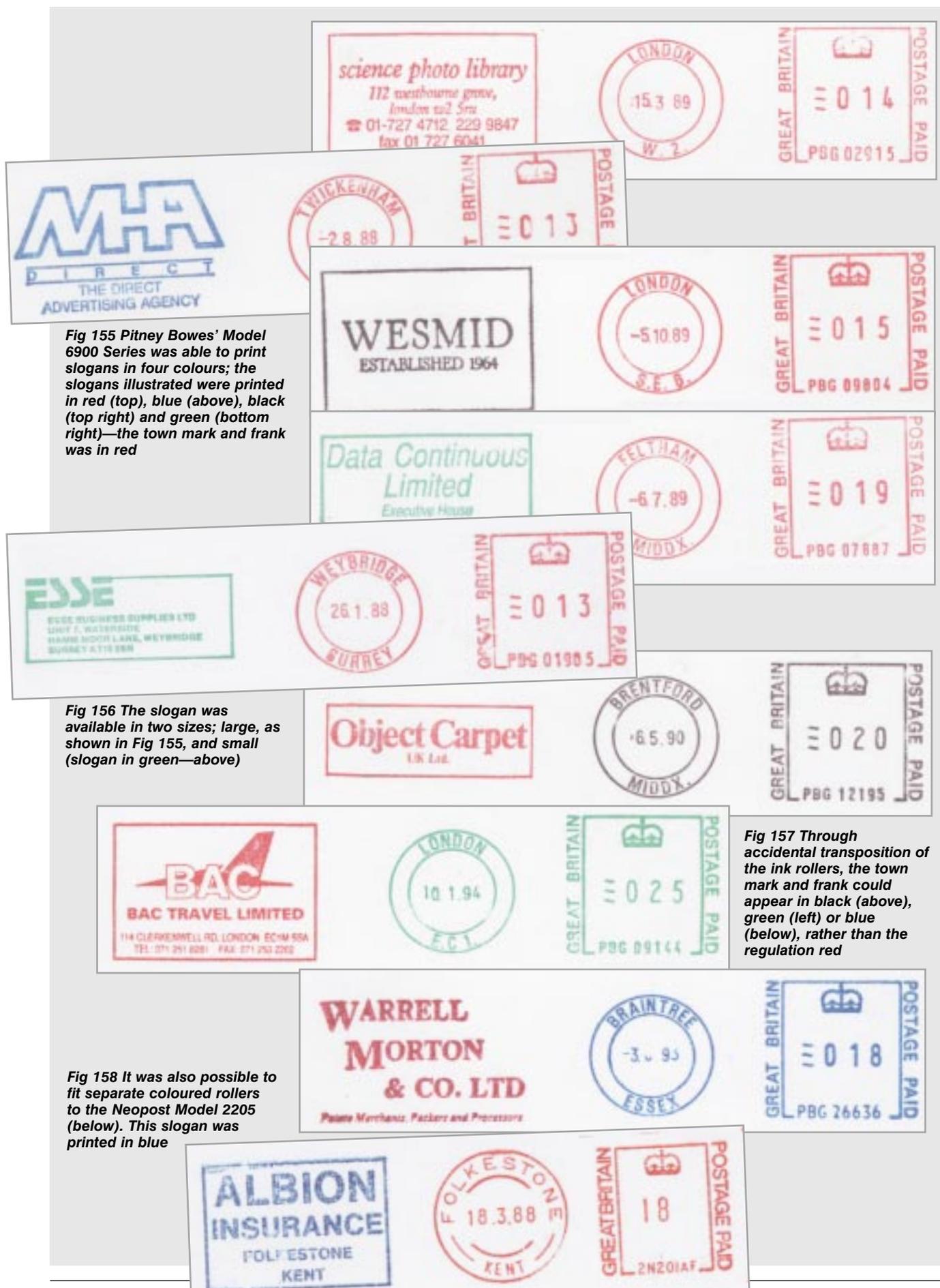


Fig 155 Pitney Bowes' Model 6900 Series was able to print slogans in four colours; the slogans illustrated were printed in red (top), blue (above), black (top right) and green (bottom right)—the town mark and frank was in red

Fig 156 The slogan was available in two sizes; large, as shown in Fig 155, and small (slogan in green—above)

Fig 157 Through accidental transposition of the ink rollers, the town mark and frank could appear in black (above), green (left) or blue (below), rather than the regulation red

Fig 158 It was also possible to fit separate coloured rollers to the Neopost Model 2205 (below). This slogan was printed in blue

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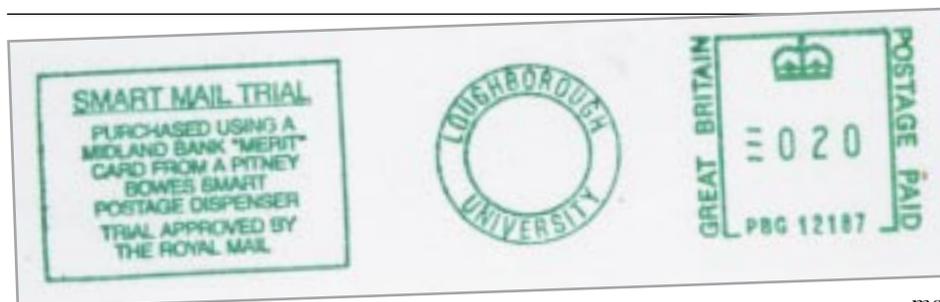


Fig 160 Frank (in green) from the trial machine at Loughborough University

could then be withdrawn and posted in an adjacent posting box. *Fig 160* shows the mark which was printed in green ink. The meter machine was a Pitney Bowes Model 6921.

Digital arrives

In April 1992 Francotyp-Postalia introduced a machine using a new printing process for meter franking called 'Thermal Printing'. A solid ink comprising a pigment and a thermosetting plastic is carried on a plastic ribbon held in a cassette. On its passage through the machine the envelope and ribbon are pressed by a roller on to a platen. The surface of the platen comprises a series of spots (pixels) which can be individually and momentarily heated electrically as required to form the pattern of the frank, town mark and any slogan.

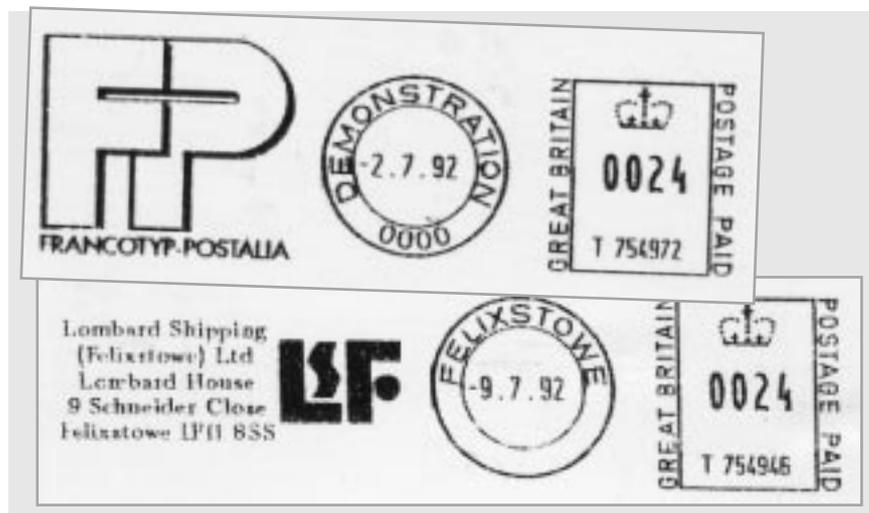
The ink is melted by the heat and is transferred from the ribbon to the envelope where it immediately solidifies. The digital data for the mark is stored in an EPROM. Date and value are keyed electronically.

Called their Model T1000, it is a four-bank machine with a value range 0 to 9999. Up to six slogans can be stored and recalled at will. A demonstration and a commercial example of the mark is shown (*Fig 161*).

A thermally-printed mark appears shiny when viewed along the surface of an envelope.

This ability to store data electronically and digitally on a chip, to be recalled and printed later, was arguably the greatest development since meters were introduced 70 years before. The rapid developments which this allowed and bringing the meter franking story up to the present will be the subject of the next and final article in this series.

Fig 161 Demonstration and commercial marks from the Francotyp-Postalia thermal-printing machine



MACHIN WATCH

Continued from page 29

To match the account of the Jolly Roger, the White Ensign also deserves a few words by way of explanation and history. It consists of the Cross of St George, red on a white background, with the top left quarter occupied by the Union Jack. It is the official flag of Her Majesty's ships and Royal Navy shore establishments—and, as a special privilege, may be flown by the Royal Yacht Squadron. Dating from the seventeenth century, when the Royal Navy also used Red and Blue ensigns, it has been the Royal Navy's only ensign since 1864.

The appearance of the White Ensign (which incorporates the Union Jack, as described above) on a new sheet and booklet stamp this year is particularly apt. The original Union Jack came into being in 1603, when the English and Scottish crowns were united under James I, who was also James VI of Scotland. After the union of Great Britain and Ireland in 1800, the red diagonal Cross of St Patrick was added to the existing combination of the Cross of St Andrew and the Cross of St George, to create the version of the Union Jack that is still in use today. A royal decree authorising the use of the new flag was issued on 1 January 1801: this year is therefore the bicentenary of the Union Jack in its present form.

Themes and schemes

The appearance of the Submarines and Flags and Ensigns issues, in sheet, retail booklet and prestige booklet form, provides an excellent opportunity and incentive for anyone thinking of starting a thematic collection. Such collections are a popular and well established branch of philately; their topics can be very wide and general (e.g. transport or nature) or very limited and specific (e.g. post-boxes or cricket), and they give a collector the chance of building a collection that is highly individual, even unique. A thematic collection can embrace not only all stamp formats—sheet stamps, miniature sheets, retail and vended booklets, prestige booklets, coils, first day covers and so on—but also illustrative material such as press cuttings and photographs; with the inclusion of foreign stamps the possibilities are almost unlimited. At its best, the development of a theme can be a very sophisticated form of stamp collecting and create a spectacular exhibit—I wish I had the time; I would probably be tempted by the subject matter myself.

Next month

By the time you read this, the advance of autumn will be obvious enough to remind us all that Christmas is only just round the corner. That means, among other things, the arrival of the 2001 Christmas stamp booklets, due on 6 November; early news of them indicates that they will all be self-adhesives. In the December 2001 *GSM* I shall be able to verify that report, and give a full account of the booklets. I shall also be bringing you news in detail of a Questa litho £1 vending machine booklet (the version that contained a mixture of 1p, 20p and 26p definitives) with an extraordinary phosphor shift which creates a completely new specialised 26p stamp. Book your copy of the December *GSM* today!