hospitals which did not cater for their needs. As a result, in 1971, Judy Fryd led a campaign which resulted in the Education (Handicapped Children) Act that overturned these earlier rulings and beliefs.

With a formidable force of supporters, Judy saw her little organisation grow into a massive UK charity with a turnover of £100 million per year, a staff of 5500 and over 20,000 dedicated volunteers. As a result, she received an MBE for her services in 1967 and, 29 years later, her work continued to be appreciated and admired when she was awarded a CBE in 1996.

Although Mencap as an organisation has not previously featured on a British stamp, they have encouraged people to collect and donate used stamps to raise money for the charity. This has not only helped to bring awareness to their work, but also provided a secondary use for the stamps of non-collectors which may otherwise have just been thrown away.

A quote of Dr Samuel Johnson, used as one of the first day of issue postmarks, reads 'Great works are performed not by strength but by perseverance' and aptly describes the challenges faced by both Mary Wollstonecraft and Judy Fryd. Through their foresight, determination and strong beliefs, they paved the way for others to follow and rightly deserve their place alongside the other notable personalities who make up this philatelic tribute.

## **The coming of phosphor** Richard West on the addition of phosphor to stamps in 1959

Before any item of mail can be cancelled or sorted, there is a basic requirement – that the envelope is facing the correct way, with the stamp in the top right corner (the practise established when the postage stamp was introduced), hopefully resulting in the address being upright. For years mail was sorted into this position manually but, as early as 1934 at the Post Office research facility at Dollis Hill in London, ways were being sought to undertake the task automatically. The basis has always been to detect the stamp, the initial attempts using photo-electric scanners proving unsuccessful. More successful was a machine developed in 1949–50, which relied on reflectivity to distinguish between the stamp and envelope. However, this did not meet the full requirements of the Post Office, wanting to go a step further, to distinguish mail at the cheaper 'printed paper' rate (later replaced by first and second class mail) from other letters.

The solution seemed to be adding something to the stamp to enable its detection. Ideas included strips of silver, or adding sodium chloride to the face of the stamp, but neither was thought practicable. Other ideas were using fluorescence (reference was made to optical brightening agents added to washing powder) and phosphorescence. The last of these was thought most satisfactory, equipment detecting the stamp by the afterglow resulting from being subjected to ultra-violet light. However, automated letter sorting (together with postal codes) using phosphor was being developed, and the fear was that the two would give conflicting signals.

So, in 1956 it was decided to give stamps tag treatment, namely applying lines to the back of stamps using colloidal graphite in naphtha, known as naphthadag ('dag' standing for Deflocculated Acheson's Graphite). It was agreed that such stamps be trialled in the Southampton area. Early in 1957 the stamp printers, Harrison and Sons, produced samples of the potential stamps, with the lines printed on the back of the stamps under the gum.

The Post Office had reservations over health concerns and the public's reaction to the black lines. Harrisons proposed the alternative of applying the naphthadag to the front of the stamps, under the design, but this created aesthetic problems. Also considered was applying the lines to the face of the stamp paper before it was coated. Nevertheless the idea adopted was to have two lines on the back of the stamps from ½d to 3d – the 2d printed paper rate stamp had just one line, so it could be separated from other mail. It was agreed that this experiment would not apply to commemoratives.

For a while there was discussion over priorities at Harrisons, and whether work on the new Regional definitives should proceed first: however, design development on the Regionals delayed that project. Graphite-lined stamps were put on sale in the Southampton area on 19 November 1957, for use with the experimental Automatic Letter Facing equipment, known as 'Alf'. The stamps were issued a month before Alf came into use — on 19 December — to increase the chances that all letters posted in the area would bear the new stamps. In 1959 the range of values so treated was extended to include the 4d and  $4^{1/2}$ d. The public reaction to the stamps was certainly not adverse, but it had always been recognised that graphite was not the long-term answer (metal, such as paper clips, within the envelope could affect the results), as having to print both sides of the paper increased production costs: the phosphor option had to be developed.

Phosphor developed In April 1959 Harrisons successfully produced a phosphorescent printing ink for use on the face of stamps. At a meeting held at Po Headquarters on 19 August 1959 it was reported that the phosphor had given a satisfactory signal, especially from the white (unprinted) areas of the face of the stamp, and was medically acceptable: it reacted to a different wavelength to the phosphor used for coding. However, not all the equipment in use at Southampton could be simultaneously adapted to detect phosphor, as opposed to graphite. Initially it was possible to convert only one machine to use a phosphor scanner in place of a graphite scanner.

Therefore it was temporarily necessary to have stamps providing both graphite lines and phosphor, so Harrisons overprinted remaining graphite-lined stamps with phosphor (two bands on all values to  $4^{1/2}$ d, except the 2d with one band). The doubly-treated stamps were issued 18 November 1959 – thus it was 50 years ago that phosphor first appeared on British stamps.

The Post Office agreed to phosphor overprinting on condition that once the move was made to stamps with just phosphor bands, these be applied as part of the printing operation in order to keep production costs down. Compared with the other values, the phosphor applied to the 4d and  $4^{1/2}$ d values was less dense so as not to spoil the look of these stamps with their



pale coloured backgrounds. Officials at Post Office Headquarters were also concerned that the postmark might be erased from the 'phosphor' part of the stamp. Alternatives suggested were applying the phosphor under the stamp design, or including the phosphor in the paper coating.

In December 1959 Harrisons advised that it could now produce stamps for full phosphor scanning. As a result, all the equipment at Southampton could be converted: the machines were taken out of service on 18 January 1960. Southampton reverted to using the cheaper ordinary stamps, it being agreed, as had happened previously, that the phosphor versions would not go on sale until one month before the converted machinery came into use. The stamps with phosphor bands only were put on sale on 22 June 1960.

There were still some concerns, mainly affecting the stamps needing just one band, as any misplacement in printing the bands on the stamps could result in two-band stamps. At a meeting on 30 January 1964 it was agreed that the answer was to print the band over two stamps, on alternative columns, so that one stamp had a single band down the left-hand edge and its neighbour has the band down the right-hand edge.

Two bands in error An interesting saga appears in files at the British Postal Museum & Archive. Post Office Stores noted on 7 August 1964 that 90,000 2½ d sheets had been incorrectly printed at Harrisons with two phosphor bands, rather than one (the result of using the wrong cylinder). 27,000 sheets were destroyed as badly printed, but the question concerned the fate of the remaining 63,000 sheets. It was agreed that the stamps would be distributed to areas not requiring phosphor stamps (any Postmasters querying the stamps to be told that they were non-phosphor), and that Harrisons be paid for the stamps as if they were the non-phosphor version. ▶

The BPMA files continue: 'We will make no announcement at all to philatelic or other interests about these stamps and we should be glad to have your [Post Office Stores] assurance that in these circumstances you can see no reason why any public notice — philatelic or other — will be drawn to them. You will, of course, ensure that these stamps are not sent to the Philatelic Bureau (or to Edinburgh HPO) as stock — either of normal or phosphor.'

Naturally stamp collectors spotted the mistake, and it is listed in Stanley Gibbons' *Great Britain Specialised Stamp Catalogue Volume 3*.

The automatic facing experiments were extended to Glasgow, Liverpool and London, and later to Norwich, until the mechanised cancelling and mail spread nationwide in 1969/70.

Great Britain had been a pioneer in the work of automatic letter facing, with Canada being the next to adopt the idea, with trials in Winnipeg that started in May 1963 •

## Commemorative covers New this month



Nene Valley Railway A cover was serviced on 18 August, the day of issue for the Royal Mail Post Boxes miniature sheet. The cover bears an NVR railway letter stamp and the miniature sheet/stamp is cancelled by a special Penfold postbox handstamp. Prices £6.50 miniature sheet, or £3.50 single stamp. Postage 50p ●



Bletchley Park Post Office FDC (edition of 500) for the ICC World Twenty Final at Lord's, in London, featuring a painting of the Cricket Club at Entebbe by Kathleen M Persse. A 1st class Union Flag stamp with a cricket ground lead is cancelled by a 21 June special handstamp. Price £12.50 plus £1.50 postage ●



GB Covers A limited edition of 40 official first day covers has been produced, featuring a portrait of William Shakespeare and his house in Stratford-upon-Avon. Serviced with the set of Eminent Britons stamps and cancelled with a special Shakespeare Way, Feltham, Middx handstamp. Each authorised and numbered.

Price £16.50 plus £1.50 postage and packing. Remittances payable to GB Covers ●



Scottish Bible Society This cover, issued for the Society's bicentenary, bears a Scottish St Andrew's Cross stamp with orange 9p stamp to make up the 1st class rate. Cancelled by an Edinburgh CDS on 4 August, the bicentenary day. An insert shows how the 150th anniversary was marked, then known as the National Bible Society of Scotland. Price £2 postpaid; remittances to Scottish Bible Society •