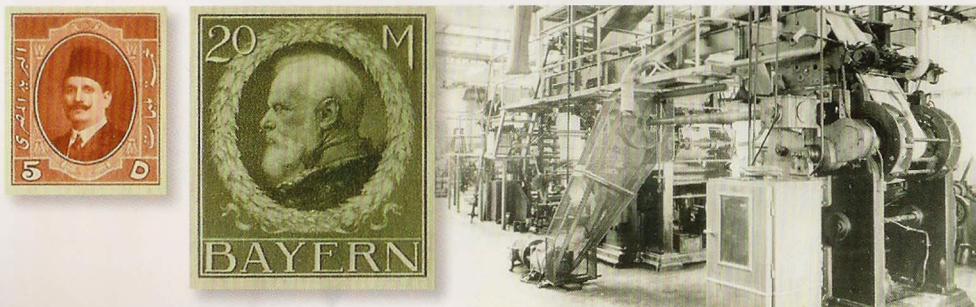


75 years of GB stamps by photogravure



From left: proof impression of one of the Harrison Egyptian photogravure stamps of 1923; imperforate Bavarian stamp from the world's first series of photogravure printed stamps; and a Timson photogravure press, as used at Harrison up until the early 1970s.

THIS MONTH marks 75 years since the introduction of photogravure printing British stamps, a process still preferred by Royal Mail for definitives.

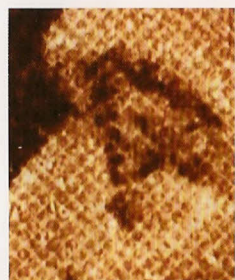
Photogravure stamp printing was started in Germany in 1914 when F A Bruckmann produced stamps for Bavaria, which to this day are regarded as an excellent use of this process. The Bavarian stamps were clearly an important development, and it was not long before Mexico (1917), Britain (the 1918 Waterlow War Tax stamps), Czechoslovakia (1919), Bulgaria and Württemberg (1920) followed Germany's lead. In 1921 Harrison printed 6d National Savings stamps by photogravure, and started a love affair with a printing process that would later be so significant to them.

The first photogravure postage stamps printed by Harrison depicted King Fuad's portrait on a 1923 Egyptian stamp. Use of this process came about by accident, when intaglio proofs were not ready in time and photogravure versions were substituted and favoured in Cairo. Assistance with the printing of these stamps was sought from Dutch company NRM, who also helped train Harrison staff in the skills required for mass production and creation of cylinders.

The Egyptian and subsequent contracts for other countries paved the way for Harrison to win the contracts to print British stamps by photogravure between 1934 and 1997. (De La Rue re-entered the marketplace by default when they acquired Harrison that year and currently shares all stamp production with Walsall/Cartor, while Enschedé lost its contract recently in a retendering exercise.)

The process Photogravure printing uses fluid inks applied to a cylinder and held there in microscopic cells recessed into the plate/cylinder. Excess ink is removed with a doctor blade and the ink is transferred from the cells onto the paper. It offers increased security due to its high set-up costs when compared to lithography.

At one time collectors encountered only stamps that employed a photographic process in manufacturing the cylinders, hence 'photogravure', but the advent of computer-engraved cylinders brought a need to differentiate, as photography is no longer a part of the cylinder manufacturing process. The term 'gravure' is now used to describe modern production.



A detail from the 1½d stamp opposite demonstrates the grid pattern characteristic of photogravure; it is created by cells recessed in the cylinder.

A history of the process, by Glenn H Morgan

Definitive highlights Photogravure had not been considered viable for the 20 million stamps consumed daily in Britain until late 1932, when the GPO invited tenders for the contract set to expire at the end of 1933. Although the price was £2,500 a year more than by retaining letterpress, Harrison was asked to print 40,000 experimental sheets of the ½d and 1d values by photogravure, largely on aesthetic grounds.

To fulfil their new contract Harrison acquired premises at High Wycombe, purchased the appropriate equipment, employed and trained extra staff and undertook extensive printing trials with the GPO. Finally, a new penny halfpenny photogravure stamp appeared on 20 August 1934, eight months later than originally planned, with the rest of the set appearing over a lengthy period. Harrison had maintained stamp supplies in the interim by using letterpress.

Of the new stamp, the Postmaster General, Sir Kingsley Wood, stated that the design offered: '...a more artistic effect than surface printing' and while *The Morning Post* praised the print quality, it was less than complimentary about the design and hoped that the PMG: '...does not consider he has attained an immutable perfection'. *The Daily Mirror* said: '...they show better workmanship in engraving than the old ones'. Printing trade journal *Printing* felt that: '...Harrisons have done a good job' and sought stamps 'as pictorial as those of many other countries; we now have the process, we want the design'.

The philatelic press generally favoured the new stamps, believing them to be a big step forward in colour and appearance. Charles Nissen, the British stamps specialist, thought that the head was too large relative to the frame. He also doubted that photogravure as a process would cope with the enormous output needed; thereby missing the fact that photogravure excels at long print runs.

Early problems had been experienced with production, for perforations had to be precise to one hundred thousandth of an inch and not impinge on the design. To help punch the holes centrally to the gutter between the stamps, three ever-reducing design sizes exist for the 1d and 1½d values – known as Large design (18.7mm in width), Intermediate (18.4mm), or Small (17.9mm). ½d and 2d values are found 18.4mm or 17.9mm, while remaining values are all 17.9mm.

Little changed until bicoloured Machin 1s6d and 1s9d values appeared in 1967. During 1977 high values first utilised photogravure, and in 1979 Harrison saw its near-monopoly first eroded when the 8p definitives were printed by Enschedé, largely due to the risk of UK industrial action. ►

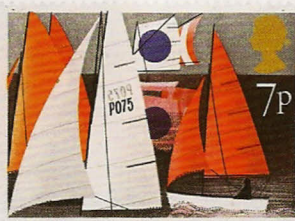


The 1934 1½d was the first photogravure-printed British definitive stamp.



Over the next few years, Harrison saw three other printers joining Royal Mail's roster, using lithography initially (Questa and Walsall), or solely (Waddington). Enschedé printed the 1991 18p definitive using computer-engraved cylinders which virtually eliminated constant flaws and sharpened the stamp image, while Harrison continued with acid-etching until 1996. As Royal Mail sought increased security for its stamps, Walsall's first gravure definitives were issued in 1997, and Questa followed in 1998.

A growing number of high-security definitives are now printed in gravure on self-adhesive paper, heralding an exciting new era for collectors.



Top: a modern gravure stamp printing press.

Above: a 1935 Silver Jubilee stamp, from the first gravure commemorative stamp issue; a Sailing stamp of 1975 using Jumelle combination printing in intaglio and photogravure; and one of the 1966 Hastings stamps, gravure printed in nine colours.

Commemorative highlights The Silver Jubilee stamps of 1935 were the first photogravure printed commemoratives. There was little technical innovation until Harrison perfected multi-coloured photogravure printing for large web print runs, as first used on the bicoloured Europa 1960 stamps. Three-colour stamps started in 1961 (CEPT), and in 1963 the National Nature Week 4½d value used five. Nine colours were used on some of the Hastings (1966) and EFTA (1967) stamps and a few much later issues matched this number.

In 1972, the Harrison Jumelle press was first used for part of the 3p Royal Silver Wedding run, while Jumelle combination printing in both photogravure and intaglio was first employed in 1975 (Sailing). Nothing very innovative happened in the 1980s. 1994 saw Enschedé print its first gravure special issue (Europa: Medical Discoveries). Walsall followed in 1997 (Europa: Horror Stories) and Questa in 1999 (Millennium: Patients' Tale). Harrison first used computer engraved cylinders in 1996 (Centenary of Cinema) and a De La Rue imprint first appeared on a British gravure special stamp in 1998 (Children's Fantasy Novels) after buying Harrison the year before, such was the time lag between printing and issuing stamps at that time.

With the falling use of stamps and smaller print runs, gravure's stranglehold on British stamp printing has been broken, and the use of lithography is in the ascendancy due to the quality now achievable by offset. Only time will tell whether gravure stamps continue to be commissioned by Royal Mail, but Harrison and Sons will forever be remembered for introducing this printing process to British stamps back in 1934 •

Glenn Morgan's Bulletin publication *British Stamp Printers* is still available from Tallents House. It covers the printing process, the birth of a stamp and printer histories, and includes many colour images. (20 A5 pages. Order code BS003, price £2.95).

Text © Glenn Morgan 2009