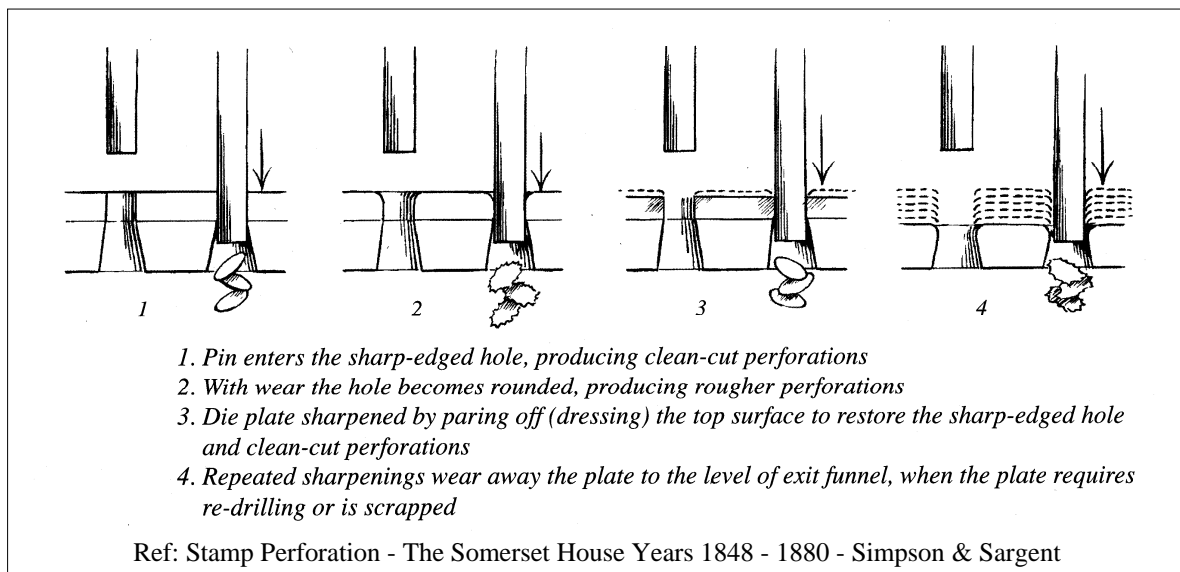


## PERFINS - FIRST PRINCIPLES

Dave Hill

I am always interested in how things work and thinking about perfin production took me back to first principles, so I thought I might as well take you with me!

Perforating machines share some common principles, stationary female die and guide / stripping plates and male moving pin plates, these are all drilled together so they line up. The pins are retained by a further plate, pins I seem to remember are 0.035" dia. which is less than a millimeter. Travel is not much, about ¼", the pins never leave the guide plate, a lot of rubbish is talked about bent or broken pins. Such an occurrence would almost certainly mean a seriously broken machine! The square edge of the pin and die hole are the cutting edge, examine your hole punch, it is the same principle, but larger.



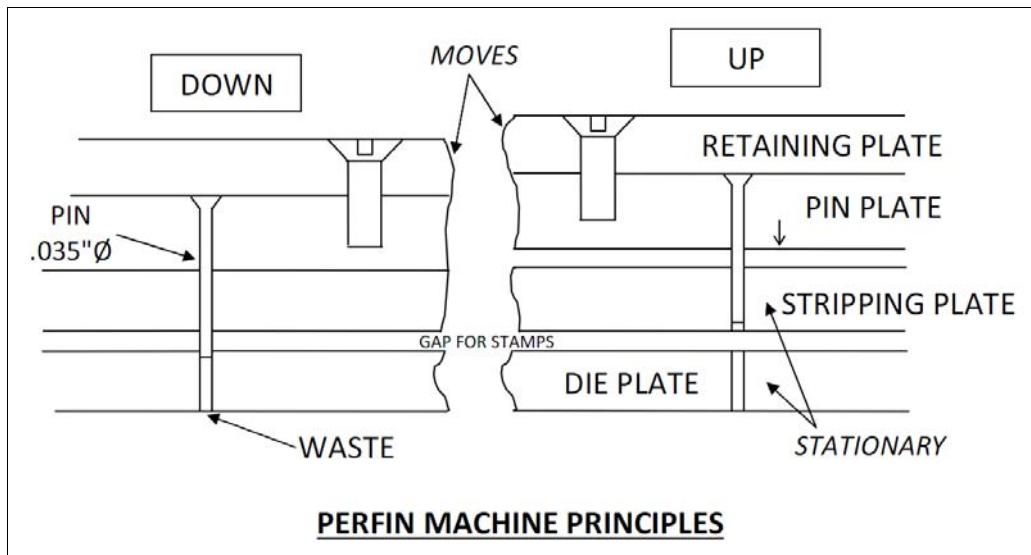
Whilst a blunt pin can be restored by running a sharpening stone square across the ends, the die is more difficult. I have heard of “dressing” it, small sharp blows with a hammer closing the holes but this doesn’t sound possible or practical, the only certain method is to remove metal by careful filing or planing. I have heard of machines with varying length pins to reduce the effort of perforating, pointed pins would only hamper the work. The guide plate also “strips” the perforated stamps from the pins, otherwise the stamps would be left impaled on the pins.

I wonder if pins are still available in the UK, they used to be made by Needle Industries, to see and own a pin would be instructive. But perfin machines have no automatic motion to advance the sheet of stamps which results occasionally in perforated stamp margins. They simply rely upon the eye and speed of the operator. Sloper's told us that a few of their female operators could keep their foot depressing the floor switch and advancing the sheet of stamps as quickly as the machine could rise and fall. Sloper's own machines would have all been originally treadle operated by men. They probably electrified the machine drive and changed to female operators (who were quicker anyway) during WWI.

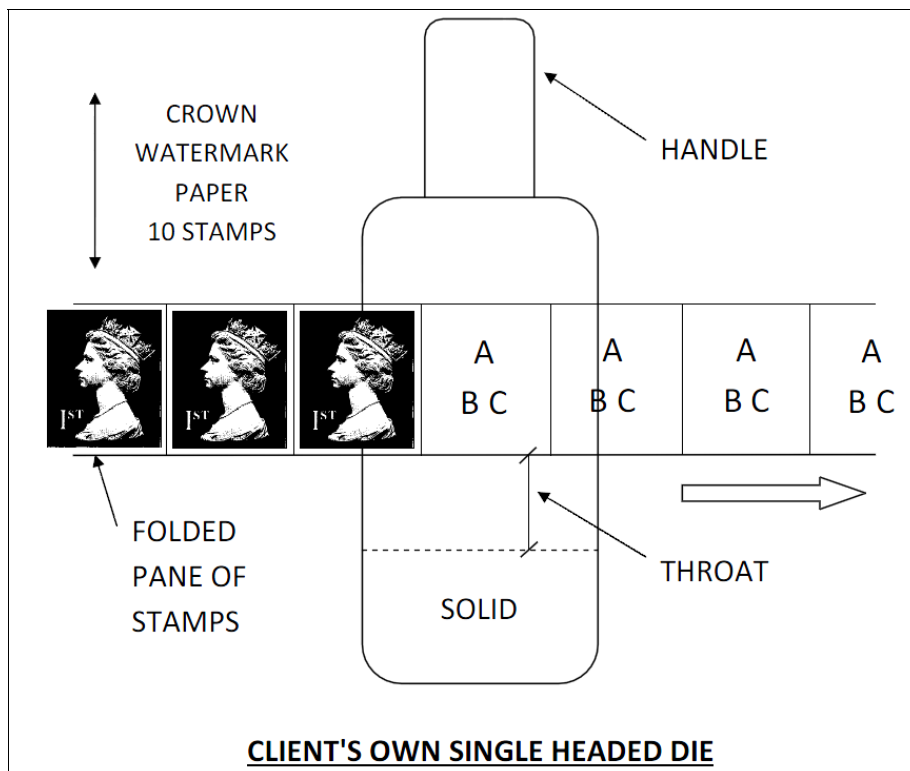
Sloper's own multi-die machines, with which they perforated stamps for clients at Sloper's works were 12, after decimalisation 10 stamps wide, supported by a pillar each side, see photo. Their own single die machines required the use of a one pillar machine with a deep throat to enable the perfin to be positioned anywhere across the width of the sheet of stamps. My mind boggles when I think how Waterlow's(?) SPG machines were constructed, were they single die machines or are multiples known? Braham offered to perfin stamps for free, for the discount he got on the stamps alone, where was the profit in that? Allchin was producing a lot of stamp coils by joining sheets together, he offered them perfined, were they done in the sheet or the coil? Cummin's in America made a hand operated machine which perfined a sheet of stamps 10 wide (the American way!) but it always looked ungainly and impractical to me.



Treadle operated multi-die machines were made for client's own use occasionally, for example the Hurlin machine of the HMSO, preserved in the Post Office Museum (Debden) I'm unsure how these coped with stamps with varying inter-pane gutters, or if they had to. I've only just seen that the 9d stamps on crown and later papers were always oddly made up. I wonder how many were perfined on multi-die machines.



The principle of a perfin machine for the client's own use is illustrated, it only needed a shallow throat, all stamp margins would be removed, they only got in the way, but before the days of Sellotape they found many uses! 1d reds and 2d Blues came in whole sheets of 12 wide x 20 long stamps, the bantam ½d was half size and usually got its own perfin die, also perhaps larger, high value or revenue stamps but this was the early days when it was unusual to perfin stamps, before they became popular. I'm unsure if any of the odd spray or orb watermark papers were perfinned or how multi-die machines coped with the different widths.



The later crown and other watermark papers had panes of stamps 10 deep x 12 wide after removal of the margins and gutters and I would have thought that the easiest way of dealing with these was to split the pane into 5 stamps deep and concertina fold them. This would result in inverted and reversed Perfins and I would like it written in letters 6' high **these are of no significance whatsoever!** But I always thought that perforating machines, even when well-maintained could only deal with 3 or at best 4 thicknesses of stamps, leading to “blind” holes on the bottom stamps or necessitating splitting the panes differently. I have assumed the die and stamp is perforated upright in which case the stamps move sideways in the process of perforation but there are many possible permutations.

Machines which cancelled the stamp on the document would need a deeper “throat” the stamp was rarely positioned conveniently on the edge of the document but these are not true security perfin machines, merely cancellers and we do not list them.

Although there are “carpet” or “blanket” die machines whose dies cover more than one standard postage stamp, I will be writing more about these in the next issue, wondering what the reason was for them.