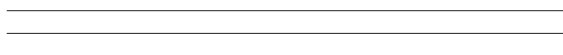




A JOURNEY THROUGH YOUR PENCIL CASE



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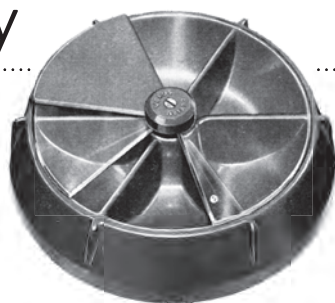
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CHAPTER

1

Velos 1377 revolving desk tidy





I grew up in Worcester Park, a small town in Surrey. As a child, I would regularly visit Fowlers, an independent stationer on the high street. This shop had always interested me. Yes, there was a bigger WHSmith at the bottom of the hill, and yes, I spent quite a lot of time looking at pens in there too, but it wasn't the same. Fowlers seemed more serious about stationery. WHSmith had books and magazines and toys and sweets and videos. Fowlers were more dedicated. They sold different types of clips and tags, not the sort they sold in Smiths. They had foolscap suspension files. Office supplies. Grown-up things. It was a quiet shop. Ponderous. A bit like a library. Or at least half of it was. The other half was given over to greetings cards and wrapping paper and cheap gifts. That side didn't interest me. But this half – my half – captivated me with its racks of pens and pencils. I would spend long periods of time here studying these objects. Picking them up, turning them over in my hand. Sometimes I'd even buy something.

A few years ago, I returned to Fowlers. It was still the same as I remembered it; very little had changed. Even the man behind the counter was the same. There wasn't anything in particular

that I needed, but I wandered around the store, letting my eyes drift from item to item. Behind some packets of record cards (Silvine, 204 mm × 127 mm, ruled), I saw a rather tatty-looking box. It was square, about six inches by six inches and about two inches tall. On the top, in white lettering on a lurid pink background, it said ‘VELOS 1377 – REVOLVING DESK TIDY’, and underneath in slightly smaller writing ‘Six compartments with cover’ next to a black-and-white picture of the revolving desk tidy itself. I picked it up. I’d never heard of Velos before, and looking at the box, I’m not surprised. This desk tidy was quite possibly older than me. The box looked like it must have been from the late 1970s. It was covered in dust. It didn’t look like anyone had picked it up for years; it had just been stuck at the back of a shelf, forgotten about. I had to own it. I took it to the counter to pay. The man behind the counter looked for a barcode, but there wasn’t one – it came from a time before barcode scanners. Fortunately, it had a faded price sticker in one corner: £5.10 (this couldn’t be the original price, surely? It was too expensive. When had the price been changed?). The man behind the counter shrugged, keyed the price into the till and, as I paid, he made a note of the item in a little stock book.

When I got home, I opened the box carefully – I didn’t want to tear it. Inside, there it was: the 1377 Revolving Desk Tidy. The desk tidy was in perfect condition – not surprising as, despite its age, I’d effectively bought it as new. Small and round and ‘moulded in high impact styrene’, it had a transparent cover showing its six compartments. The round ‘tidy’ was divided into six segments ‘for all types of small sundries’, and looked a bit like a grapefruit cut across the middle. The cover had an opening the same size as one of the compartments and a little lid you could slide across to open or close. You could spin the whole thing round so whichever compartment you wanted to access was under the opening, allowing you to reach in and take some paperclips or drawing pins or whatever else you decided to fill your six compartments with

(the picture on the cover showed the desk tidy empty; there was no ‘serving suggestion’ – Velos customers were trusted to use their initiative).

I filled my desk tidy carefully. The first compartment is currently filled with sixty-seven steel paperclips. I can’t remember when I bought these paperclips, or where I got them from, and the clips themselves offer no clues. I can only apologise for the vagueness of my records. But before you criticise me for this oversight, perhaps I am simply a product of my environment. As a supposed civilisation, we have been so blasé – so arrogant – that we haven’t even bothered to keep a proper record of who invented the paperclip.

When you think of paperclips, you immediately think of a specific form – the familiar round-ended, double loop design. The wire trombone shape. But that’s only one variety of clip; the ‘Gem’, which gets its name from a British company called Gem Limited, who, even if they weren’t directly involved with the development of the clip, were clearly able to market it well enough that the name stuck. There are many different (and some might say better) types of paperclip. How can it be that we have no real idea of who invented it? One difficulty is that with so many different forms, so many different designs, there are just as many pretenders to the throne. Claims are advanced and myths develop. One common theory is that the paperclip was invented by a Norwegian patent clerk named Johann Vaaler in 1899. His patent application (filed in Germany in 1899 and then two years later in the United States) was for a clip made from ‘a spring material, such as a piece of wire, that is bent to a rectangular, triangular or otherwise shaped hoop, the end parts of which wire piece form members or tongues lying side by side in contrary directions’. One of the illustrations he included in his application did in some way resemble a Gem, but as the Early Office Museum web site (my favourite place on the internet) so brutally puts it, ‘his designs were neither first nor important’.



Vaaler's title as the supposed father of the paperclip was given to him posthumously. And as the story grew, it accidentally managed to turn him into a folk hero of sorts in Norway. During the years of Nazi occupation, the paperclip was worn as a symbol of resistance in Norway. This wasn't actually anything to do with Vaaler being Norwegian (even though Vaaler's original patent application had been rediscovered in the 1920s, the belief that he'd invented the paperclip didn't become widespread until later), but it was meant as a subtle sign – the binding action of the paperclip acting as a reminder that the Norwegian people were united together against the occupying forces ('we are bound together'). In the years following the war, belief that Vaaler had invented the clip began to spread. The story started appearing in Norwegian encyclopaedias and soon merged with stories of the resistance to elevate the paperclip into something approaching a national symbol. In 1989, the BI Business School erected a 7-metre-tall paperclip in Vaaler's honour on their Sandvika campus (this statue was later relocated to the Oslo campus). However, the statue is not actually of the same design Vaaler patented – it's a modified Gem (one end of the clip being slightly squared). Similarly, ten years later, when Vaaler was commemorated on a Norwegian postage stamp, it was a Gem which was shown next to his picture rather than the clip he actually designed (although a copy of his patent application was included in the background).

Closer to the Gem than Vaaler's design was a patent issued to Matthew Schooley in 1898 for his 'Paper Clip or Holder'. Schooley's design was an improvement on the other clips available at the time, as he explained in his patent application:

I am aware that prior to my invention paper-clips have been made somewhat similar to mine in their general idea; but so far as I am informed none are free from objectionable projections which stand out from the papers which they hold.

Whereas Vaaler's design was a flat loop of wire, Schooley's design coiled round upon itself, allowing it to lie 'flat upon or against the papers which it binds together, presenting no projections or appreciable points upon which other objects may catch'. Furthermore, Schooley added, 'by its construction there is caused no puckering or bending of the papers'. It was an improvement, but it still wasn't quite a Gem.

The first time a recognisable Gem-type clip appears in patent literature is in 1899. William Middlebrook applied for a patent for a machine to automatically manufacture 'wire clips for binding or securing papers in lieu of pins' and included in the patent application is an image showing the 'general shape and character' of the clips the machine manufactured. The clip in this illustration is clearly a Gem-type design, but the clip itself wasn't part of the patent, it was just to show what the machine could do. However, the Gem was actually known for at least a decade before that. Professor Henry Petroski (author of *The Evolution of Useful Things*) cites an 1883 edition of Arthur Penn's *The Home Library*, which celebrates the Gem for its superiority over other devices for use in 'binding together papers on the same subject, a bundle of letters, or pages of a manuscript'.

While the anonymous inventor of the Gem pre-dated both Schooley and Vaaler, there are several even earlier paperclip designs. The most common recipient of the title 'inventor of the paperclip' is Samuel B. Fay, although it wasn't even paper that he had in mind when he developed his clip – his 1867 design was for a 'Ticket Fastener' intended to attach 'tags or tickets to fine fabrics to supply the place of pins, which have heretofore been used for that purpose, and which injure the fabrics to a greater or less extent by perforations' (although as he explained in his notes it could also be used to attach two pieces of paper together). Fay's clip consisted of a length of wire bent 'so as to form a loop at one end, or a bifurcated bar, the legs of which are then twisted or turned to cross each other, thus forming a spring clasp'. This design is more or less

identical to the brass Premier-Grip Crossover Clips which fill the second compartment of my Velos desk tidy.

In his 1904 autobiography, the philosopher Herbert Spencer claimed to have invented a 'binding pin' as far back as 1846. Today best known for coining the phrase 'survival of the fittest', it seems Spencer was also something of an inventor. The device was intended to hold 'unstitched publications' such as newspapers and periodicals together for ease while reading (the newspaper 'being opened out in the middle, these binding pins, being thrust on to it, one at the top of the fold and another at the bottom, clipped all the leaves and kept them securely in their positions'). Spencer signed an agreement with Messrs Ackermann & Co. to produce and sell the binding pins. In the first year, sales of the pins made around £70 (the equivalent of £6,150 today) but sales quickly began to drop off after this. Initially, Spencer blamed Ackermann for failing to sell more of the clips ('I supposed the fault to be with Mr Ackermann who was a bad man of business, and who, failing not long afterwards, shot himself') although he later claimed it was the public's 'insane desire' for novelty which was so 'utterly indiscriminating that in consequence of it good things continually go out of use, while new and worse things come into use: the question of relative merit being scarcely entertained'. So much for survival of the fittest.

Prior to these devices, straight pins had been used for attaching papers; however, there are several obvious problems with the pin method. The main one being that pinning involves puncturing the paper. Whatever papers you wanted attached together are now attached together but they also now have holes in them. Hardly ideal. A system which avoids this is clearly an improvement. Also, anything without the sharp points of a pin would be kinder on the fingers. A clip, such as the one designed by Fay, seems, in retrospect, such an obvious improvement on the existing pins that you wonder why no one thought of it earlier. But this question – 'why didn't anyone think of it

sooner?’ – sort of misses a fundamental point in the process of design. Within its own ecosystem, the straight pin worked fairly well. Yes, there were problems associated with it, but without a viable alternative, there was no point in complaining. There was nothing to force the pin to develop. It was happy as it was. The ecosystem in which the pin lived needed to change before the pin could evolve. In the late nineteenth century, three things happened which changed that ecosystem and allowed a new species – the paperclip – to emerge.

Most obviously, for the paperclip to exist at all, you need the technology to reliably produce steel wire with the elastic properties which the clip requires in order to function successfully. Secondly, you need to be able to manufacture and sell these wire clips at a cost which is acceptable to the public (even though people may have been unhappy with their papers being pierced by straight pins, they were willing to accept this aesthetic assault as any alternative was too expensive to be practical). Finally, you had a burgeoning bureaucracy – a side-effect of the industrialisation which enabled the first two factors. It was the birth of the office environment and a new infrastructure was required. More paperwork necessitated some new method of organisation; the era of the paperclip was born.

As none of these forces was unique to any particular place, it’s not surprising that during the later years of the nineteenth century a multitude of designs emerged in various countries more or less simultaneously. From 1867 onwards, a bewildering number of patents were applied for by a host of inventors all hoping to find the best way of using a single piece of metal to attach two or more sheets of paper together. These alternative clips took many forms. There was the ‘Eureka’ clip, a sort of segmented oval shape, cut out of a sheet of metal with a central prong to hold the papers together, patented by George Farmer in 1894; the ‘Utility’ clip from 1895, which was similar to an old-fashioned ring-pull, folded back on itself; the ‘Niagara’, which was basically two of Fay’s clips joined

together, patented in 1897; the 'Clipper', a pointy version of the Niagara from the same year; the 'Weis' clip, an equilateral triangle within an isosceles, patented in 1904; the spectacularly named 'Herculean Reversible Paper Clip' where the wire was bent into two slightly wonky isosceles triangles; the 'Regal' or 'Owl' clip, which sort of looked like an owl, if the owl had been raised in a rectangular cage which was too small for it and grew up deformed into a weird boxy shape; and the 'Ideal' clip, a complex butterfly-shaped wire arrangement, patented in 1902. The list goes on and on: the 'Rinklip', the 'Mogul', the 'Dennison', the 'Ezeon'.



A man named George McGill submitted around a dozen patent applications for new paperclip designs between 1902 and 1903. He must have been a restless man, obsessed with stationery (he also designed paper fasteners, ticket holders, and staplers). I imagine him constantly doodling new designs on the back of envelopes and scraps of paper, a frustrated wife despairing as she suspects that while they're lying in bed together or having dinner, part of his mind is constantly elsewhere, searching for the perfect wire clip design. How close did he get to realising his dream? It seems he had limited success. The Early Office Museum specifically limit their collection of early paperclip designs to those registered before 1902 because of the chaos caused by McGill:

We did not include paper clips that were patented after 1902 unless we could find evidence that they were produced. We used that cut-off date because 13 paper clip patents were awarded in 1903, 10 of them to one inventor, George W. McGill. With the exception of McGill's design for the Banjo paper clip, we have found no evidence that any of these was produced or advertised.

It may well be true that many of McGill's designs did not progress beyond the registering of a patent, but the Early Office Museum are being a bit unfair on the man. At least one other

of his 1903 designs went into production – I have a box of Ring Clips ('Patented to Geo. W. McGill, June 23 & Nov 17 1903') on my desk.

Despite this period of wild experimentation, the narrow double loop form of the Gem has remained the most enduring paperclip design. Often cited as an example of 'perfect' design, the clip has featured in exhibitions at the Museum of Modern Art in New York and the Vitra Design Museum in Germany. Emilia Terragni, one of the editors of the *Phaidon Design Classics* series, named the paperclip as one of her favourite objects:

Because in the paperclip you have the essence of design: you have beautiful design; you have a simple mechanism; you have something that's never changed in a hundred years – it's still the same. It's still very functional and everybody uses it.

But, is the Gem paperclip really as perfect as so many claim? In articles about the beauty of the clip's design, it is always shown in isolation and never shown in use. Once it is actually used to attach papers together, half of the classic form is hidden. If the clip is used to hold together a particularly thick document, it can become distorted and bent out of shape. In many ways, its functional qualities have become overstated as the simplicity of its design has become cherished.

The claim that the design has not changed in a hundred years is also questionable. It's true that the paperclips available today are very similar to those illustrated in advertisements from the 1890s. But there are also lots of paperclips that share many of the characteristics of the Gem, but which have been given subtle tweaks here and there. You can get 'lipped' clips, where the bottom of the inner loop is raised, to allow the clip to slide on more easily (although this idea has been around since George McGill's patent of 1903). Another variation is the 'Gothic' clip, designed by Henry Lankenau in 1934 – whereas the classic Gem has rounded Romanesque ends, the Gothic clip has a