

## Inventors inbox

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By Mark Sheahan and Patrick Andrews



Many intriguing objects from the Victoriana collection of Maurice Collins were recently on show at the 'Weird and Wonderful Gadgets and Inventions' display at the British Library. Inventors Mark Sheahan and Patrick Andrews discuss whether any of these fine examples could be useful to us today.

### Cheque stamper

Patrick: Forgery has been big business ever since people began exchanging symbols instead of bartering for goods. Paper is clearly a good medium for such symbols, as it's highly portable and can be printed in some very-hard-to-reproduce patterns. Anybody with some ink, a practised eye and a steady hand, however, can easily change a 6 to an 8 or a 0 to a 6, so this device allows the payment amount specified on a cheque to be embossed into the paper instead. The user moves the cheque laterally and then presses a knob to actually do the embossing of the chosen numeral.

But why are the numbers arrayed in that order? Why is there no 0, just an \*? There is clearly some rationale behind all this and it's intriguing that this tool seems to reflect so much of the psychology of the time.

I love the way that all the inventions at this exhibition are made to such high quality. Before plastic had been dreamed of, this kind of stuff was built to last, as well as having an aesthetic quality that mass production has largely stifled (I don't much like the curlicues-in-brass-and-enamel features, but I really admire the skill of the craftsmen/women).

In these days of online trading and digital certificates, it's a joy to be able to understand the basic mechanism at a glance. Clever, too, in that it would still be pretty hard today to alter the numbers without being discovered. Sadly, cheques themselves are on the way out, so I wonder if there's a modern-day application for such a robust numeral embosser?

Mark: It is true that cheques are checking. They probably used an \* rather than a 0 because, as you say, a 0 can easily be changed to a 6. Yes, I can see some modern-day applications but, instead of numbers, embossing a seal type image or a logo. Not for stamping cheques (although still preventing forgery), but to mark each page in a contract – making it difficult for the other party to add a new page. Some of the larger companies go as far as having their own paper watermark, so the 'paper stamper' may be a cheaper alternative.

On the promotional front, an embossed logo can look very effective and stylish on hardcopy. My guess is that there is something along both these lines already on the market, made primarily from a plastics structure and housing a die casting. It's called progress!

Patrick: Hmm... given the widespread wrangling over DRM technology, I reckon real progress may be more about trust and open-source than contracts-on-parchment.

### Sat-nav

Patrick: This little beauty takes advantage of the fact that all roads are locally linear, so you can store a 2D route on a (nearly) 1D scroll. Even in the era from which it comes, there were quite a few roads and, without motorways, the number of A-to-B options was probably greater than today. This resulted in the need to carry around a boxful of maplets... hard work when rooting around to find the most direct route between London and Brighton.

Still, when the pace of everything was slower and sat-nav was something that HG Wells might have suggested, I can't imagine newspaper headlines saying 'Charabanc dives over cliff due to error in MOT wrist maps'.

Nowadays, someone might make a 'steampunk' version driven by motors, but the original user would have had to manually wind the thing onwards – probably while wearing gauntlets and goggles. Can you imagine this on a wet day, in an open cockpit?

Mark: Is it just me, but I find myself arguing with my Sat-Nav? Its dulcet tones irritate me while I am driving, a bit like a back-seat driver. I have tried changing the voice and level, but to no avail. This watch idea is clever for the time, but it would be better if it was

larger and attached to the window, much like a modern Sat-Nav. I would certainly use it, although I am sure health and safety would have their say. The 'maplet', for directions between London and Brighton, is great fun, having the word STOP printed after Brighton, as if you would forget.

Patrick: I love the idea of getting verbal Sat-Nav updates in the accent of the county in which one is currently lost!

## Whistling kettle

Patrick: Tea seems to be an abiding theme within the exhibition. It has both sustained and challenged empires, so making a great cuppa obviously occupied inventors as much then as it does now. Caractacus Potts (of 'Chitty Chitty Bang Bang' fame) would be proud of the idea of using the steam itself to announce the imminence of tiffin. Why did the maker decide to cut the conical body off at that angle? It's such a stylish shape but quite a lot harder to braze the non-circular base into place.

This could easily appear in a modern kitchen catalogue. Just imagine: '£185, from the Gordon Ramsay anti-arthritis collection.'

Mark: The whistling kettle is thought to be Scandinavian and made around 1875, but I think it was an earlier British invention (does anyone know?). I think that they cut the conical body in this way as it meant you could get closer to the teacup before starting to pour.

Reverting to a whistling kettle changed my life. Up until then, on average, I killed one a week. It became a common bin ritual in my office. It did not take much; a telephone call, or being in deep thought about something or other, to forget that I had put the kettle on, resulting in a sauna and a heap of hot metal and molten plastic.

Patrick: There was a woman who invented a generic plastic pouring insert a few years ago – making the spout-to-cup distance less critical... I wonder what happened to that?

Sounds like you used to need a handy supply of fire extinguisher grenades, Mark.

## Eye massager

Mark: You pressed this elaborate contraption against your face (like binoculars) and squeezed the rubber bellows to blow a massaging air into your eyes. We could all do with something to rejuvenate or ease our sometimes swollen, sore, dry and tired eyes but, is this 1920s eye massager (clearly made to impress) the solution? Or is it just pulling the wool over your eyes? The latter, I think.

Is there a need for something like this today? Apparently, yes. Eye strain and fatigue is more prevalent than ever, generally due to extended periods in front of a computer screen and long-distance driving. There are modern day equivalents and they promise more: improved vision, delaying the onset of presbyopia, nasal congestion relief, aiding stress management and relieving sinusitis, to name but a few. They still blow air into your eyes, but look much cooler to wear (like skiing goggles) and can include other subtle acupressure, rhythmical vibrations, and pinhole and magnetic therapies.

In my opinion, it's a load of hot air. I suggest you turn the computer or TV off and have an early night, it works for me.

Patrick: I believe it's been established that one reason sleepy children rub their eyes is to do with activating facial nerves which then cause them to relax pre-bedtime.

I know some adults are keen on having their scalps massaged, so maybe there is scope for some kind of buzzer-filled helmet with a vibrating eyemask?

I agree completely about the TV, but the computer is harder for me to stop squinting at. I'm sure somebody has invented a program that flashes onto one's screen every hour or so and encourages the viewer to exercise visually by, for example, detecting and following a target shape and then crossing and uncrossing the eyes.

## Car map holder

Mark: It looks a bit like an implement of torture, doesn't it? But this is only a means to hold a road map open, rather than stopping, while driving and is clearly not road legal now.

You placed the map through the top and the curved metal rods underneath fitted over the driver's leg. It is elegantly over-engineered, with a beautifully turned wooden handle that could easily stick into your sides, or worse, in an accident.

Patrick: I guess it must have been easier to use, given the generally lower speeds people drove at when it was first invented. Those undertaking long-distance driving would have been few, I suppose, with maybe only chauffeurs or military drivers travelling any significant distance. Certainly, the cost of many of these pre-plastic inventions would have been high – probably only available to the minority who could afford cars.

Even the idea of mass-produced consumer goods was relatively new, hence the quality of many of these artifacts.

## Fire extinguisher grenade

Mark: A popular method for putting out small fires in late Victorian and Edwardian times was this hand-grenade-looking device. The fire extinguisher grenade was thrown into the base of the fire, hard enough to smash the glass container on impact. It was probably filled with a special chemical mix, such as a carbon tetrachloride, which vaporised and extinguished the fire by producing a dense blanket of fumes, literally starving the fire of oxygen. I'm not sure how effective it was.

Nowadays, if the fire didn't get you, you could be taken for a terrorist and shot. That said, it is very decorative compared to the fire extinguishers we use today. Perhaps there is a new market for an aesthetic modern-day equivalent?

Patrick: I'm pretty sure that the most popular way of putting out a fire has always been to fling a bucket of water in its general direction. You might well cause extra injuries by throwing and smashing glass, but the idea of getting the extinguisher right into the core of the fire has its merits.

A modern version of this could consist of an extinguisher with a fast chiller unit built in and could involve enhanced vapourisation right within the heart of the fire using, for example, a flameproof hose with a mobile, heat-seeking tip.

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