

Childhood Impressions

PAUL JAY recalls the toy presses that got him started in the letterpress business.



The SMECO "Star" press, front view (left) and rear view showing type (right).

OUR FAMILY WAS living in Michigan, USA, for a year when my tenth Christmas rolled around. Since I had recently broken some furniture in the house we were renting (accidentally, of course), I was warned not to expect anything significant from Father Christmas. Against hope, I had petitioned for a printing press outfit I had seen in the shops, and behold, my sins were forgiven—it arrived!

SUPERIOR STAR PRINTING PRESS

It was a "Cub" press made by the Superior Marking Equipment Company (SMECO) in Chicago. It was made of tin plate and used rubber type. The Cub press had a drum that would take up to 15 slots of type and print on $3\frac{1}{2} \times 5\frac{1}{2}$ -inch stock. Many years later, when the rubber tires on the drum of the Cub press had cracked and split, I found a slightly larger model—a "Star" press, also by SMECO—at a jumble sale back home in Sheffield, England, and so I bought that (along with some extra type and illustration blocks) to replace the Cub. This model was capable of printing up to 25 lines of type, on paper or thin card stock up to $3\frac{1}{2} \times 7$ inches. (SMECO also made a larger "Ace" model that would print $5\frac{1}{2} \times 7$ -inch sheets.)

SMECO's presses all worked on the same principle. Slots of rubber type are held on the large drum by the rubber tires on each side. When the drum handle on the right-hand side of the machine is turned anticlockwise, the type first passes against the ink roller. Then the tires grab the waiting sheet by the sides and pull it through, as the type is pressed against the sheet by the impression roller (just visible under the ink roller). A long lever serves to rotate an eccentric camshaft bearing the impression roller, so that with the lever forward, the roller is up and presses the paper against the type. But with the lever back, the roller is down, and the sheet will not be engaged by the tires, nor will any impression take place.

The rear view of the press reveals an eccentric shaft lever allowing the ink roller to be brought in or out of contact with the type. This view also shows how the slots of type are mounted: each end of the slots has pointed tips that are engaged into grooves on the inside of the tires on the drum. Over the years the decreasing suppleness of these rubber tires is making the press harder to use. A fair bit of force is needed to turn the drum handle to make an impression, and the skill comes in doing this sufficiently smoothly to get

reasonable inking and progressive impression. It is quite easy to turn the handle too fast and send the printed sheet flying across the floor!

The rubber type characters have a groove that engages with a corresponding groove in the metal slot used to assemble a line of type. The type height is about $\frac{9}{32}$ inches, and the 12-point body corresponds to about $\frac{1}{6}$ inch. Spaces are also grooved, but only about $\frac{7}{32}$ inch high. Long grooved rubber “slugs” (also $\frac{7}{32}$ inch high) are inserted in the slots and used as “bearers,” to which may be glued illustration blocks that come on thin rubber sheets (about $\frac{1}{16}$ inch). Care in the choice of glue is required, otherwise the illustration/bearer combination becomes permanent.

Angled tweezers are supplied for typesetting, although children find that their small fingers are just as effective—and less likely to slip and damage the typeface. The line of type is constructed by feeding from the left, and an inverted 12-point space is used to block the exit of the slot and hold the start of the line in place. Similarly, another inverted space is used to anchor the other end of the line.

The inking roller is just a hollow metal cylinder with several layers of cotton fabric glued onto it in a roll. The ink supplied by SMECO came in small bottles, and as per the expectations of my parents, it got everywhere. I still have my first triumphant impression from the afternoon of Christmas 1961. Thick dark lines appear down both sides of the page, as a result of ink being overgenerously applied to the inking roller and getting onto the surface of the tires used for the paper feed. The same first edition page also has reverse set-off on the back of the sheet, since my first turn of the handle failed to grab the sheet and therefore created an image on the impression roller. I think this is the only press I have ever owned that could do letterpress and offset printing simultaneously.

I recall taking my masterpiece from the kitchen table (cautiously and wisely protected with layers of old newspapers) and rushing into the living room to show my stunning two-word achievement (it read “Happy Christmas”) to the assembled throng. Their admiration was tempered by the sight of my hands and sleeves covered in wet black ink, and I was hastily ushered back to the relative safety of the kitchen before I could touch anything that might get

stained. (This, of course, would have blown my redemption from earlier transgressions.)

INKING CHALLENGES AND NOT ENOUGH TYPE

The inking is a weak point of this press, mostly due to the ink itself. The bottles supplied with the press contained a relatively liquid ink, but a more viscous consistency would have created better coverage and denser images from the type. Since cleanup of the ink roller is limited to wiping off any excess liquid, however, the ink dries into the fabric of the roller and has to be wetted again for the next time, whereas a more gooey consistency would probably dry with a skin and be less easily rejuvenated. In principle, multicoloured printing is possible, but would obviously require exchanging print rollers, which would not be a simple task.

Registration is a bit random, since it depends on exactly when the rubber tires grab the top of the sheet. Also the sheets really have to be full width (for the Cub and Star this means $3\frac{1}{2}$ inches) for the feed mechanism to work. Once the stock provided with the press (only about 50 sheets) had run out, I had to search shops for notepads of exactly the right width. Occasionally a friendly printer would trim some offcuts for me to the required dimension.

The presses came with some good instructions and a motivating “ideas” book that taught the basics of printing nomenclature, along with some notions of typography. There was also a catalogue for accessories, of which type was my most pressing need, since the fonts provided were few. Unfortunately, to get more type involved a process called mail order, of which my father was very skeptical, and so it was a long time before I was allowed to risk committing an order form and appropriate remittance to the care of the U.S. Postal Service.

A month or so later (my dad was still saying “I told you so”), the parcel arrived and I had some more type and some illustrations. Joy! Looking back at the catalogue (which I still have), the expensive “18pt Wedding Text” font cost \$2, and a 6×3 -inch sheet of rubber illustrations added another 60 cents to the bill. Today these amounts seem hardly worth

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An example of a ticket printed (around 1963) for the local church social committee. The scanned version captures fairly well the tone and density of the inking.

Type forme with four lines of type set.

the stress involved. The same price list shows that back then the Cub press cost almost \$4 and the Star cost \$8.49. The Ace press ran to \$12.98. I recently found adverts on the Internet selling “antique” SMECO toy presses for \$60.

With these resources at my disposal, I was able to attempt simple business cards, and when we returned to the U.K., for a few months I would print a two- or three-page mini-newspaper, which I would try and sell to my schoolmates for two pence each. The quality was terrible, but fortunately my customers were not too discerning. Some editions were under the banner of the *Monthly Herald*, a title I stole from inventor Thomas Edison. When Edison was in his mid-teens a century earlier, he had a job as a paper boy on trains running from Detroit to Port Huron, where he also sold refreshments. Realizing an opportunity for more revenue, he scrounged a flatbed printing press and type from the offices of the *Detroit Free Press* and set about publishing and selling the *Weekly Herald* on a moving train.

His two-sided, three-column 9- × 7-inch broadsheet was quite a novelty, although the spelling left much to be desired. It was much more professional than my rubber-typed offering. One feature that saved time for me was when I included a page of the “Top Ten” pop tunes (gleaned from Alan Freeman’s Sunday

afternoon BBC radio show *Pick of the Pops*), since I could have slots set up for each song and move them up and down the charts each week.

Throughput was not great, perhaps two or three sheets per minute, depending on how often it was necessary to beef up the ink on the roller. In some cases, the limited fonts necessitated doing a sheet in two steps, resetting in between to reuse the limited type available.

This was almost my first introduction to printing and was vastly more satisfying than previous playing with the famous John Bull printing outfits. I am convinced that those were designed more to keep children occupied than to be productive, as I recall many frustrated hours spent searching on the floor for the little black pieces of type, which were very difficult to manage. Typesetting with a John Bull outfit was good training for tiddlywinks.

Overall, the SMECO Star printing press was (and still is) a delightful little press to play with, and notwithstanding the risks of staining clothes with the ink, it provided many hours of constructive enjoyment, and even some trivial income. I have looked for a modern equivalent but not found one, so my daughters will in turn get their chance to play with this working antique (if the rubber tires hold out long enough—or get replaced).

TRIANG-LIONEL GUTENBERG
REPLICA PRINTING PRESS

In my workshop I have a six-inch-tall plastic bust of Johannes Gutenberg staring at me. At least I assume it is Gutenberg—it came with the press, and he does have a beard and a cap, although without the cap he strongly resembles Alexander Graham Bell, Galileo and Samuel B. Morse (whose busts came with other “replica toys” in the same series). I recall reading a few years ago that at the end of the 19th century, America was saturated with small busts of famous musical composers, but although they were diligently labelled “Bach,” “Beethoven” or “Schubert,” they were in fact all based on two designs—one with, another without a beard.

Anyway, following my successful experiences with the SMECO toy presses described above, I later bought a Triang-Lionel Famous Inventor Series “Gutenberg Printing Press,” produced in the U.K. by Rovex Scale Models Ltd., in Margate. It came in about 40 parts, mainly plastic, and was quite easy to assemble into a scale model. It stands about 9½ inches high, and the press bed is about 4 × 6¾ inches. I am not quite sure what the real height of a Gutenberg press was, but the illustrations and woodcuts I have seen appear to show the frame being slightly more than the height of a man. So if we assume that an average man would have been about 5'6" in the 15th century, then the model is approximately ⅛ scale.

The underside of the platen has an inserted metal pressure plate and the big vertical hub screw is also metal. It turns in a threaded metal insert that goes into the top main frame cross-piece. The original arms for turning the hub nut were of a rather thin steel rod that bent too easily, so I fashioned a more sturdy replacement out of a length of wire coat hanger, and that does the trick.

The “type forme” is about 3 × 3 inches and uses plastic spacer bars, tightened by a small thumbscrew at the bottom of the forme to hold the type in place. These bars are hollow and slightly tapered top to bottom, so it is important to resist the logical temptation to insert them all the same way up, since if you do, tightening the screw quickly causes them to bow and then explode, spraying the type asunder! The correct technique is to alternate the bars up and down,

which seems to give better stability than if they had been made parallel in the first place.

As far as the type is concerned, that would be the biggest shortcoming of this toy, relegating it to the status of a functioning model rather than a useful toy press. There is only one font, all caps, of a Bodoni-like serif face of about 12-point size (or the equivalent of about 96 points, based on the model’s scale). The type is cast in a relatively hard pliable plastic and came with all the characters cast on a plastic “tree” (as in the style of the old Airfix kits). So once the letters were detached, it was necessary to trim the spurs away very carefully with a razor blade.

The frequency alphabet used to determine the makeup of this tiny font must have been derived from some very obscure language. It is a 4-A font but included seven Ms, five Ws, and just five Es. The type height is about ⅓ inch, but there are no spaces provided, so the ends of lines are stabilized by spare characters laid on their sides (maybe that’s what all the Ms and Ws are for). I also used spare characters as spaces between words. In principle, you could set about 10 to 12 lines of type, but in practice you would quickly run out of letters, at least in English. The hardness of the type plastic is also a drawback, because it requires a fair bit of pressure on the platen to get even a few lines to print reasonably.

There is no mechanism to hold the paper, so I tended to use a bit of adhesive tape to anchor the sheet to the top edge of the forme when they were inserted together on the bed, otherwise the paper would always slip, smudge and require starting again. Theoretically you could add some padding to the platen, but you would have to dismantle the press to do this, and there were no instructions of how to do make-ready in the book provided.

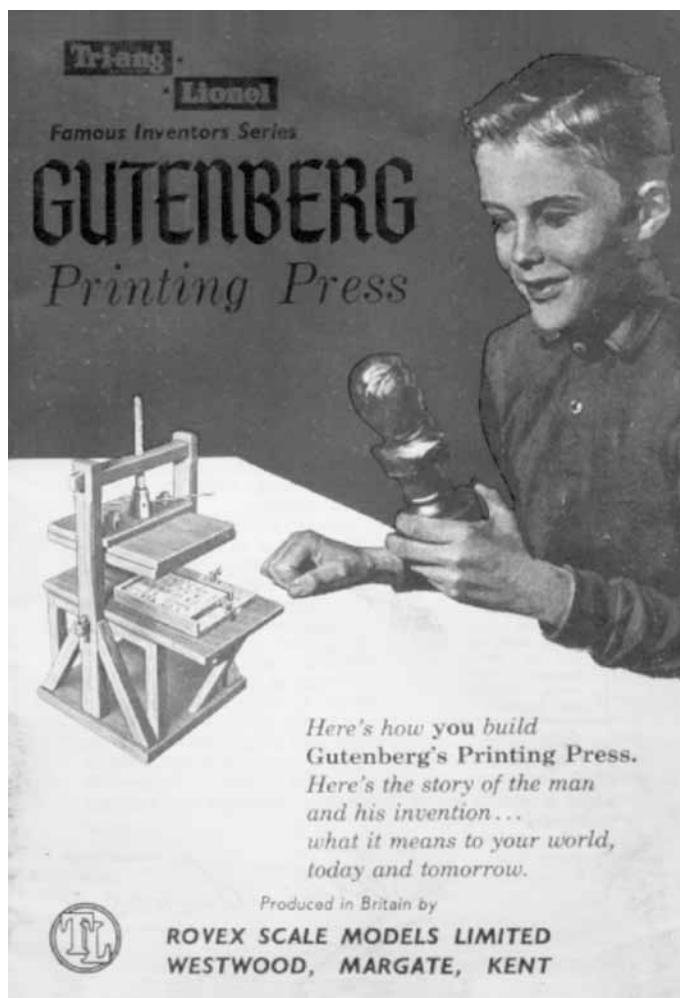
Ink was provided in a small lead tube and came out with a nice gooey consistency, though it could be thinned with water if needed (and also cleaned up with water). Of course, 40 years later the original ink is fossilized, so I used some rubber-based letterpress black to take the impressions shown. The press came with a small wooden roller and a piece of stiff transparent plastic to serve as the inking plate.

Rather more useful than the type was an included “illustration block” (cast in the same hard

plastic) of a facsimile page from a Gutenberg Bible—apparently the preface to the book of Kings. The area of this block filled the forme, and I could never get enough pressure to print the whole area using the plastic press. I would screw it down as tight as I dared, and the whole machine would be creaking and bowing severely. So I later succumbed to the obvious temptation and cheated by mounting the block on a wood bearer to bring it up to the height of letterpress type. I used my Adana 5-3 to take a print, which came out nicely, and made a useful illustration for a Christmas card.

The 24-page instruction book shows a moderately enthusiastic young lad admiring his newly acquired bust of the supposed inventor of our art, and almost a third of the book is given over to a reasonable biography of Gutenberg. A few more pages explain the various terms of typography and show how to mark up a proofed text. Given the amount of type in the kit, that would be quite a short job. Unlike the SMECO presses, this press provided apparently no way to get extra type or other accessories, so I tend to imagine that the majority of these Triang-Lionel presses were assembled, used once or twice only, and then left aside for more adaptable toys.

Overall the Triang-Lionel Gutenberg press should be viewed as a working scale replica to be demonstrated and admired, rather than as a toy designed to engage and fascinate a child for long periods. Nevertheless, it did educate me more about the early history of printing mechanics, and probably sowed the seeds of my more recent interest in Gutenberg biographies. It occurs to me that the same idea could be realized at a similar scale using a real wood frame, which would probably then be able to sustain enough pressure to get a reasonable print, especially if



Gutenberg instruction book.

a softer type material were used. Also, given the ease of making polymer blocks, the user could be provided with some more illustrations with which to add variety to the printed specimens. A valuable mechanical addition would be some sort of working tympan to secure the paper in place during the impression. I wonder if there is a market opening for a 21st-century toy of this sort?

~ Paul Jay lives in Ottawa. He is a member of the British Printing Society, in whose journal previous versions of this article first appeared. He can be reached at majojay@sympatico.ca, in case any readers can recommend ways to cast new rubber tires for his SMECO Star press.