Resurrection of a Reliance

text and photos by Juliet Shen

2 **There are drawbacks to being a designer in the digital age.** The actual process of creating is erased with every click on the *save* button. Down the road you may get to hold in your hands a printed piece containing something you designed, but the immediate fruits of your labor are largely intangible.

The enthusiasm for letterpress printing among designers these days stems at least in part from a rediscovery of the pleasure of working with one's hands to create an object that bears all the indelible traces of its making. It is no coincidence that the rise in popularity of letterpress classes at the School of Visual Concepts (SVC) in Seattle came immediately on the heels of the local dot-com bust in 2002. Web design classes emptied out, and the letterpress classes filled up. This was not due to a belief in the lucrative benefits of a career in letterpress printing; it had something to do with satisfying the soul.

Recently, SVC acquired an inoperative Reliance iron handpress, circa 1895. Some parts of the press were damaged from misuse in its first life, but the main work of giving this press a second life consisted of designing and installing a hinged tympan and frisket frame assembly, a device that would permit printing in registration. Thus the Reliance *proofing* press would be converted to a *printing* press—a higher reincarnation, if you will.

In Seattle we have a rare asset for fixing old letterpresses: retired aircraft engineers whose artistic souls have found fulfillment in the book arts and who know how to make just about anything work. When Carl Montford and Russ Wiecking undertook to renew the Reliance handpress for SVC, I decided to dog their every footstep and learn how things get made in the nonvirtual world.

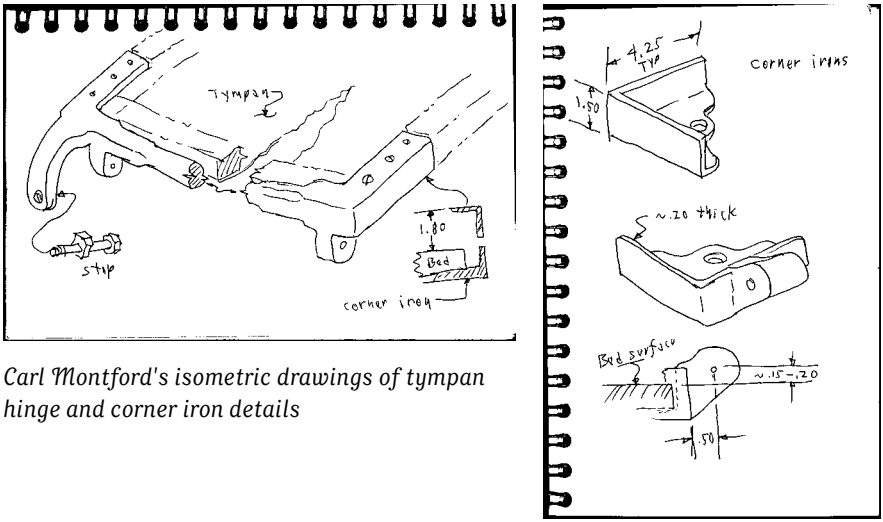
C. Montford

left: the dismantled Reliance proofing press, c. 1895

above: Carl Montford (rear) and Russ Wiecking, who have 67 years as Boeing engineers between them
left: Russ at work on new parts for the press
below: entry to his woodshop

The pursuit. I was born in New York and moved to Seattle as an adult, so I think I have the perspective to state that there is something Northwestern in the spirit of an undertaking like this. People here love the outdoors, and if they can't find the equipment they need to enjoy it, they make it—this is the birthplace of REI stores. Northwesterners also have a strong sense of abode and like to have everything they need right at home. The parts for the SVC Reliance were all fabricated in Russ Wiecking's garage workshop. This spirit leads to a propensity for indulging in what people elsewhere might consider futile pursuits—like weeding gardens, flyfishing, and fixing old letterpresses.

The undertaking. It would take a confirmed optimist and seasoned veteran to see an operative press in a dust-covered, dismantled, 110-year old hulk. But Carl had previously resurrected a Reliance proofing press for his own use. His isometric sketches for that project *(fig. 4)* were the starting point for defining the scope of work on SVC's press. The other source for a design prototype was a larger Washington handpress at The Thorniley Collection of Antique Type, restored in 2005 by Carl and John DeNure, curator. The Washington had an operative tympan frame, so after observing it in operation, Russ was ready to work on the SVC Reliance.



Carl Montford's isometric drawings of tympan hinge and corner iron details

The sum of the parts. This is not a how-to manual. It's the record of making new parts for an antique press that were not furnished by the original manufacturer. Of doing it to tolerances of hundredths of an inch from bits of surplus material employing an acetylene torch, a few saws, a drill press and some clamps—well, quite a few clamps. And of adding a good measure of ingenuity, a lot of patience and an indispensable pride of craft.

This may not interest people who possess these mechanical skills but have more sense than to employ them for this purpose. But it may interest those of us who mostly create weightless things with a keyboard and a mouse—things that disappear when we put our computers to sleep.

I hope you enjoy witnessing the resurrection of a Reliance.

Glossary of components:

- *Corner irons*, as their name implies, bracket the four corners of the press bed, providing the framework to attach a tympan frame, and to lock up printing material on the press bed.
- The *tympan hinge stop* prevents the tympan frame from opening too far by coming to rest against the underside of a corner iron.
- The *tympan hinge* is attached to the corner irons on the end of the press bed. It is u-shaped and as wide as the bed. The wooden tympan frame is secured to the hinge at its corners.
- The *tympan frame* is the size of the press bed and is stretched with paper. On one side it holds the sheet to be impressed. On the opposite side it backs up the packing material that controls depth of impression.
- The *frisket frame* is hinged to the top of the tympan frame and folds down over the press sheet, keeping it in place during printing.
- The *back drawer* is attached to the opposite face of the tympan from the frisket, and locks the packing in place. This part was not in the original proposal, but was taken up later as a design challenge.

corner irons

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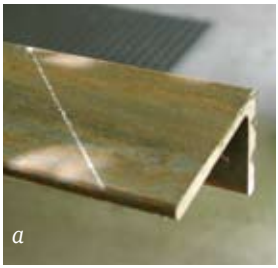
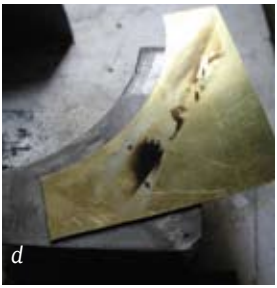
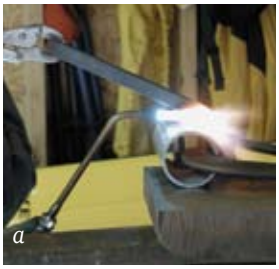


(a) steel angle marked for cutting
(b) cutting with a torch
(c) welding along the mitered seam
(d) brass pattern used for shaping the corner's floor
(e) installing a corner iron on the press bed
(f) rear corner iron with knuckle for tympan hinge pin
(g) forward corner iron notched for the tympan frame



tympan hinge stop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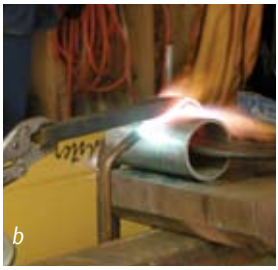
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(a–d) heating and bending 1" solid bar over a section of pipe to achieve the desired curve for the stop
(e) drilling one end for a bolt

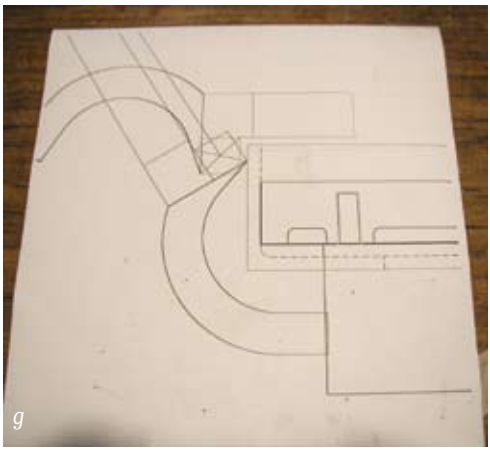

c


d


e


f

(f) finished hinge stop with threaded hole
(g) Russ's diagram of the hinge stop's range of motion on the press
(h) hinge stop on the press with the tympan raised, bolt resting against the underside of the corner iron to prevent further rotation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h

tympan hinge

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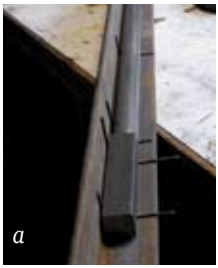
(a) a length of angle makes an improvised welding platform
(b) tacking the round and square bars together
(c) the hinge corner, ground to a bevel before welding
(d) the welded corner, seams chamfered and ground smooth
(e) tapping the hole in the corner piece to receive a threaded bolt that will be the hinge pin
(f) hinge pin being hand crafted from solid bar
(g) hinge pin threaded through the hinge corner



R. Wiecking

(h) detail of the hinge and corner iron, with a nut on the pin to stop lateral movement
(i) the completed hinge

tympan frame

(a) rough-shaping the frame arms on a bandsaw
(b) finished arm (laying athwart the tympan hinge)
(c) shaping one end piece with a plane
(d) assembled frame, without the hinge
(e) hex bolt after being soaked in muriatic acid to remove the zinc plating, then torched in charcoal to blacken it
(f) steel hinge and wood frame joined
(g) area of the press where tapering of the tympan arm is essential for clearance when the platen is lowered


a


b


c


d


e


f


g

frisket frame

10

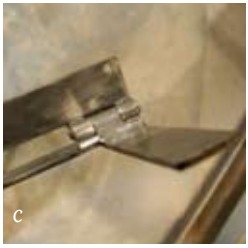
(a–c) common hinges modified to make the frisket hinge
(d) frisket hinge plate attached to the tympan arm; frame extends below to form a stop against the tympan arm
(e) hinge pin, with a cotter pin added to facilitate detaching the frisket from the tympan
(f) the frisket and tympan frames on the press, showing how the stop on the frisket frame limits its rotation
(g) in the first fitting session, the frisket frame stop has trouble clearing the lever arm
(h) the new detail


a

R. Wiecking


b

R. Wiecking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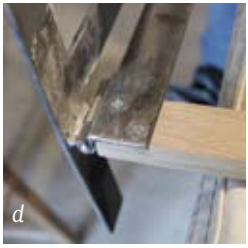
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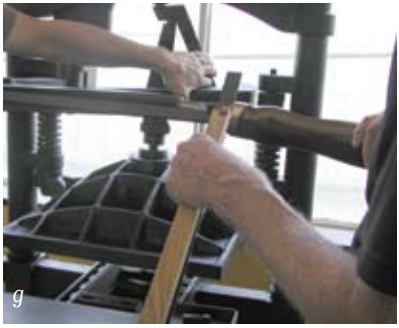
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e

f


h

back drawer

There were no design prototypes for the back drawer, a frame that fits snugly inside the tympan frame. Carl, Russ and the author collaborated on a design that met two criteria: that the packing be both firmly secured and easy to change.
(a) the innovative lock, designed by Russ: a peg on the back drawer frame that fits into the small hollow created by a spur on the frisket hinge
(b) at the other end of the frame (shown after papering), a latch devised by Russ that unlocks with the turn of a screw and slides into an inclined notch on the back drawer frame to accommodate the bulkiness of the packing


a


b


d


e


c

The decision to add a back drawer after the tympan and frisket frames had been made required Russ to lengthen both frames so the back drawer would safely clear the platen.
(c) detail of the splice in the wood frame
(d–e) final clearance at the rear (left) and front of the platen
(f) tympan, frisket and back drawer assemblage after being papered


f

cast and crew

Carl Montford is a wood engraver and proprietor of the Montford Press in Seattle. He teaches engraving, linocut and letterpress printing, and has restored many old presses.
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The *School of Visual Concepts* gives classes in design, advertising and letterpress printing. SVC is now the proud owner of a newly resurrected Reliance handpress.
www.svcseattle.com
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top to bottom: fitting, papering, copying a pattern for the base, and enjoying the finished product

 Printed by Artcraft Printing, with support from the School of Visual Concepts. Typeset in Bullen Regular, Italic with swash, and Bold, the author's type design inspired by early ATF foundry fonts.