

Restoration of a 35-key Limonaire Fair Organ

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In January 2003 I received a 35-key French Limonaire organ for repairs. Thanks to Leonard Grymonprez (Belgium) I was able to restore the organ both mechanically and cosmetically. Mr. Grymonprez had previously sent me many photos of organs of which this style of organ was represented (**Figure 1**). Using the photos I, along with my artist, Alan Fabius were able to restore the organ to factory-like condition.



Figure 1. The 35-key Limonaire as illustrated in a Limonaire catalog reprint.

When I first received this organ it was missing the top, snare and bass drum wings, the front frame and the base legs. The plan was to make new components, which have since been done. New skids were attached to the legs—the organ had been previously damaged by a flood (**Figure 2**). A local pipe organ repair man had patched up the pump by removing it through the bottom of the case, leaving only two pieces of $\frac{3}{4}$ " wood for a bottom.



Figure 2. The front of the organ with new legs and skids.

To remove the pump I cut out the back 12 inches of the case (later gluing new pieces of wood to replace the defects). Now the pump could be removed in the future without taking the organ apart. Several dry wall screws were replaced by round head screws for easier removal. Access holes in the sides of the case (for servicing the pump sticks had been covered so I made new covers, again for easier, future access for greasing (**Figures 3 & 4**).



Figure 3 (left). A “before” photo of the snare side of the organ. The grease holes had no covers; the motor was mounted on the side of the case and there were corks in the snare drum holes (for air supply to the beaters).

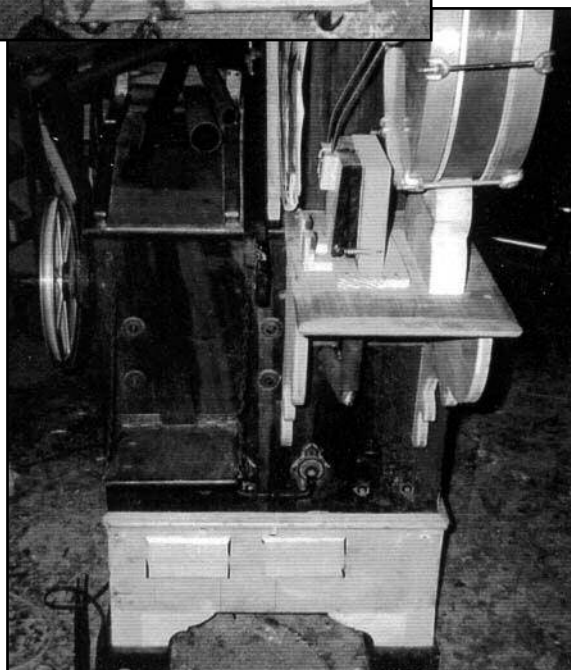


Figure 4 (below). An “after” photo showing the added covers over the access holes to lubricate the pump sticks.

Now to the pump! I removed all the patched pieces of mismatched cloth (and, not leather) and tore the pump down to the bare wood. It was no wonder that the pump would not work as the joint on the flip boards had become unglued and the leather seals on the joints loosened (and they were hard as a rock). The rear spreader woods came off easily but the front cross piece needed to be cut away

The organ's pump had original French news print lining the wood but because of the flood damage, it had to be replaced.

to get it apart. This I replaced with a wider new piece of wood. A new hinge section was made to go on the reservoir board. Also, the spill valve had no crotch to pivot in—I made a v-shaped groove in it and a new, thin piece with a wedge to go into the notch in the spill valve. Two screws will hold the spill valve on tightly and it should function properly.



Figure 5. The leather sections are all ready to be placed back. Cardboard stiffeners and leather retainers have been attached.

The pump has been completely dismantled and cleaned to the bare wood. The pivot hinge pieces are now all glued back where they belong and all rope hinges replaced with new leather applied to the pivot boards (for sealing). The organ's pump had original French news print lining the wood but because of the flood damage, it had to be replaced. Good, coated leather was used for the pumps and reservoir (Figure 5). One-half round pieces 1/4" x 1/4" have been nailed to the edges of the pumps and reservoir (similar to Wurlitzer). This will keep the leather from peeling off the edges.

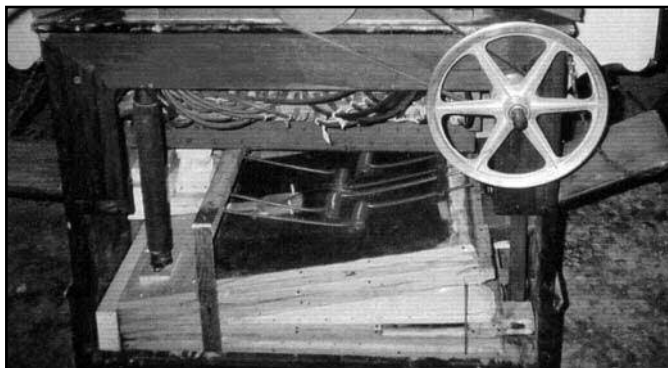


Figure 6. The rebuilt pump has now been installed back into the bottom of the case.

The original pump had a spring-loaded oblong wood piece to press to the underside of the wind chest. A new piece, with a leather face and a leather flexible chute, has been screwed to the bottom of the chest. This is secured to the pump with a new board on the end of the pump and a wedge to the case with two hex screws to hold it down on the right (like Wurlitzer). The 1 1/4" feed tube has been replaced on the new board with new twill tubing. Figure 6 highlights the restored pump in the bottom of the case.

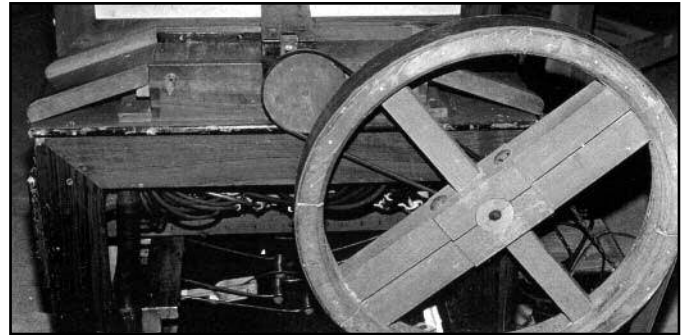


Figure 7. The back of the organ, as it came in for restoration. The organ crankshaft was driven with a thin flat belt (lower right of photograph) to a French 700 rpm motor.

When the organ was received it came with a large flat wood pulley and a thin belt about 2 1/2" wide (Figure 7). The current owner agreed that it should be replaced with a more efficient method. It has been replaced with a ten-inch v-belt pulley on the crankshaft and a three-inch pulley on the motor with a jackshaft to another ten-inch pulley driving another three-inch pulley to finally drive the ten-inch pulley on the crankshaft. This came out correct for the speed of the book music.

All the flap valves in the organ were of single thickness leather and not good enough for the organ to function. I remade them of three thicknesses of leather with a soft side towards the vent hole (Figure 8). They now work!



Figure 8. Shown here are all new triple-thick flap valves as well as valves for the "flip" boards (which are under spring tension).

When checking the organ at the beginning of this restoration I attached a vacuum cleaner in the “blow mode” and with the new motor drive, the organ did play the books, proving that there were no ciphers in the chest and that the pneumatics worked. They apparently did not get wet.

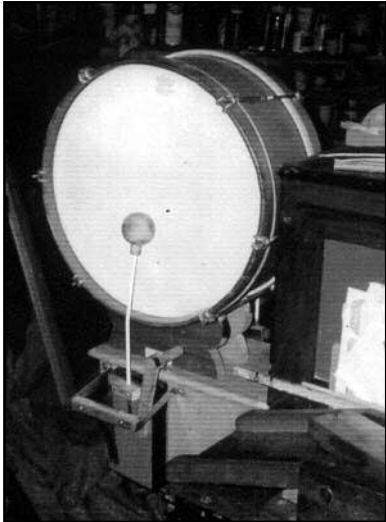


Figure 9. The remanufactured bass drum, as seen from the rear of the case.

The front wood pieces, top, drum fronts and base and legs were painted an off yellow. Walnut gel stain was used for organ sides as well as the new access cover holes. The drum shelf tops and backs, and the back of the organ were stained walnut and the front edge and side edges were trimmed with gold leaf paint. The bass drum and shelf is seen in **Figure 9**. The rear edges of the organ were painted black as it was originally. Repainting the floral scenes as well as adding “Orchestrophone” and “Medalli D'or Paris 1900” was



Figure 10. The completed Limonaire, Style No. 201, as it left the shop

accomplished by artist, Alan Fabius. The end result of our efforts is noted in **Figure 10**.

The original books were also water damaged and needed to be replaced. New music was ordered from le Ludion in France and the organ plays satisfactory with these.

Bill Kromer and his wife, Ruth, live in Wayne, Pennsylvania. Bill has spent most of his life in industrial electronics and part time, doing Christian work. His first mechanical musical instrument was an AMPICO spinet electric player piano, which was later traded for a deKleist Style 18 band organ. Now retired, he repairs band organs and the like.

Harold Freiheit—In Memoriam

COAA member Harold Freiheit passed away June 20, 2004 in Columbus, Ohio, at the age of 75. My late husband, Frank Rider and I first met Harold and Mary Lou in 1969 at a Musical Box Society International meeting in Dearborn, Michigan.

Harold and Frank had much in common—they both liked antiques and “gismos,” and learned from each other. The harder to identify the antique, the better they liked it.

He was a popular sight in Columbus and Dublin, Ohio parades. The crowds were delighted to see and hear his old barrel organ mounted on a truck bed. Often, at rallies, he would show and play a “hackbreck” organ (“break your back” in German). The tall narrow organ was strapped to his back and carried around.

Mary Lou, their sons Rob, David, Chris and Alan and their families will all miss Harold. COAA and MBSI meetings and rallies will miss his “gismos” as well as Harold’s smiling face

Hope Rider

