A Folding Organ Cart

Jim Partrick

In October of 2007 my wife and I attended the COAA rally in Franklin, Pennsylvania. The day before the rally, we were treated to a demonstration of how our president, David Wasson, composes and makes music rolls for *Trudy* at his home in Erie, PA. We, as well as many others in attendance, found his presentation extremely interesting, informative and enjoyable. After a luncheon, the group went over to Organ Supply Company (OSC) for a factory tour. I have been dealing with them for a while and found them very accommodating. At the end of the tour they showed us a couple of 20-note organs that they had made, and were offering for sale. My wife and I were impressed with the looks and sound of the little organ and ended up purchasing one on the spot.

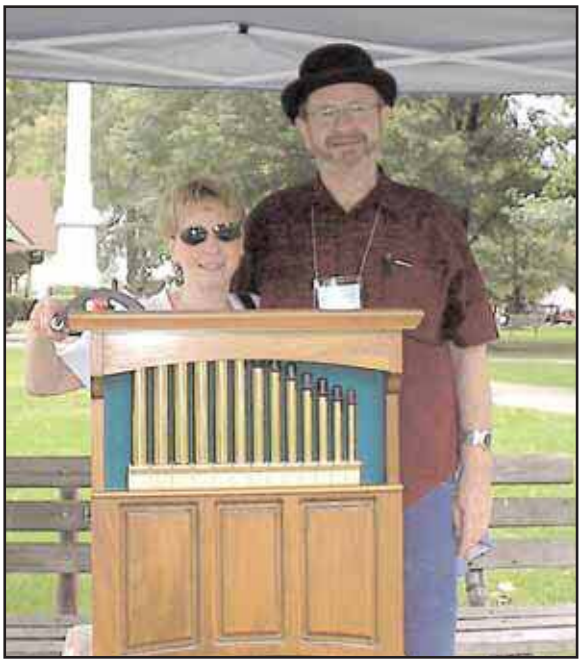

Figure 1. Jim and Donna Partrick with their 20-note OSC hand organ. In this photo, the organ was supported by it's shipping box.

We went back to our motel in Franklin after loading the organ into the car. We were as excited as a couple of kids with our new toy. The next morning we decided to look for something to put the organ on, and went to the local K-mart. We were unable to find a table or anything else to put the organ on, but we did get an awning there. We hurried back to the park and rally site; set up the awning; and brought out the organ. We ended up turning the box (that the organ came in) upside down put the organ on it (**Figure 1**). We played our hearts out during the rally.

Since we had no table or cart on which to place the organ, we took note of the variety of tables and carts on which other units were displayed on. One cart in particular caught our interest since it was able to fold up for storage or transporting. It was owned by Paul Senger, who allowed us to take photos of it for future reference. When we got home, we looked at all the carts in the back issues of ***Carousel Organ*** to see if there was one available, and to expand our view of more carts. We kept coming back to that one that folded up. It would fit in the trunk. We couldn't find another one like it and decided to build our own. We wanted an easy build that would look nice. Early in 2007 we took a weekend and made one.

Now comes the AMICA rally in Grove, Oklahoma. We encountered Ron Bopp and Angelo Rulli who pushed me to write an article on how I designed and built our cart. It is easy to change the dimensions to customize the following information to fit your needs. I am over six feet tall and my wife is about a foot shorter, so there is a difference in what is comfortable for us to both crank. We set the organ on a table and adjusted it until it was comfortable enough for both of us to operate. Next we measured the distance from the bottom of the organ to the floor and subtracted 2½" which was the height we wanted it off the ground. This gave us a height for our organ of 18¾". The removable top is made of ¾" boards and subtracting this amount gave us the final height of the side of 18" tall.

After a little discussion we decided we wanted our cart to be 28½" long. I had two boards that were 1" X 6" X 8' — I split them to have four boards that were 1" X 3" X 8'. I cut four pieces 18" and four pieces 28½" long and built the two sides. So far, so good. To join the two sides we needed the two boards for each end. We wanted our unit to be 18" wide. To come out to this end, we had to subtract the width of both sides from the width. Adding both sides (¾") together equaled 1½" to be subtracted from the 18" we wanted and cut four boards 16½" long. I cut four boards to fit the width needed and then cut all four boards in half to accommodate the unit folding. It takes 12 hinges total for the folding parts. I used 2" hinges that were brass colored. I reconnected the four end boards that were cut in half with four of the hinges, with the barrel of the hinge out.

Once the sides that are glued are dry, it is time to install the reinforcements (**Figure 2**). I took four pieces of wood that were about 4" long and I cut them short of the side rails by about 1/8". This made four pieces 4" wide by about 2 5/8". I would suggest closer to 3/8" be cut off so the bottom shelf that will rest on these blocks will be slightly lower. Glue these blocks on the inside lower

Figure 2. The completed side.

ends. These will also give the wheel axles more support. Once these were glued in, I made two rails to go between these blocks to give the shelf more support. These rails were ¾" wide and about ½" tall. The width matched the end blocks but the height can be variable. I figured mine didn't have to be that tall to support the shelf and the smaller rails would be lighter.

When the glue is dried, it was time to assemble the front and back. The top ends are installed with the hinges in the inside corners of the front boards. This allows the fold of these pieces. The lower pieces are installed slightly above the the support blocks. It will not be as floppy after the next step.

Figure 3. A photo of the completed lower shelf.

Now I made the lower shelf (**Figure 3**). I glued up some boards for the bottom and cut it to fit slightly loose. I also had to notch the corners slightly (**Figure 4**) so the board would clear the hinges when installing and removing this board. When the shelf is installed it should be resting on the side support blocks and rails, thus pushing the sides apart. It will be resting inside the front and back hinged pieces to keep them from collapsing as well.

Figure 4. Notched corners in the bottom board to accommodate the hinges.

The next item is the top (**Figure 5**). I made it like I did the bottom but just a little larger than the outside measurements of the box. On the bottom side of the top I made marks to guide me in installing a rail that would fit into the opening of the top to keep the top part from collapsing and the top from sliding around. This locks the top part of the cart.

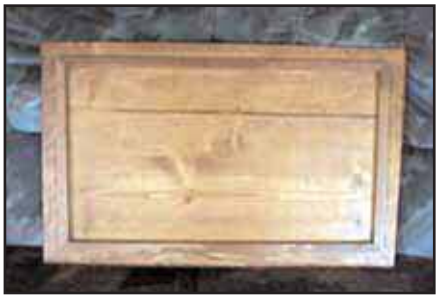

Figure 5. Top as seen when completed.

The handles are a matter of taste (**Figure 6**). I had a piece of maple that was big enough to make my handles out of one piece of wood. I obtained some ¼" 20-thread screws that were long enough to go 3/8" in the handle (exposed in) through the side and have about ¼" protruding inside. I found some threaded handles to attach these to the sides with at the local hardware store. Make sure you put the screws low enough that the handles you use on the inside do not interfere with the top when it is installed.

Figure 6. One piece handles made from maple.

I bought some inexpensive wheels and drilled out for the axles making sure the wheels protruded below the frame the 2½" that was left for them at the beginning of the fabrication of the sides.

We decided to stain our unit and since our organ is a medium brown, we decided on a lighter stain for the cart. After the stain dried we put three coats of water based polyurethane finish over it. So far, I am quite happy how it turned out and it works quite well (**Figures 7 & 8**). I also made wheel chocks to keep the unit from rolling when it is set up. To do this I just took a piece of wood and laid it under the cart next to the wheels and marked where the wheels set up against it. Cut that part out and it will lay between the front and back wheels keeping them in place on an incline.

We have been looking around at Salvation Army, Good Will and at yard sales for other wheels and when we find and install them our cart will be complete.

If you have any questions, call me at (269) 429-1306 or you can E-mail me at jpartrick@juno.com and I will try to answer your questions and help you as much as possible.

Good luck with yours and have fun with it. And, do not get between Ron Bopp and Angelo Rulli under any circumstance, as they might insist on you writing an article!

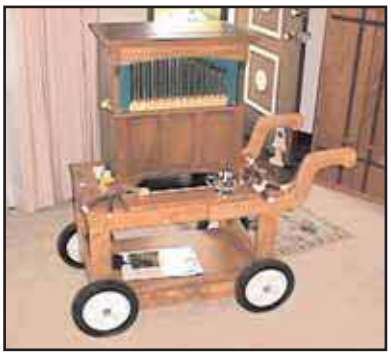

Figure 7 (left). The finished card folded and ready for travel.

Figure 8 (above). The completed cart in use holding a 20-note OSC hand organ.

My love for organ music began in my early teen years when I helped a neighbor restore a small theater organ. In 1997 we attended a rally in Berrien Springs, MI and I was taken with the carousel organs. We purchased some plans (from Kim Pontius); joined the COAA shortly thereafter; and the organ from those plans was completed after a few delays.