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Restoration of Concert-Mandolinen-Zither Victoria



Completed by Ron Cook

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For Shari Delgadillo

Background

Zithers, both chorded and fretted, were very common in Eastern Europe from the mid 1800s to the 1900s. Many that survive today were made in Germany and Austria, but many more were manufactured in the United States and sold through catalogs up into the 1950s.

There is very little information on this “Concert-Mandolinen-Zither Victoria”. What information I could find was on German auction web sites, which makes me believe this is a German-made instrument. However, no place or date of manufacture was discussed on those web sites, and the label only shows the name of the instrument. No date, city, or country of origin is listed, and there were no maker’s marks penciled on the inside.

The strings were not brittle, and I was able to clean and save all of them. Usually, on zithers from the late 1800s and early 1900s, the strings are so heavily corroded or rusted that they often break when removed. The strings on this zither were very flexible. The tuning pins are modern, standard zither pins with square heads, rather than rectangular heads, as seen in older zithers. They are threaded in reverse and tighten counter-clockwise, which is common on German zithers.

The wood on the top and back is spruce and nearly 1/4 inch thick, very thick for a zither. Standard zithers are usually 1/8 inch thick. Both top and back are made from three pieces of wood, joined side to side lengthwise. They are not solid wood, as in most zithers. The frame is maple. There is no veneer on the top, as is the case with many German zithers, but the entire instrument is painted glossy black. The top has several intricate decals. This is a very large and heavy zither with 74 strings. There are 6 chords of 4 strings each and 25 doubled melody strings. This many strings can put a lot of strain on the body of the zither, so that may be one of the reasons for such a thick top and back.

With so little information on this brand and model of chord zither, and how long they were manufactured (and by whom), I can’t be certain of the date of manufacture. Although a few have shown up on auction web sites that claim the instrument is from the late 1800s, I feel this one could be from 1900-1910 time period, but it’s also possible, from the wood, hardware types and condition, that it could be from the 1920s. Without any interior markings, I can’t be sure.

Valuation

Chord zithers from several U.S. companies were made in the hundreds of thousands and were sold door-to-door and through Sears Roebuck and Montgomery Ward's catalogs from the late 1800s up to the 1950s. Because so many have survived, prices are relatively low compared to other stringed instruments. Occasionally, very well made and ornately decorated zithers come up for sale and fetch slightly higher prices. It's the more recent popularity of online auctions that has kept prices low for most of these instruments. I've seen prices range from as low as \$10 to over \$1000, depending on condition and rarity of a particular model.

But, for many people, the value of an instrument is not monetary, but sentimental. To be able to have a restored piece of family history on display, to know its use, its background, and who played it, and to be able to pass it down to future generations, is priceless.

Day 1: Assessment



On the first day, I always look over an instrument to see how much work is needed to repair or restore it. I was happy to see as I took this chord zither out of the shipping box that all but a few glue joints were stable and that the frame was not racked. I would not have to dismantle the instrument completely.

Both the top and back had shrinkage cracks that ran straight along where the woods were glued together and joined. The woods are approximately 1/4 inch thick. The width of this zither is around 16 inches, similar to a large body guitar, so a two or three piece top and back is a common practice.

The painted surfaces on the side were chipped off in several places, and some of the edges were chipped and slightly dented.

The only glue joints that seemed ready to fail were on each side of the hitch pin (tail pin) block. Fortunately, even with so many strings, the frame did not warp. The hitch pin cover had one small crack, but was not broken as so many have been on other zithers I've repaired.

Day 2: Remove Parts & Strings



On the second day, I removed the “harp” post, which was not glued but screwed in place, and the hitch pin cover. I took off the “feet”, which are basically upholstery tacks, a common practice on chord zithers.

A little later in the day I began to remove the strings and tuning pins.

Day 3: Removing and Labeling Strings & Interior Inspection



The strings were in pretty good shape. None of them were brittle from corrosion and none of them broke. Only one string was missing, and that was the very first chord string.

To be able to reinstall the strings in the right order, I labeled each of them. For the six chord sets, I combined four strings from each chord and taped them together and labeled them. For the doubled melody strings, I grouped each pair and taped and labeled them.

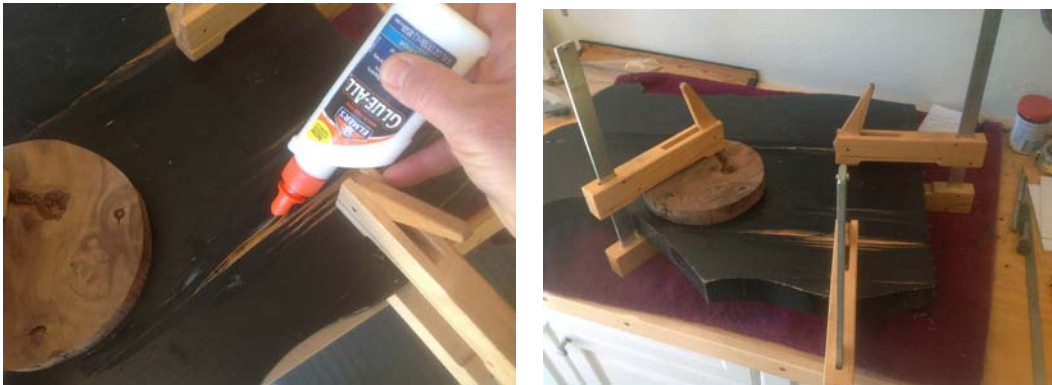
After all the strings were off, I was able to do an interior inspection with a flash light and mirror. All interior bracing looked fine with no broken glue joints. I did not find any markings that could have given me a clue as to the maker or time of manufacture. The label had only the name of the instrument and no other information.

Day 4: Scraping Back Joint



The shrinkage of the back pieces left a little ridge on the joint where one side shrank in thickness as well as in width. I used a cabinet scraper to even it out.

Day 5: Stabilizing the Back Crack



The next day I began stabilizing the back cracks by forcing glue into the joints and clamping them shut as much as possible. The thick glue helped partially fill the remaining gap.

Day 6: Patching Back & Cleaning Top



With the back stabilized, I used a special ebony paste filler to completely close up the cracks.

After the filler dried, I turned the zither over and began cleaning the top.

Day 7: Top Crack Stabilizing and Touch Up



The top crack was going to be a challenge since it went the length of the top through the pretty decorative decals. I had to be careful not to get glue or filler on any of the decals. To do so would have ruined parts of them.

I carefully forced glue again into the crack between the decals. Where the decals are, I used a sharp round toothpick to daub glue in the crack without touching the decals.

Later in the day after the glue had set for several hours, I used some ebony filler along portions of the crack.

Still later, I took a fine artist brush and touched up along the crack with a glossy black oil paint.

Day 8: Decal Touch Up



Where the crack went through the decals, I used both a gold pen and gold leaf paint to try to continue to fill and touch up the decals.

I have created replacement decals and partial decals for other zithers and autoharps, which is a very laborious and time consuming computer-related process. The decals on this zither were in such wonderful shape, I figured touching up the single crack would be much more efficient and keep the original look.

Day 9: Stabilize and Patch Sides



On Day 9, I forced glue into the slight openings of the glue joints on both sides of the pin block.

The type of glue I used here is a very thin viscosity instant glue that is specially formulated for woods. It is so thin that the glue wicks into the joint and completely stabilizes it.

Because it's instant glue, I was able to start patching the large chips on the sides.

Days 10 through 12: Painting the Sides



After patching the sides, I spent the next three days painting the sides. I put two coats of oil-based glossy black on the patch areas. I was only able to paint one coat a day, since it took over 8 hours to dry completely.

Day 13: Polishing, Touch Up, & Hardware Cleaning



With the top patched and touched up, I did a final cleaning and started applying a couple of coats of paste wax to shine it up. With the cleaning and waxing, the beauty of the decals came through nicely.

Also on this day I cleaned and touched up the hitch pin cover. Previously, I forced a little instant glue into the tiny crack it had. The surface was in good shape and didn't need a coat of paint. I put on an even coat of shoe polish and gave it a nice polish.

Today I also started the hardware cleaning. The two metal bridge inserts were pretty corroded, but a good rubbing with 0000 (extra fine) steel wool, brought them back to looking like new.

Days 14 & 15: Cleaning Tuning Pins



For the next two days I cleaned the 74 tuning pins. This is a long process that wears out my wrists after around a half hour of cleaning, so I had to take several breaks.

I use a fine flap sanding attachment on my electric rotary carving tool to remove all the rust.

Day 16: Cleaning and Installing Post & Final Polishing



The zither was getting close to being done. Today I cleaned off and touched up the “harp” post and reinstalled it.

I also gave the zither a final polish before reinstalling the tuning pins and strings.

Days 17 and 18: Installing Tuning Pins



Again, with 74 tuning pins, it took me two days to reinstall them.

Once installed, I turned the zither over and reinstalled the “feet”.

Day 19: Beginning to String Up



On this day I began to string up the zither. I had fewer than ten strings in place when I found one of the tuning pins was too loose and kept slipping when I tried to tighten the string. This is a common occurrence in zithers, caused by shrinkage and wear.

To make the pins fit tighter, I pulled the pin back out and poured some “Swel-Lock” into the hole. Swel-Lock is a specialty liquid that actually swells wood. It is usually used by furniture restorers to make chair rungs fit better. I’ve found that this works great for making tuning pins fit tightly.

Day 20: More Stringing, More Loose Pins



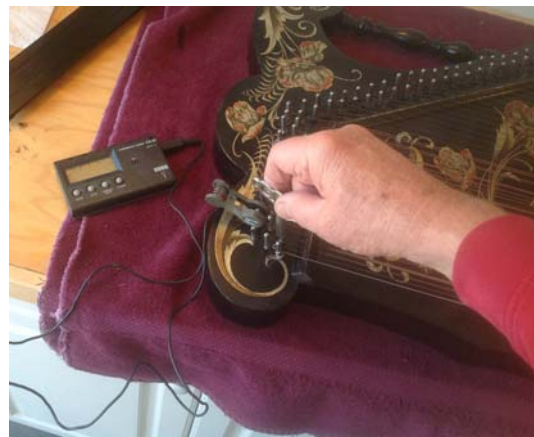
On the next day, I had more loose tuning pin problems. Again, I had to remove the pins and pour in more Swel-Lock.

Day 21: More Stringing, Still More Loose Pins



Today I was able to get all the double melody strings installed and two of the chords when I again had loose tuning pins. More Swel-Lock, and more waiting for the wood to expand.

Day 22: Finish Stringing & Begin Tuning



On this day I was able to finish stringing the zither. I used my digital calipers and figured out what gauge string I need to get to replace the missing first string. I had the correct gauge in stock and was able to finish the stringing and replace the hitch pin cover.

I hooked up my digital tuner and spent the next few hours slowly bringing them up to pitch. Having been off the zither for a while, the strings will again need to stretch out a little and go slightly out of tune. They should stay in tune quite well when tuned up again.

Day 23: Completion



After checking the tuning once more, the zither was done.

Like many zithers from this era, the tone is unique and very beautiful. The wonderful sound is a perfect complement to the beauty of the instrument, with its ornate decals and graceful shape. As beautiful as this instrument is, I hope I can find more information and examples of this brand of zither so I can get a better idea of its age and who manufactured it.

With careful playing and good care, this Concert-Mandolinen-Zither Victoria should last another 100 years.
