Ron Cook Studios

147 Sacramento Avenue - Santa Cruz, CA - 95060 - (831) 425-4933 - www.roncookstudios.com - ron@roncookstudios.com

Restoration of 1903-1917 August Schulz Concert Zither

Completed by Ron Cook

July 2021

For Kathy Stoltz

Background

This fine zither was crafted in Nuremberg, Germany by August Schulz. What I could find from my research was that the workshop was in operation from 1902 to 1917. Operations probably ceased because of World War I.

There were actually more August Schulz guitars made than zithers. His earliest guitars were small parlor guitars (on the left in photo). The design for the other two guitars came a few years later. This unique and modern looking design seemed well liked and several of these guitars are still around and have shown up on auction sites. They were probably fairly loud and designed for playing in dance bands or orchestras.

August Schulz Guitars

August Schulz also made lutes. The following photos are from an auction web site.

August Schulz Lute

While researching, I found on auction sites a few more Schulz harp concert zithers, each with six fingerboard strings like Kathy's zither. Schulz Standard concert zithers, like in the following photo were also manufactured, but not in large numbers. This one has 32 strings including the standard five-string set of fingerboard strings.

August Schulz Entry-Level Concert Zither

The following label was the typical label in all of August Schulz's stringed instruments. The translation, from top to bottom, is as follows: Award winning Stuttgart 1906, August Schulz, Art workshop for Instrument making, Nurnberg, Finest Specialty Business, for Guitars, Lutes, Zithers, and Strings.

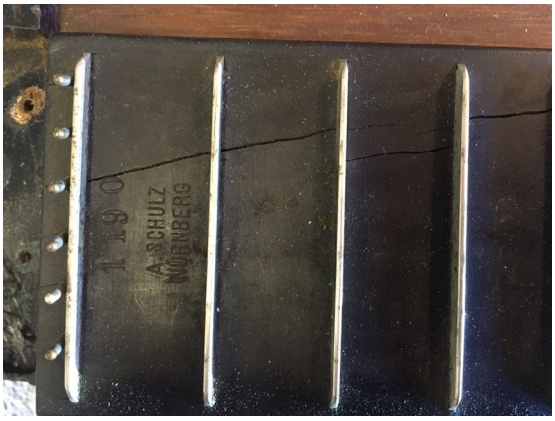
Yes, it did seem August Schulz must have supplied strings for sale and probably used them for his own instruments.

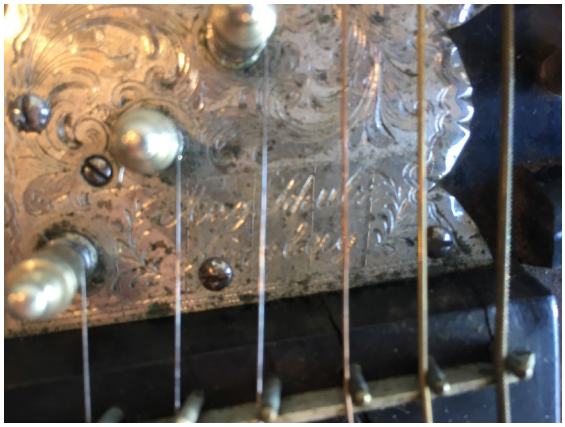
Valuation

There are quite a few antique zithers tucked away in attics and closets around the world and some occasionally show up at auction and music dealer websites. Prices run from very cheap, under $50 for those in poor condition, to over $1000 for ornately decorated instruments in excellent condition.

Valuation is difficult since prices vary so much. Kathy's instrument is considered a harp zither, which is larger than a standard concert zither, and has several more strings than a concert zither. A regular concert zither usually has 32 strings that include 3 contrabass strings. This one has 38 strings including 9 contrabass strings. This is one of the fancier, more beautiful, and more expensive of the early Schulz zithers, and, as such, may be one of the more valuable.

Day 1: Assessment

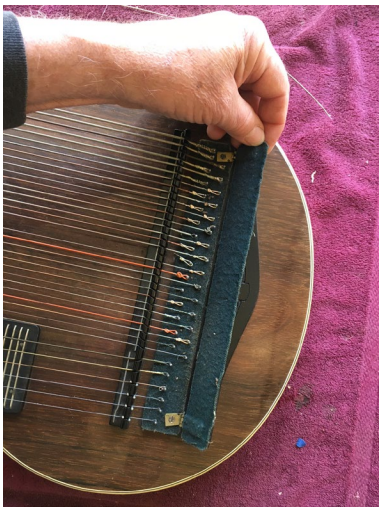




On the first day, I always look over an instrument to see how much work is needed to repair or restore it. When I first unpacked this zither, it looked to be in good condition. The ebony fingerboard showed little wear from being played.

Most of the strings were in good shape. The fingerboard strings were the most brittle, and the first bass string was missing. The main problem was the cracks in the fingerboard. These are caused by wood shrinkage, probably due to the wood not being dried enough when installed during manufacture. As the wood dried more, it cracked.

Day 2: Unstringing



On Day 2 I removed the strings and explored the zither inside and out for any additional problems that might show themselves. Fortunately, the glue joints looked solid, and all the bracing looked intact. I used an inspection mirror to look around inside and could see so additional problems.

Another problem I noticed when removing the fingerboard strings was that the machine gears were very tight. They were very hard to turn by hand. I had to use a guitar string winder to loosen the strings enough to slip the strings off the posts.

Day 3: Removing Tuning Gears

On this day I removed the machine tuning gear plate. I hadn't noticed right away, but this Schultz harp zither had an extra fingerboard string. There are six strings instead of the normal five. I did some research and did not find any other concert zithers with six strings, except for other identical August Schultz Harp Zithers. Also, no string supplier carries fingerboard strings for a six-string zither. Standard Schultz concert zithers have five strings on the fingerboard.

The tuning pins didn't need removing. They did not have any corrosion, so I decided to leave them in place. I would buff and clean the dust out from between them later.

Days 4-6: Fingerboard Patching

For three days I worked on patching the fingerboard cracks. I first wicked a little bit of a thin instant glue into the crack, then, when it dried, I used a small flat toothpick to apply an ebony filler.

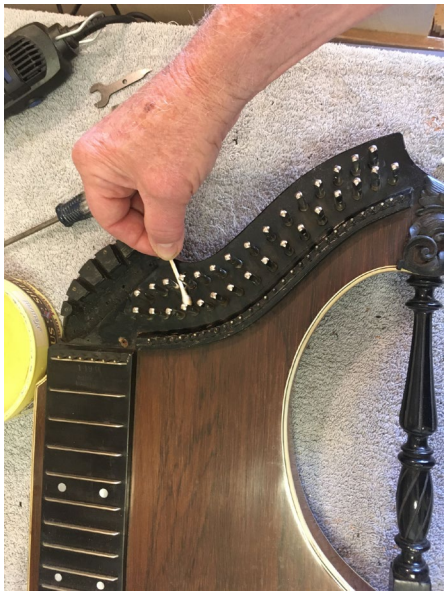
When that dried, I used a black shoe polish to wax all the frets. I applied it and polished the frets with cotton swabs.

Day 7: Polishing

On this day I cleaned and polished the top, back, and sides of this zither.

It should be noted that the lovely woods are actually veneers over spruce. This is typical of nearly all concert zithers manufactured in Germany and Austria as well as in America (Schwartzer zithers of Washington, Missouri). European zithers often had rosewood veneer on the top, American ones sometimes had rosewood, but often had Eastern black walnut veneer.

Day 8: Cleaning Tuning Pins

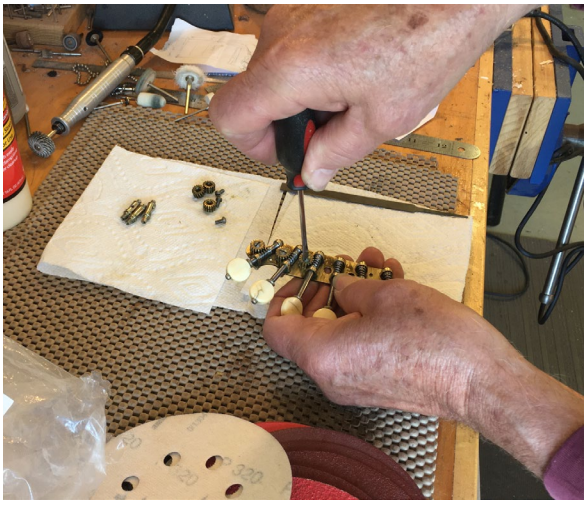


The tuning pins were in nice condition. I did use one of my rotary carving tools with a buffing wheel attached to give the tuning pins a quick polish, but the areas around all the pins were dusty. I used more cotton swabs to clean the areas.

Day 9: Cleaning and Polishing Machine Cover

The gear plate did have a little corrosion. After removing the machine gear mechanism from the gear plate, I used metal polish to clean the top and inside of it. Then I used regular paste wax for added protection.

Days 10-11: Fixing Gears



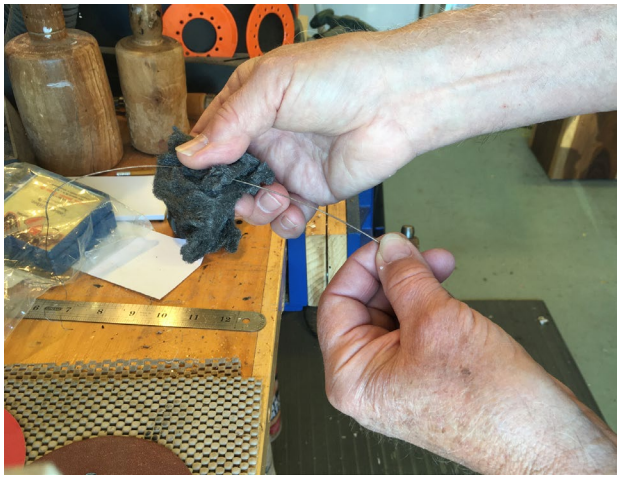
It took two days to repair the gears. When I removed the machine gears from the gear plate, I noticed how worn the gear threads were. They were also a little encrusted with what I think was original lubricant. I took the gears completely apart and took a thin file to clean and refile the gears recesses. I also cleaned the corrosion off the gear plate. Before reassembling, I shot a little WD40 into the areas where the gears attach.

Once I reassembled the gears, everything turned much more easily.

Day 12: Reinstalling Gear Plate

Now that the gears worked much better, I reattached them to the gear plate and installed it to the zither.

Days 13-15: Stringing



Stringing always takes a little time. I installed new strings for the keyboard and had to use an extra string for the unusual sixth string. I used the same gauge string as the fifth.

The only other changed strings were the three bass strings. The first bass string (#13) was missing. The second (#14) broke when I removed it. The seventh bass string (#19) turned out to have been trimmed too short, probably sometime in the last century, and would not hold.

All of the melody strings, the remaining bass strings, and the contrabass were in very good condition, so I didn't put new strings on. I used very fine steel wool to wipe and clean the strings as I was stringing up the zither.

There were a couple of tuning pins that were loose and kept slipping when the strings were tightened. I removed the pins then put a thin flat toothpick in the holes and reinstalled the pins. The toothpick made for a tight tuning pin that held the string quite well.

Days 13-15: Stringing (Continued)

On the third day of stringing, I was finally done. The last strings I installed were the contrabass strings.

One thing to note is the length of the strings. Harp concert zithers have strings that can run from ¼” to nearly 1” longer than standard concert zithers, such as the August Schulz entry-level concert zither in the Background section of this repair log.

Day 16: Completion

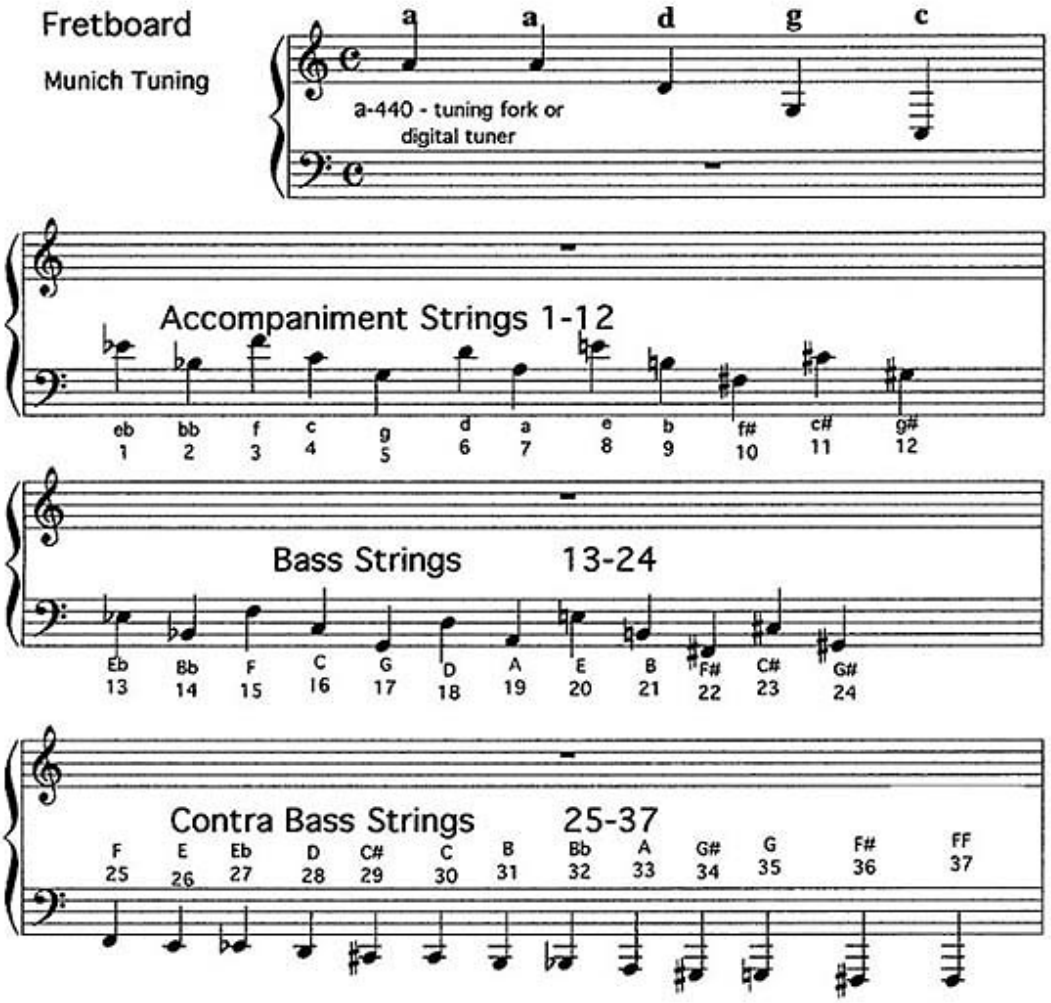
On the last day I partially tuned the zither. The new strings on the fingerboard and the three bass strings will stretch for a little while. They will have to be tuned two or three more times before they settle in.

I always enjoy the challenge of restoring or repairing zithers. Every instrument is different, and it requires quite a bit of thought and research to complete the task. This August Schulz zither is special because there weren't that many made. As I mentioned in the introduction, the Schultz workshop was known more for their guitars and lutes.

I find it very satisfying to be able to keep antique and family heirloom musical instruments in working order for future generations to enjoy.

Concert Zither String Diagram
Munich Tuning

There are two zither stringing formats in use today: Munich and Vienna. Munich is the most commonly used because it incorporates every note in the chromatic scale encompassed by the scope of the instrument. The stringing pattern on the fretboard is like the violin family, a fifth apart. The open strings are in the circle of fifths, broken between Eb and Ab and laid flat on the zither, similar to a accordion layout.



In addition to the basic 29 fretboard, accompaniment and bass strings, zithers may have 2, 3, 5, 7, 9 or 13 contra bass strings - the full harp zither has 42 strings (5 fretboard and 37 open strings). In some early versions, and on perfecta zithers, the contra basses were arranged in the same circle of fifths as the accompaniment and bass strings. Munich tuning was often expressed in treble clef (violin key, or similar to guitar clef) but today is mostly written in bass clef.