



Restoration of Regal Archtop Guitar

Performed by Ron Cook

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For Michele O'Brien of Salinas, California

Background

The Regal name has been around since around 1896, but since 1900, when the original owner, Emil Wulschner, died, it has been owned by many companies, including Lyon & Healy and Harmony. Regal is best known for distributing Dobro guitars in the 1930's. (John Dopyera and his two brothers started the National Resophonic Company in the '20's. John split later and created the Dobro name and instruments, marketed by Regal.) The f-hole (Jazz) acoustic guitar was developed by Gibson in the '30's. No historical references note the actual date Regal started building f-hole acoustics, but it was between 1930 and 1940. They were built up into the 1960's by the Harmony Company. Regals are still made, but only resonator guitars--and they're now built in Korea and distributed by Saga Musical Instruments of San Francisco.

John Dopyera and his Dobro Company also built electric guitars, f-hole and resonator, since 1933, for his own company and for Regal. It's possible Dobro built this particular Regal archtop since there are no serial marks or internal labels, which Dopyera stopped inserting around 1938 after he acquired all rights to the National Guitar Company (his brother's company). I used a flexible mirror and light to check the interior for any problems. I found none internally. I also didn't find any labels, or penciled or stamped marks.

Valuation

This instrument is hard to set a value on since very few Regal archtop guitars have come on the market, and those were post-war instruments (1945 to 1960). Also, there is no demand from collectors for Regal guitars that are not resonator guitars. Regal archtops are not yet collectable. Two instruments I found on the internet were Harmony-built Regals from the 1950's and were priced in the \$300-\$350 range. Another from the 1940's, probably 1945-49, since Regal did not make guitars during the war years, was for sale for only \$150. None of these instruments had descriptions of condition. Pre-war Regal archtops, depending on condition, should demand higher prices, but, like I mentioned, are not yet collectable. My estimate is that this repaired Regal archtop, in today's market, is worth \$250 to \$300. Another reason for the low estimate, besides not being a collectable guitar, is that at one time this guitar was refinished. The head used to have a black lacquer top, which was painted over (brushed, not sprayed) with a slightly reddish tinted burnt sienna. The guitar body was once honey-colored with a brownish sunburst finish. The repainted body "simulated" a reddish sunburst, with a slightly amber varnish over it. Because of the age of the guitar and amount of use it's been subject to, this "refinishing" must have taken place before the head was broken--probably in the 1950s or 1960s.

Day 1: Assessment & Inventory



Michele O'Brien found me through an internet search. Her fiance's Regal archtop was in bad shape, with a broken and crudely mended head, missing and broken binding pieces, and all hardware missing, except for the tailpiece. It is a family instrument and Michele's fiance wants to be able to play it again.

This was a heavily played instrument, which is evident from the worn and scalloped ebony fingerboard. Because the pickguard has been missing for some time, there is a deep worn area resulting from continuous scraping of the top with a pick. It is worn through the finish and into the wood exposing approximately 8 to 10 square inches of wood grain. The back has about the same size worn area, probably the result of belt buckles.

Because nearly everything was missing, I ordered pickguard material, a pickguard bracket, an adjustable bridge, tuning gears, new acorn nuts for the tailpiece, and strings.

Day 2: Repairing the Head 1



The head was the hardest part of the repair, due to the break having been previously repaired with a kind of all-purpose or airplane glue. With a little heat and judicious prying, it came off fairly easily. In fact it came off so quickly, I was sure that if the guitar had been strung up with heavy gauge strings before it was repaired, the head would have snapped off anyway.

To begin the head repair, I started by drilling the neck and head to receive a hardwood dowel to help bind the joint (upper right picture). I then glued it with Titebond, slipped the pieces together over the dowel, and clamped it overnight (lower picture).

Day 3: Repairing the Head 2



To add more strength, I slotted the back of the head and added a thin piece of maple. Again, I clamped it overnight.

Day 4: Repairing the Head 3



Since the head did not have a lamination on its face, like many guitars have, that helps strengthen it, I wanted to slot the top like I did the back of the head to put a hardwood strengthening piece over the break. This, too, was glued and clamped overnight.

Day 5: Repairing the Head 4



The head had been “bashed” around a bit, resulting in the edges being scraped and rounded over quite a bit. (More evidence of having been played a lot?)

One edge by the break had a small piece missing, which left a gap when I glued the head back together. To fix that, I cut out a small square piece at the gap location and glued in another piece of maple.

As you can see from the picture, I was desperately trying not to damage or scratch the Regal label decal. With no internal labels, this is the only evidence of what brand of guitar this is. I didn’t want to lose that.

Day 6: Repairing the Head 5



I let the glue set for a few days before starting to put a finish on the head. Because of the new wood, and some of the old wood being exposed, I had to put on a few coats of primer/sealer.

After the second coat, I let it set for a couple of days to dry. (Due to the rainy weather, finishes take longer to dry.)

Day 7: Binding Repair



A section of binding was broken off, and several pieces of the unique tiled wood purfling were missing, probably due to the guitar being dropped at one time. There was also a slightly loose section of binding on the upper left bout, which I strengthened with a thin white glue.

I cut tiny ebony and maple pieces to fill in the purfling spaces and began gluing them up. This actually lasted two days because I could only glue a few at a time and let them dry before adding more.

Day 8: More Binding & Head Repair



After a few days of piecing the tiny purfing tiles in, I was finally able to glue on the binding. This whole process was relatively simple. It just took a while to size all the pieces, glue them in, and cut a binding strip to fit.

This same day I put the first coat of color back on the head. I ended up putting around 5 coats of a water-based acrylic on both sides of the head. This first coat was a little too red, so I mixed less red in the burnt sienna for the next coats.

Day 9: A Very Busy Day



Day 9 saw me working on, and completing, several repair projects. I had put the last coat of color on the head and got it ready for several top coats of tung oil varnish. I also added some coloring to the new purfling tiles and binding, also getting it ready for tung oil.

The one original piece of hardware that survived, the tailpiece, had oxidized, partially rusted (eating through some of the electroplated nickel-silver), and lost one of the acorn nuts. I used 0000 steel wool (a super fine abrasive) to rub out the oxidation and rust, coated it with paste wax to help protect the surface, and put on new stainless steel acorn nuts.

Because new completed pickguards for archtop guitars are so expensive (up to over \$100), I purchased some bulk black/white/black laminated plastic at 15% of that price. I was able to design and cut out a pickguard very similar to the archtop guitars of the period this guitar came from and tapered the edges to show the lamination colors.

Day 10: Heel Cap Repair



The original plastic neck heel cap had been broken many year ago. To replace it, I first slipped a knife under the plastic and popped the cap off, then cut out a small piece of antique ivory, which was nearly the same color as the old plastic, and glued it in place.

Since the wooden part of the neck heel had been chipped, I filed and sanded it all down to an even taper. Then I added some coloring and prepared it for the tung oil varnish finish.

Day 11: Varnishing



On Day 11, I gave the entire guitar a final sanding, with 320 to 400 grit sandpaper and 0000 steel wool, cleaned it up, then applied a liberal coating of tung oil varnish. After the cleaning of the old wood, the tung oil brought out a nice honey color and a slight gloss to the instrument.

Day 12: An Unpleasant Surprise



When Day 12 dawned, I thought I would be finishing the instrument. Very early, I glued the nut back onto the end of the fretboard. Later in the day, after the glue dried, I installed all the hardware: gears, pickguard, tailpiece, and bridge. I began to string it up, anxiously anticipating the sound the guitar would make, only to discover that the bass E string on the nut had been worn so low as to make that string unplayable. It was actually sitting on the first fret and buzzing on the next two.

This setback added another day to the repair schedule, but was easily remedied. I chipped a small piece of plastic off the old broken heel cap that I removed and glued it into the bass E slot (as shown above). The next day, on Day 13 I was able to file the glued-in filler to raise the E string to its proper position.

Day 13: Completion



After fixing the nut problem, I was able to finally give the guitar a final waxing, with a non-abrasive paste wax, and string it up. I slid the bridge in its proper position and set the string height with the two bridge adjustment screws. I sat down and played it for nearly a half hour. It has decent volume and sounds very good. The neck, fingerboard, and arched shape are very comfortable to hold, and it is very easy to play.

My first guitar was a Silvertone f-hole archtop acoustic very similar to this guitar. (Silvertone at that time was made by Harmony, who also owned the Regal brand.) I remember it having good volume and a decent tone. This Regal archtop has a much better tone than I remember my Silvertone had, and has a much prettier finish than my old Silvertone.

This Regal archtop should now last long into the 21st century.