



Photo 1. The Regina Style 22, 8 1/2" Disc Musical Box.

THE REGINA RESTORATION, A TEST OF PATIENCE

Gary G. Stevenson

In 1983 at the Phonograph & Music Box Show and Sale in Union, Illinois, I traded for an eight-and-one-half inch Regina music box. The box worked but had more than its share of problems. The collector with whom I traded said the box needed some tender loving care to be worth what other boxes of the same style were worth. Being a collector with very limited funds but an artist with time and patience, this was the kind of project for which I was looking.

As soon as I got to my hotel room in Rockford, Illinois, that night, I opened my new toy to play an air and assess the extent of patience needed for this new project. The box came with four discs in varying conditions. I wound the box and played each disc, winding the box after each play since it would barely play a full disc per winding. After about a half-hour of play, it was time to call my wife to try to plead the case for my new project.

I said my hellos, and started to explain how this cute little music box with gnarled screws and rusted teeth was crying to follow me home. Before I could finish pleading the case for this hurting relic from the past, she stopped me cold saying, "But does it play?" "Yes!" I said, stretching the truth further out of shape. "It plays great, listen." I forced on a disc, locked the bar, and wound the spring. Before I could turn it on, something gave way with a roar she could hear in St. Louis, Missouri, without a phone. Rose, being a trusting friend and sensing my enthusiasm for the project, just chuckled and said, "I'll see it when you get home."

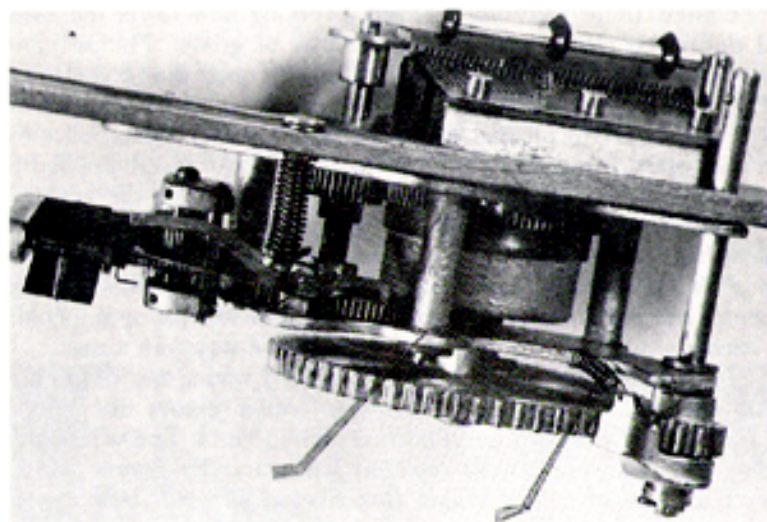


Photo 2. Side view of motor showing shims between motor fram and new ratchet spring.

The next day I went back to the show to spy out other eight-and-one-half inch Reginas. I had never seen a Regina this size before, and I had no idea what was missing. Trying to restore a music box is hard enough, but with nothing for comparison it would be next to impossible. I found only one other box like mine. The owner was very happy to talk about the music box and help me with shop notes for my restoration. Just looking at his beautifully restored machine, I knew I had a lot of work ahead of me. I walked the rest of the day looking for other discs and information. In my travels that day I bought five fine discs from Nancy Fratti and a copy of the *Encyclopedia of Mechanical Musical Instruments* which had one full page on eight-and-one-half inch Reginas.

I was like a child with a new toy in the trunk, and the 300 miles home seemed like a million. I was so anxious to start the restoration that on my way home, I was able to read some of the *Encyclopedia* as the start of my research on the Regina. I had no idea when I began reading these pages on Regina's eight-and-one-half inch, how long it would take or how much information would be found. For every question answered, that book made me think of more. My box No. 66204 came as part of a lot listed as sold to the Larkin Soap Company. What was the Larkin Soap Company?

At home months later, I started the restoration, a labor of love mapped out for weeks in my mind. I divided the work into three major parts: case, motor, and the hardest of all, the bedplate.

I knew from many years of woodworking how to fix the case. I used denatured alcohol to remove 70 years of grime. The seemingly brown-black finish became mahogany. I straightened the broken hinges and replaced the wood around them. I made a new lid support and used pins of mahogany to fill the loose screw holes. After a final once-over with very fine steel wool, two smooth coats of lacquer were applied just enough to make the case shimmer, but not enough to fill the grain.

The motor was a special kind of mess. Every screw on it was loose; it had more grease on it than the front end of a '54 Buick, and with #4 wood screws holding the ends of the spring, it looked as if a carpenter had put the mainspring in it. I even found a pin spring holding the ratchet arm. No wonder the mainspring gave way with a roar.

First things first. That grease had to go. I wound the spring down all the way, and held the spring barrel so I could remove the governor. Then the rest of the parts got their first bath in years. The wood screws holding the mainspring were replaced with carefully ground pins. (I think I read in an earlier *Music Box Society Journal* how to make wood screws work for spring pins, but I didn't think it said to use wood screws so large that the spring would barely fit.) I cleaned the extra grease from the governor, replaced the pin spring with one more suited for the job, put the parts back together, tightened the screws, wound it, and —IT DIDN'T WORK.

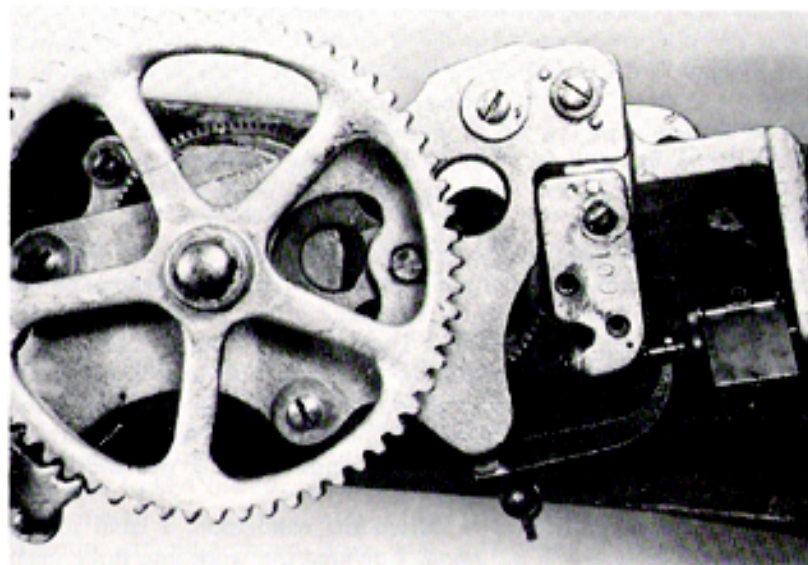


Photo 3. Bottom view of restored motor.

This, I thought, just didn't make any sense. Every bit of grime was gone and replaced by a light oiling. The mainspring was perfect, and every screw was snug. So what happened? I took the motor apart once more and put the gears back in one at a time, tightening the motor frame screws after each installation. Two gears later I found the problem. Either the shims were missing or the motor frame must have shrunk. I cut some thin brass shim stock, stacking it evenly between the legs of the bottom of the frame and the top of the frame, with all parts in place except the mainspring and the governor. The gears moved so smoothly. I put the remaining two parts in, wound it, and heard the hum of a well-tuned motor.

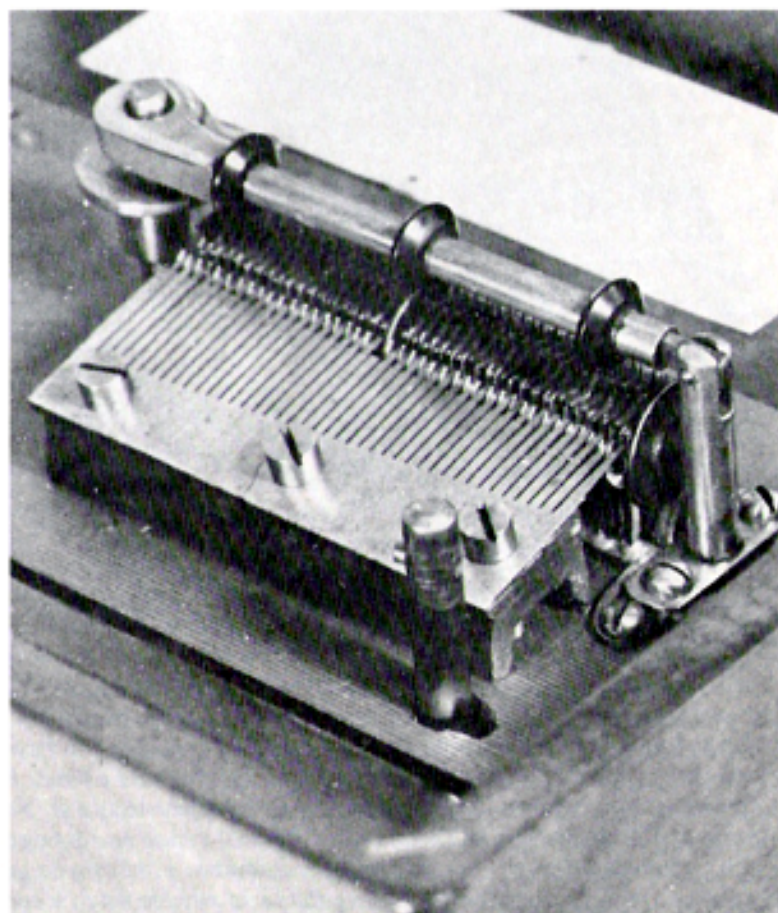


Photo 4. Close-up of damper rail, comb, star wheels and hold-down bar (note filled comb screws).

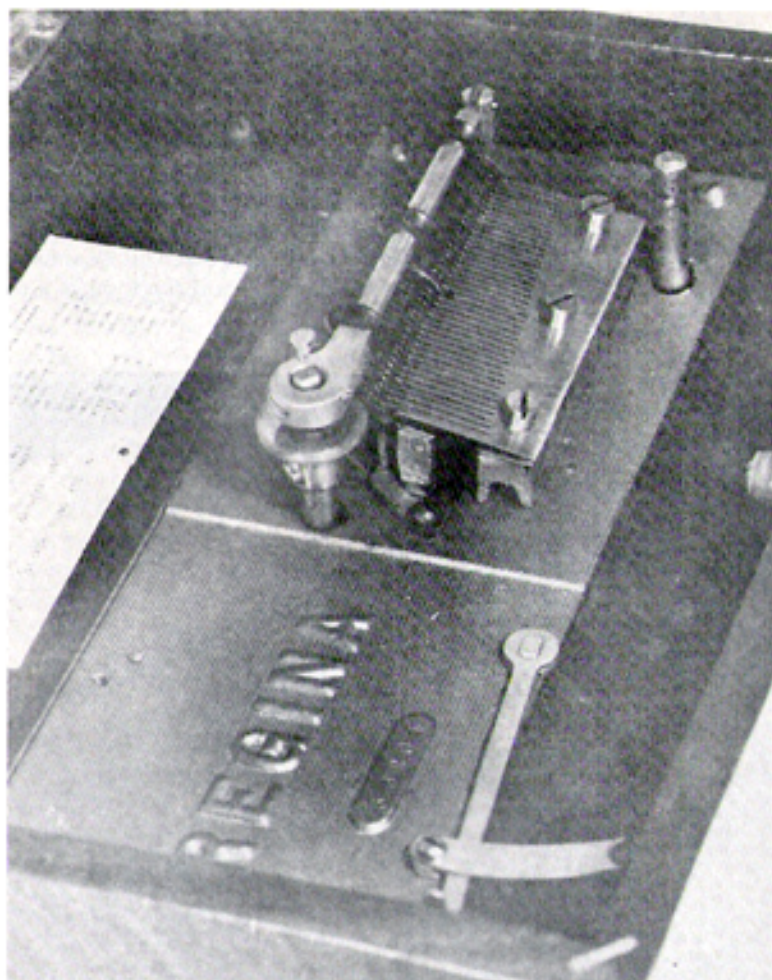


Photo 5. View of restored bed plate and comb mechanism.

With two of my major parts finished, the restoration took on a new set of problems. I had never restored this part of any music box before. I knew that if I tried to fix the bedplate but ruined it, I would then have a good-looking, smooth-running "parts" machine. On the other hand, if I didn't restore it, I had the same. Knowing that Nancy Fratti of New York was one of the best in music box restorations, I called her to beg for pointers. After describing what I had done and what I had to do, she gave me two don'ts: first, don't remove the star wheels; and second, don't damage the damper rail. The first was easy. The second would turn out to be much, much harder, for there was no damper rail. Nancy



Photo 6. My wife's anniversary gift with many of her discs.

told me that this was a common problem with boxes abused like this one. We decided that all I could do at this time was to fix what I could and hope she would be able to find a rail I could install and adjust.

Restoring the parts on the top of the bedplate turned out to be easier than I expected. With the damper rail missing, the only parts left were the comb, the star wheel, the disc hold-down, the center hub and the start lever.

I was very careful not to hurt the comb when I cleaned it with soapy water, and the rust came off with a light sanding with wet-&-dry #600 grit paper. The sanding was done in the direction of the teeth since that was the original direction. I knew I could only sand it once, because too much sanding would change the pitch. After cleaning, I dried it and applied a light coat of oil for rust protection.

I followed Nancy's advice and did not remove the star wheel gantry. With all the other parts off the bedplate, I could clean and inspect it for damage. I looked for frozen wheels, missing, worn or bent tips, and because the star wheel gantry is made up of many parts soldered together, I checked for cracks. The thorough cleaning left the bedplate gold in sad shape, so an even brushing of paint was applied. Now I could start putting things back together.

Most of the work left to do now was cleaning, polishing, and lacquering the brass parts. The disc pressure arm did have shims under it, so I noted their location (a practice that should be observed any time you take things apart).

After the three sections were restored, it was time to turn my attention toward putting these major parts together to play discs once more. It had been almost three months since I started this Regina restoration, and all the work led to this, the playing of a disc. I at least knew it could sound no worse than it did in Rockford the night I got it. It still had no damper rail, so I knew the buzzes and squeaks would be the bitter to go with the sweet notes of the composer's air.

I turned the machine on. This time I knew the thing would not hurt me or itself. Everything was right except for the absence of the damper rail. This time I was able to lightly apply the disc, not force it on, because I knew the spring holding the ratchet would not give way as it once did. My machine would now play ten songs with one winding and do it with ease.

With everything in order, I turned my attention to the damper rail. I was not able to find a damper rail to just install and adjust, but Nancy did send some drawings of the rail base and photos of one upon which she had once worked. With this information and damper fingers from the New Regina Company in Worth, Illinois, I was able to build the last part finally necessary to finish the restoration.

I have always felt you pay for education, whether in school or in time spent (though with lower instant return). This restoration was no exception. My chance for failure was considered and weighed against the condition the little Regina was in. I had very little to lose. Looking back, I realize that my poor box was destined to become parts anyway. I do not think just any box should be home restored, for many fine boxes have been simply destroyed by the cheap or easy fix. If you have to restore, know your limitations (we all have them), study your box and weigh your loss and history's loss if you fail. If, on the other hand, you can resurrect a lost box, a new chapter of that history may be heard by other generations.

In July, 1984, a shimmering rust-brown, eight-and-one-half inch Regina music box, No. 66204 and 47 airs were given to Rose Marie Stevenson for her sixth wedding anniversary. ♣

