

Refinishing A Stevens .410 Double Shotgun

How much time and effort do you put into mending a family heirloom? Sometimes, a repair doesn't have to be practical to make the effort worth it.

by Dominick Pisano

I began this project because it was worth the doing. Let me explain. The shotgun when first shown to me had a badly battered stock. That were several cracks on the side of and behind the receiver, both horizontally and vertically. The toe was broken off and there were signs that it had been broken off once before as I noted a patch in that area.

My first thought was this was not worth the time and effort to do the repairs, but then the customer told me that the shotgun was given to him by his father some 60 years before, and that his father had received it from his father when he was a child. This gun had a history that made it worthy of resurrection. Resurrection is a strong word and I don't use it lightly, but in this case it was appropriate. Who says that Americans are not sentimental?

After I got back to my shop I dismantled the gun so I could have a look see at those areas not apparent to the eye. This was a good news and a bad news story. The barreled action, while showing signs of wear, was tight and in very good condition. The bores were nice and shiny. There were no signs of pitting and I could see that there were clear signs of care bestowed on the gun. It was well oiled, perhaps too much so as the wood just behind the receiver showed evidence of oil soaking. I presumed that was the reason for the cracks as the wood looked as though it had been weakened by the overly-generous application of oil.

That was the bad news. I determined that I would have to find a way to remove some of the oil before a repair could be attempted. A review of my catalogs quickly brought to my attention something called Old Fashioned Whiting, a product that draws excess oil out of gunstocks and I ordered some immediately from Brownells.

Next I examined the chipped-out toe and proceeded to remove excess wood from the chip to make it smooth and flat. After I had removed enough wood I found a scrap piece of walnut of approximately the same color and cut off a piece approximately 1/2" x 1-1/8" x 3-1/2". This was smoothed up to guarantee a tight fit and provide a joint that would almost be invisible. Then it was a simple matter to mix up a small quantity of Brownells Acraglas Gel, add some brown stain and glue up the two parts. A small clamp applied enough pressure to insure a tight joint. Next came the trimming of the parch to size using various rasps and files. Along the way I also replaced the dowel from the previous repair.

With that accomplished I began to repair the cracks in the wrist behind the receiver. As I mentioned previously there were several, both horizontal and vertical. I determined it would be best to repair the horizontal cracks first as they were relatively minor and, once completed, would allow me to repair the more serious vertical crack. I mixed a small amount of clear epoxy. Gently prying open the cracks while being careful not to enlarge them,

I applied the epoxy. There were three cracks and I worked the epoxy into them by opening and closing the cracks allowing the epoxy to be drawn in. With this finished, I carefully clamped up the repairs and set everything away to set over night. The next day I removed the clamps and examined the work. It looked OK to me.

Now it was time to repair the major vertical crack which began at the juncture of the receiver and extended well back into the wrist. I cleaned the interior of the inletting to allow the epoxy to adhere properly and then opened up the area where the frame's rear tang meets the wood, hollowing it out below the surface of the wood to allow a build up of Acraglas Gel epoxy to fill the void created, thereby strengthening the area. This is where most of the recoil is absorbed when the gun is fired.

Because the crack was severe, I determined I would make the repair in two steps. The first step consisted of mixing up a batch of clear epoxy and applying it to the crack after opening it up bit to accept the epoxy. This would ensure a tight bond for the application of the Acraglas Gel in step two. I set the project aside for twenty four hours to allow the epoxy to cure.

To prepare for the second step I coated the frame and stock bolt with a generous application of paste wax to ensure that the metal and wood would not become permanently bonded together. Then I trimmed out excess epoxy from the inletted area



using a Dremel tool and rotary bit. Once this was accomplished I prepared a small amount of gel epoxy, adding a bit of brown dye to it and applied it to the inletted area. I then fitted the frame to the stock and carefully screwed the stock bolt in place. This ensured a tight fit and squeezed out excess epoxy, which was wiped away. I set the project aside for twenty four more hours to allow for complete curing of the epoxy.

The final step was to repair the area where the rear of the receiver and the wrist come together. This area was badly battered and the tongues on the stock were completely missing on one side and partially missing on the other. They are designed to fit into recesses in the rear

***Above left:** Chipped toe is smoothed out and squared up prior to a glue up of the patch. **Above right:** Patch glued in place and clamped up.*

of the frame to keep the sides of the stock from spreading apart upon recoil. This was accomplished by applying a small amount of epoxy gel to the front of the butt stock and applying more of the gel to the recesses on the frame. I was careful not to use too much epoxy as this would likely get into places where it didn't belong. After this was completed I clamped up the sides to get a proper fit. The following day I removed the clamps, smoothed away the excess epoxy and began the pro-

cess of cleaning up in preparation to refinishing the stock.

Unfortunately, one of the cracks opened up again, probably due to excessively oily wood. I applied two treatments of Whiting and pulled a pile of oil out of the stock. With that accomplished, I once again glued up the horizontal crack on the lower left part of the wrist using clear epoxy. Unfortunately, the crack opened up again after I removed the stock from the receiver. Apparently, the Whiting had failed to get far enough into

***Below left:** The toe repair is almost invisible. **Below right:** Another view of horizontal crack glue up and the clamps.*





the crack to remove enough oil and the glue joint did not hold.

The customer told me that he was not interested in an ultra refinish, requesting me to, "just make it presentable and shootable". Thus, I repaired this crack using a quarter-inch walnut dowel. While I was at it I reinforced the large vertical crack which was previously repaired and appeared to be holding up with another dowel of the same size. Both dowels would ultimately be difficult to see once the stock was refinished and the checkering recut.

Now I could begin sanding the old finish off before applying the new finish. I used a random orbital disk sander with 120 grit abrasive paper to do the majority of this work, and then by a light once over with 120 grit on a sanding block. This was fol-

Above left: Major vertical crack glued up and clamped. Note the generous use of epoxy. *Above right:* The recess mortices in the rear of the frame and the tenons in the stock epoxied together. Metal tape is placed on the frame to protect it during final sanding.

lowed by couple of passes at 220 grit, wet wetting, and steaming between passes. When I was satisfied the stock was nice and smooth I began applying my standard finish mix consisting of equal parts Tru-Oil and mineral spirits, wet sanding it into the wood. I followed this with two wet sandings of 320 grit before setting the stock aside to thoroughly cure. After a week the checkering was recut. The original checkering was fairly coarse and was not difficult to do. The best part was

that the repairs were difficult to see as were the dowels. I was satisfied with this project as was the customer when he saw the end results.

Sometimes we do repairs and refinishing that seems unwarranted. In this case a shooting gun with a long history was returned to the field much to the pleasure and enjoyment of the owner. One day I'm going to encourage this customer to do a compete make over for this prized family heirloom. **AG**

Below left: Dowels were installed to be certain the repair would hold up under use. The dowels were later smoothed flush. *Below right:* Completed repairs. Note that the dowels can not be seen.

