

# Finishing the Scoop and Rounding the Edge of the Violin

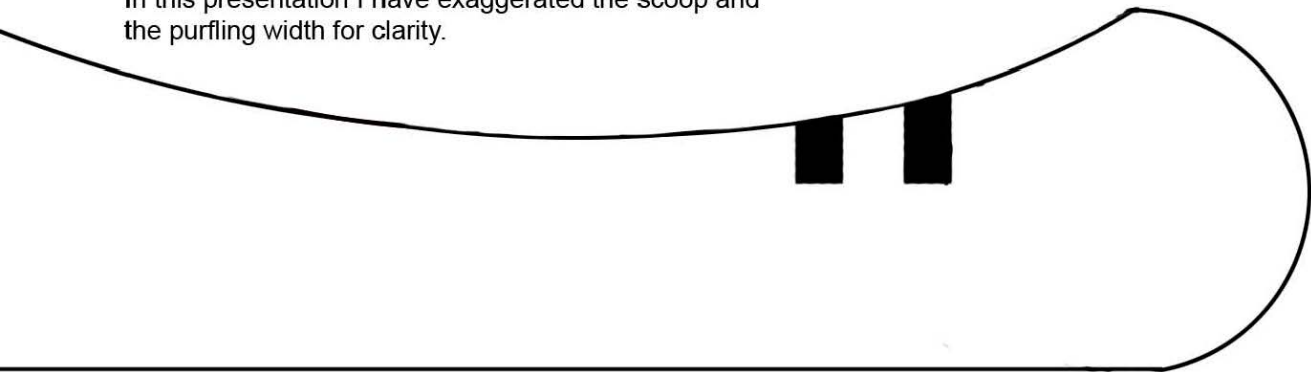
by Michael Darnton

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## EDGEWORK AND SCOOP

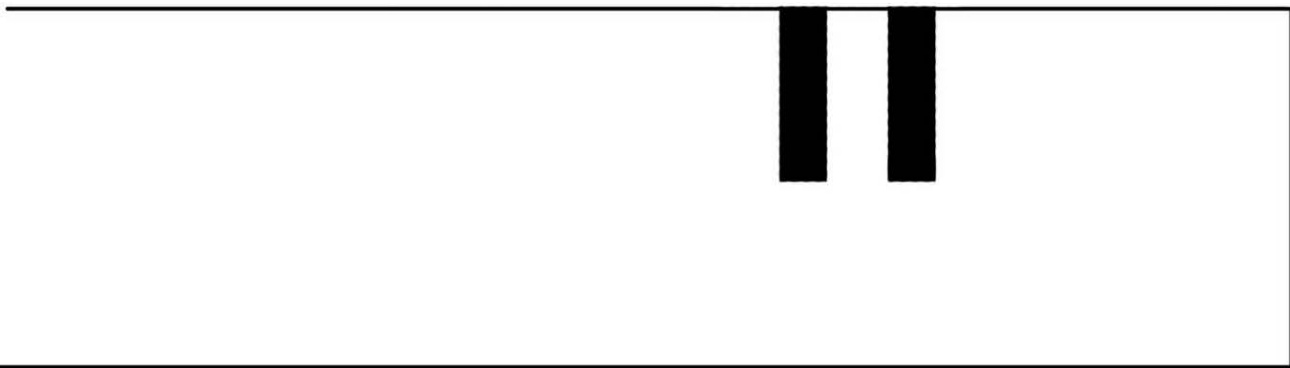
The objective is a scoop that bottoms out somewhere just inside the purfling, putting the purfling on the rise. The low point varies around the edge--generally closer to the edge where the body is narrower, and wider and farther in where the body is wider. The outside edge is rounded, the crest about 40% in and slightly accented from the inside. The junction between the rounding and the bottom of the plate is left slightly sharp. There should be about 3 or 3.5mm of wood under the scoop.

In this presentation I have exaggerated the scoop and the purfling width for clarity.

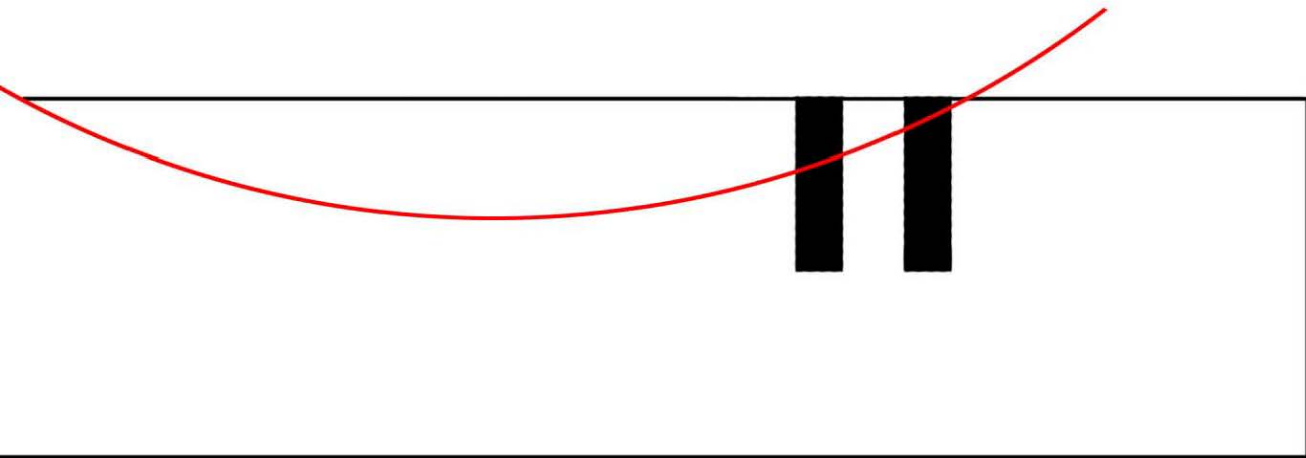


On Cremonese instruments the same tool was probably used for cutting the purfling and the edge thickness. A normal thickness is 4.0mm or a bit less, and the purfling that distance in from the edge. The purfling should be set about halfway through the plate.

In finishing the edge thickness, it's only necessary to cut in with the purfling cutter as far as the location of the anticipated crest of the edge, not all the way to the purfling. From there in, good enough is good enough.

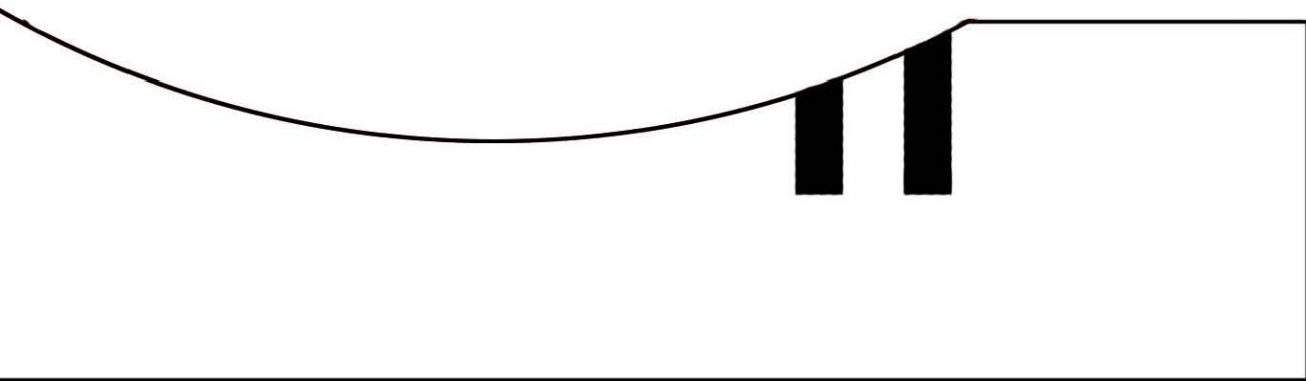


After the purfling is in, I make the initial gouge cut so that the bottom is just inside the purfling, and runs out within the purfling, so that I am not working against the grain on the outside of the purfling. I work all the way around the plate this way, changing direction as needed.

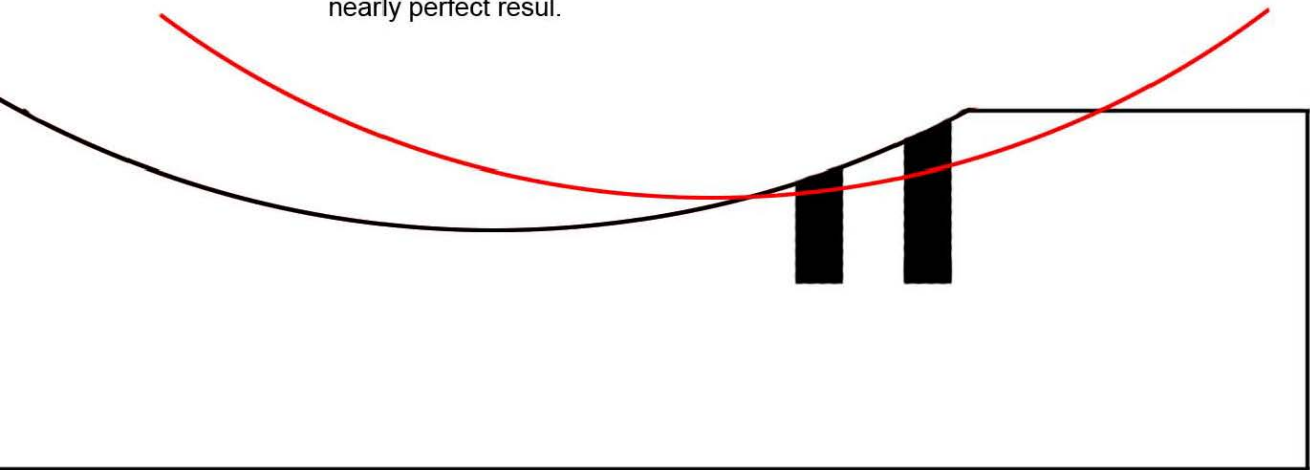


In the c-bouts it's necessary to use a slightly narrower and deeper gouge. Work for a consistent thickness under the scoop all around, perhaps a bit over 3.0mm in the outer bouts, and around 3.5mm in the c-bouts.

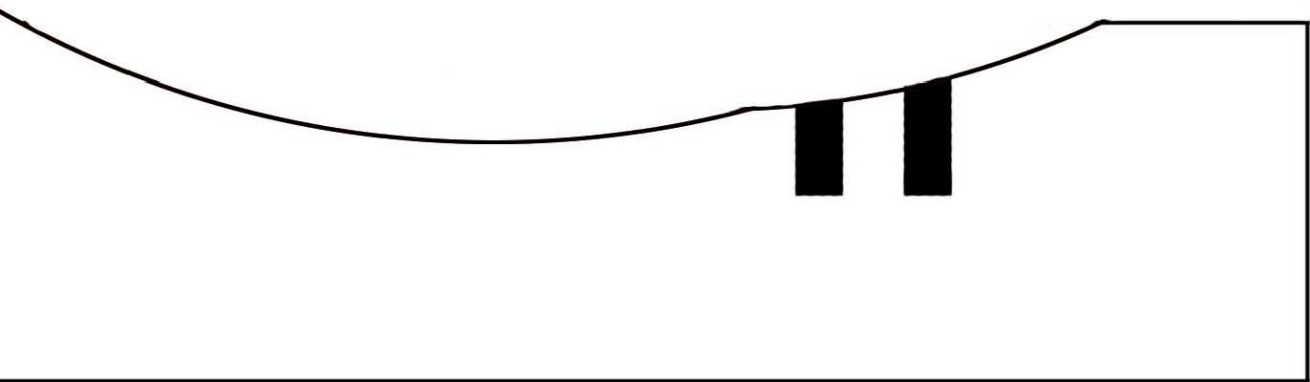
Before the next step it will be necessary to scribe a line around the edge at the anticipated crest position, using the purfling marker.



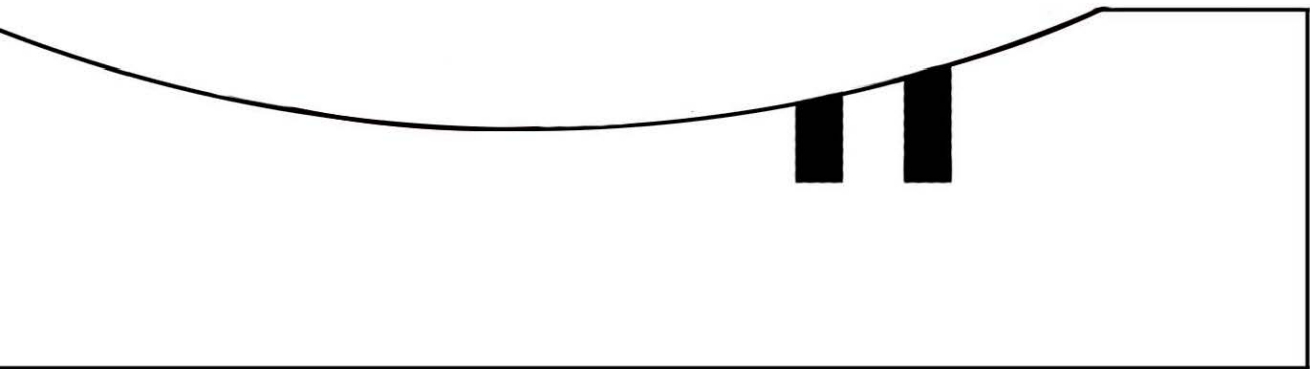
The area outside the purfling is cut separately, in the opposite direction, because of the grain direction. Don't cut all the way out to where your crest will be--leave a bit of room for scraping and clean-up, unless you're making a del Gesu model. I believe that what one sees on his instruments beyond the purfling is direct from the gouge. On the other hand, Stradivari does quite a bit more scraping in this area, for a nearly perfect result.



The second cut should come just to the inside of the purfling, more or less.



Quickly scrape and blend the two cuts. This also the point at which you should blend the scoop with the arching, and finish the arching. I leave the edge at this point until the top and back are ready to be glued on, after graduation, most final scraping, f-holes, and bass bar. That way the edgework won't be damaged by those steps.

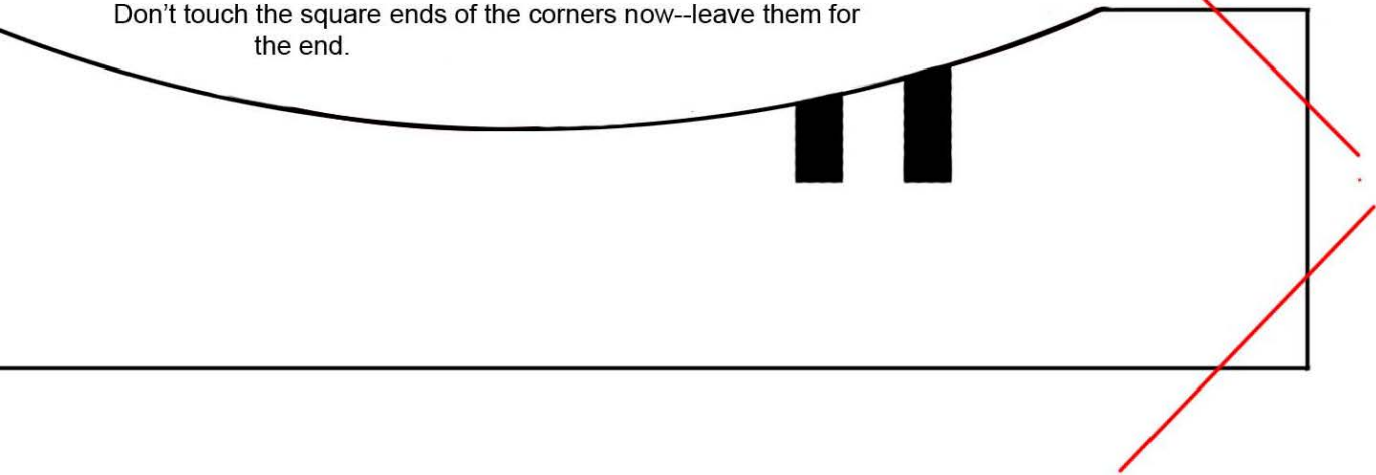




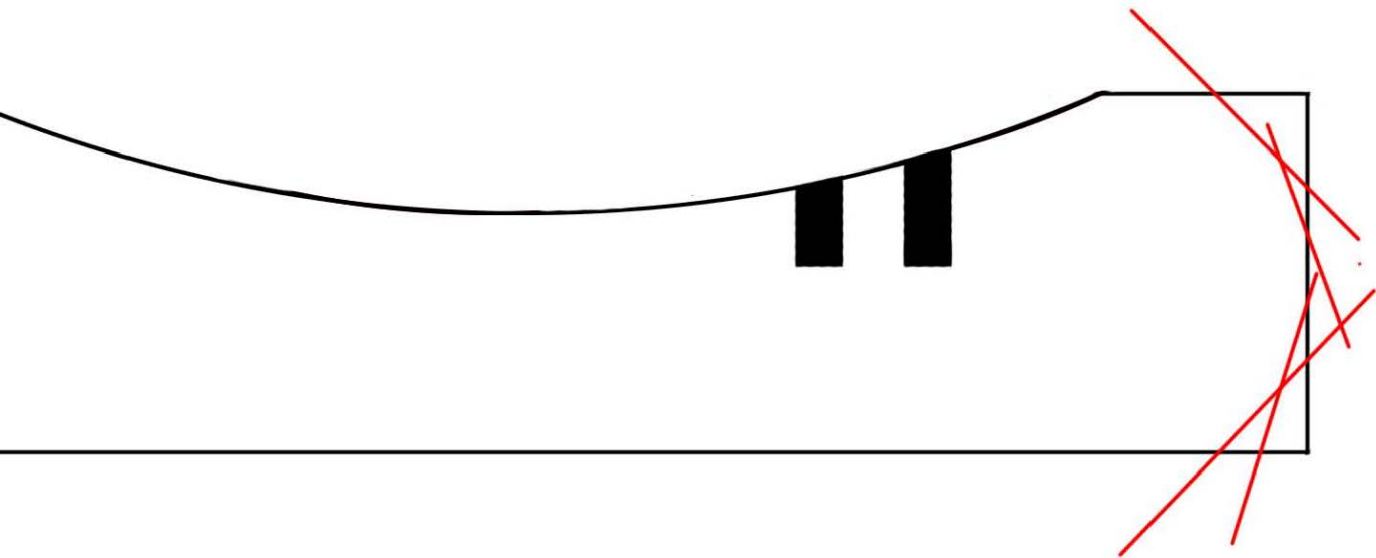
When it's time to glue the body together, finish the edge.

Start by making two 45-degree bevels with a file or flat fingerplane. The three facets of the edge--the two red lines here and the edge between them, should be all about the same size. This is an important factor in getting a nicely rounded edge, so be careful to be as precise as possible.

Don't touch the square ends of the corners now--leave them for the end.

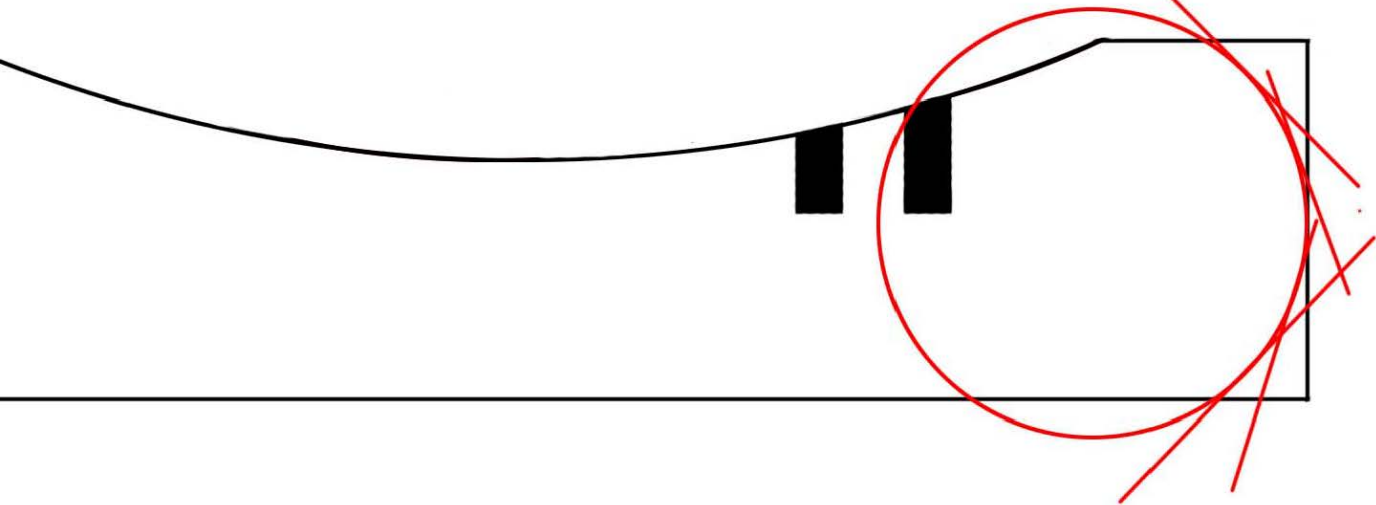


Neatly file the two outer-edge points into two more facets.



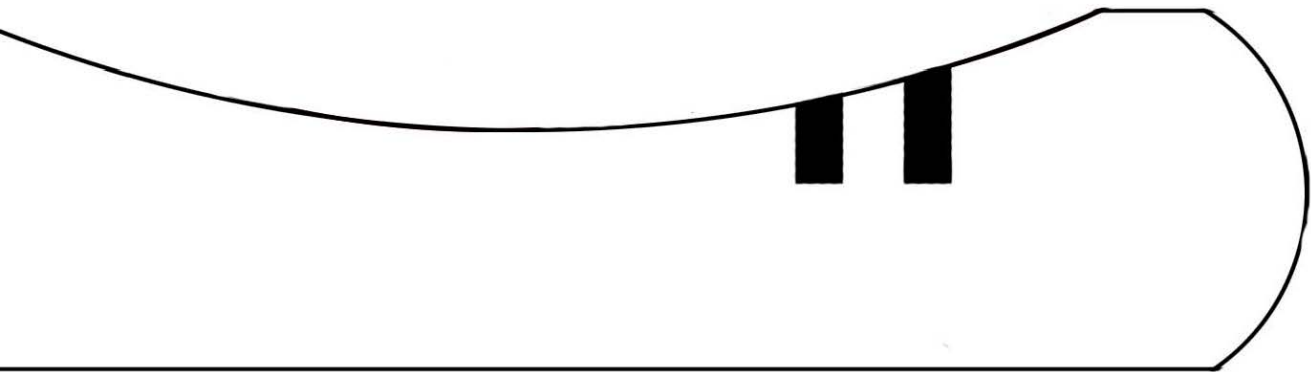
At this point, you can see a round edge starting to take shape.

As you work, you will find it helpful to view the edge from the side, as we see it here, to make sure that it doesn't have a squarish shape, unintentionally. Square edges with the corners knocked off are very common in amateur work.



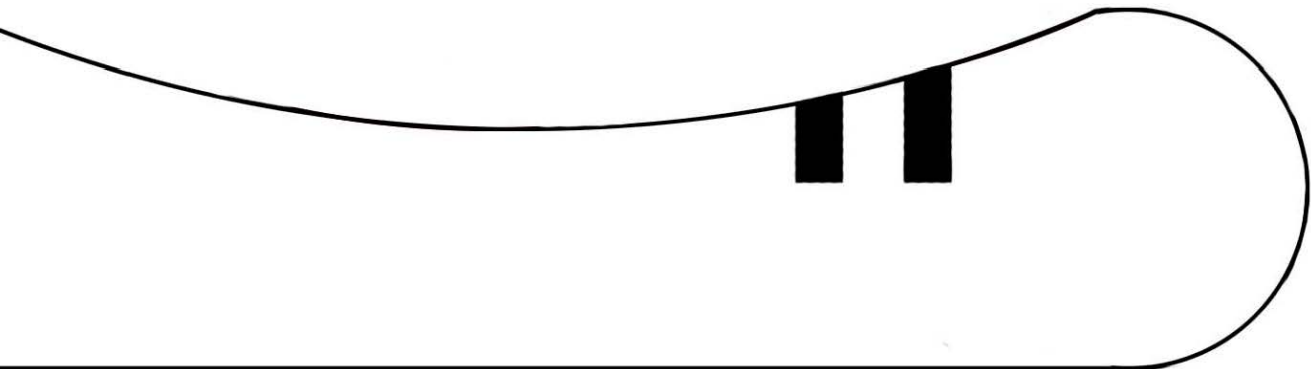
After a quick sanding with 150-grit sandpaper, the edge should look like this.

On the top, excessive sanding will cause the grainlines to stand out, so do as little as possible at this point.



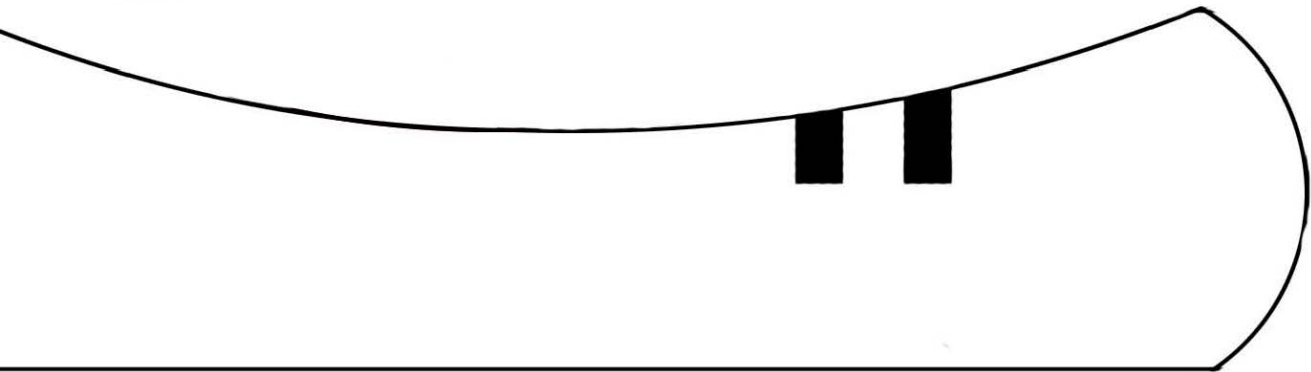
If one were to sand all the way around at this point, the edge would be quite round. On Strads this is most often a characteristic of his earliest violins. Knock off the point of the crest, and you end up with something more similar to a modern Italian.

Rounding off the bottom of the edge where it meets the gluing surface is not characteristic of Italian work.



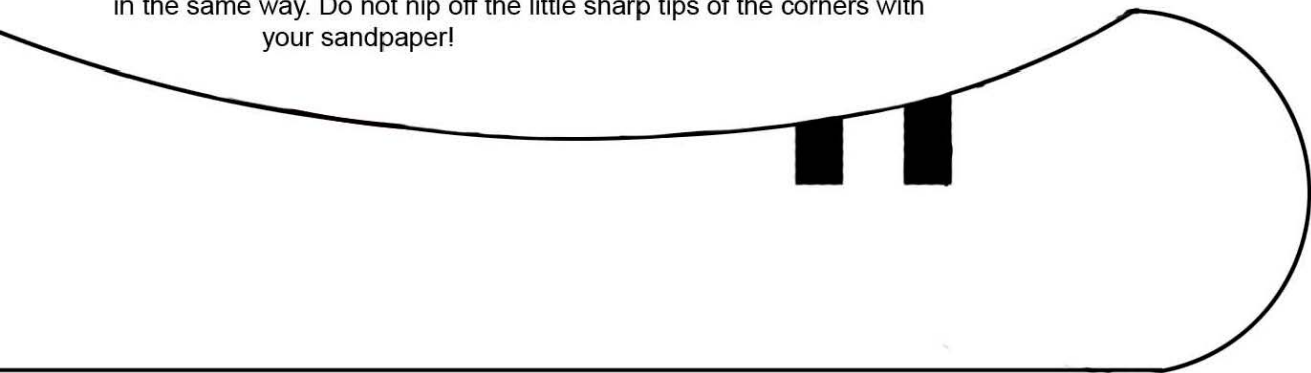
You could, if you wanted, leave the edge as you initially rounded it, and bring the scoop out to that point. The Messiah Strad has a bit of this.

Notice that the farther out the scoop goes, the more vertical the outer edge meets it, giving a sharper appearance. This sharpness is desirable, but having the scoop run so far out usually is not.



I compromise by rounding the edge in about 40% of the way from the outside, and also tightening the curve of the scoop outside the purfling to sharpen the crest a bit. The crest will also be sharper if you leave it a bit wide, initially, and sand it inwards after finishing the scoop, rather than sanding and then scraping the scoop.

After the edges are completely finished, you can round the tips of the corners in the same way. Do not nip off the little sharp tips of the corners with your sandpaper!



The finishing of the scoop into the corners is a particularly delicate operation, and there are several very different and characteristic ways to do that. Del Gesu and Stradivari are poles apart, and the Amati family is somewhere in between.

I'll cover that in a separate article.

--Michael Darnton, 19 August 2012