Metal and Wood: An Ideal Match

A cherry wood caprail provides the perfect touch to a beautiful railing.

By Ron Richardson
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At Downtown Ornamental Iron we usually have a pretty easy time helping customers design their railings. This time, however, we were approached by owners who had no idea what they wanted. Their only specific request was a cherry wood caprail.

It was now time to get out the idea books and 8 by 10 glossy photos. Before long, we started sketching some designs and a form began to take shape. One of our first decisions was to use channel for the bottom and top rails. When using wood, we prefer the channels because they are easier to roll, shape, and form on site.

The next challenge was deciding what to fill in between the rails. We liked the thought of using steel pickets and posts. The design we chose featured 5/8 inch hammered pickets with a basket placed at every other vertical member. To give the railings a special touch, we planned to plate the collars with 24 carat gold.

Fabrication began by rolling the channel as accurately as possible in the shop. Then, up to the house we went. Our first step was to set a temporary post at the top of the stairs. Then, using a Strait-O-Flex, we formed the channel to fit the lower wooden stringer. The Strait-O-Flex is our friend and a very nice tool. We also used a couple of large wrenches to bend the top and bottom pieces to the curve. The assembly was then held together by installing a couple of pickets, which had been pre-cut at the shop. As we began to tack on a few braces, we made sure the top rail was flat so that it would properly hold the wood cap.

Project Summary

Job Type: Steel and wood railing

Woodworker: Jordan Wood Works

Designer: Jointly conceived by fabricator and owner.

Highlights: Railing is made of 5/8 inch hammered edge solid bar. Collars are gold plated. The top and bottom wood is cherry. Approx. labor time: 82 hrs.

Finish: Both copper and brass liquid coating was applied with a brush and rubbed off. The base metal was boated with black paint and rubbed off.

Quote from the fabricator: "We like to use a channel for the bottom and top rails when wood is used because it's easier to roll to the shape and form on site."

To protect the unfinished wood from welding damage, we carefully taped it up. As we formed the top cap, we checked our rolling to be sure our offset was good and matched the stair railing offset. Most of the wood was solid, so we could drill and countersink anywhere we wanted.

At this point, we had the stair rail roughed in and all the pieces cut. Very carefully, the structure was disassembled so that it could be taken back to the shop for completion. Everything was loaded into our Ford service truck and off we went. We were thrilled because the job would be finished in record time.

But then came the "BIG BUMP." Whoever thought that a little bump on the road would shake a one ton truck like an earthquake? Well, it did and our temporary railing assembly fell apart. Apparently, the little tacks we placed to hold it together were TOO little! There was steel all over the truck and road.

Everything was loaded back on the truck and we headed home. Of course, we each accused each other of welding the one tack that failed. It was like a bad dream. We soon realized that it was too late to cry, and set off again for the job site. This time, we cranked up the portable wire welding machine and all welds were checked. Plus, we added a couple of cross braces.

The carpenters wondered why we were back at the job site so soon doing everything over again. Of course, we had to come clean on the answer, so we muttered things like, "we had to change something we didn't like," and "quality was lacking." Then we continued to babble about our quality control department until they became bored and went back to work.

On our second attempt, we got the railing back to the shop for completion. We set it up plum, added the pickets, and welded everything in. The gold collars had to be taken off the pickets and then reinstalled. Because we were afraid that over-crimping would damage the collars, we glued them. The collars were then covered with tape for protection.

Once welding was completed, rough spots were sanded and some caulking was used. For the finish, an iron clad bronze paint was used. After this dried, we covered approximately 40 percent of the surface with liquid copper. In addition, a little liquid brass and bronze metal finish was applied. To tone things down, we applied a black mist and then a clear finish. The final result looked great.

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We returned to the job site to install the final product. The wood was screwed down, and all screw heads were covered with Bondo. To finish the cherry wood, we called in Don Jordan of Jordan Wood Works. He first used strips cut out of the cherry wood. Using caution to keep the strips from getting mixed up, he carefully clamped the rail and glued each piece in place. The glued top caps were then removed and the assem-

bly was finished at his facility.

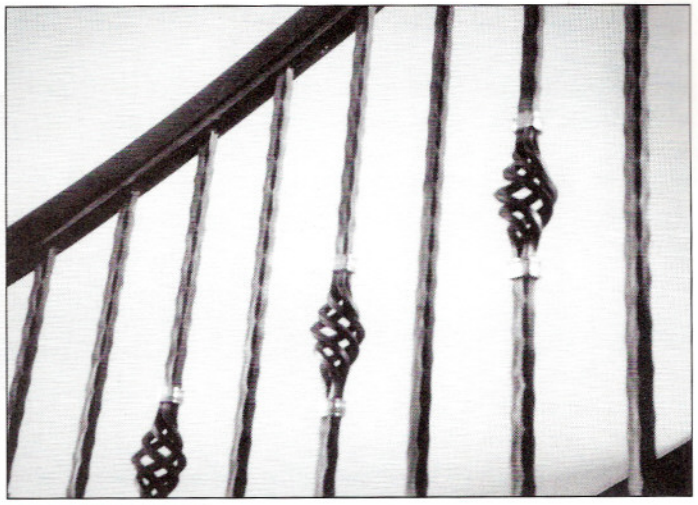
One challenge during this phase of the job was that the top rails must be straight on the wood well gap (under the wood to the top rail). Our plan was to pre-drill the top rail and then hide the screw heads after completion.

Just as we were applying the last touches to the railing, the owner had someone walk in and see the house. They made an offer and the house was sold to them. I like to think it was because of our nice rail. John Herbert, our shop foreman, is sure of it.

Don Jordan has worked on our railings before and does a great job. Using a qualified wood worker is the trick to having a nice finished product. Before bidding a job requiring wood, we always call Don and go over the project to make sure there's no surprises.

Jobs like this one make ornamental iron fun. And you can never hear, "It looks great" too many times. ❑

Downtown Ornamental, a NOMMA member since 1991, regularly uses wood in their projects.



A closeup shows the baskets and gold plated collars. The pickets were highlighted with liquid metal coatings.