

Solving a Mold Making Problem

By David E. Parvin, A.L.I.

I love a good mystery; it could be in a book, play, movie, or in my studio. Granted, the sculpting mysteries rarely involve dead bodies or large amounts of missing valuables; but are more of the “how in the world am I going to do that” variety. Recently such a problem presented itself. But let’s start at the beginning.

Several years ago I was asked if I could make something that could be an appropriate trophy for a lady named Dawn Denzer in honor of the work she had done for raising money to fight Parkinson’s disease. For many years, Mrs. Denzer had been the social editor for the Rocky Mountain News, but unfortunately, had just previously been diagnosed with Parkinson’s disease. I had known her from many a social function and felt I owed her for mentioning my name often in her column. I suggested that a cast of her hand holding something especially meaningful to her would be appropriate and my idea was accepted. I went to visit Dawn who was deteriorating in an assisted living facility. When I asked her what she wanted in her hand, she replied, “A Champaign glass, remember the good times...” Making the trophy was a piece of cake. I simply had her hold a champaign glass and submerge her hand into a container of alginate. The void made by hand was filled with Forton MG with copper powder. Since I had de-aired the Forton MG with a vacuum mixer, the impression was bubble free. After applying a vertigreen patina solution and buffing, the glass and hand were attached to a marble base (photo #1). I thought I had come to the end of the story, but I hadn’t.

Recently, someone from the Colorado Neurological Society told me that they had decided to make an annual Dawn Denzer Award which would be presented to a particularly significant supporter. I was asked if it would be possible to duplicate Dawn’s casting for the award. “Piece



Photo #1



Photo #2

of cake,” I replied and thought until I remembered she had passed away recently. Had she still be with us, I could have just cast her hand again holding a glass. As I described above, a life casting of a hand holding something is very easy to do. I have done hands holding a golf club, oar handles, baseballs, a bat, a book, a fishing rod, etc. For a duplicate, all one has to do is mold the hand and the object together. Of course, the object will be duplicated in the same material as the hand. No

one wanted a Forton MG Champaign glass. So in this case, I could make a mold of the original hand and champaign glass, extract them, place another Champaign glass into the mold and pour in metallic Forton MG which would become fingers around the stem. Still seemed doable until I realized that the Champaign glass was a problem. Since I would be making a mold of a rigid hand, the duplicate glass would have to be exactly like the original in order to fit. Unfortunately, I could not find any like the original. The fingers would have to be repositioned to fit a different glass; no easy task since the original cast of the hand was very rigid Forton MG.

The solution was to make a replica of the hand in a softer material. I broke the stem of the Champaign glass so that I could remove it. Next I constructed a masonite box around the hand (photo #2) and made a block mold using a very soft tin cured silicone rubber (11 durometer). After removing the original Forton MG hand, I cast a duplicate hand in urethane rubber (photo #3). Anyone who has read my articles over the last few years might remember that I much prefer silicones over urethanes, at least as far as rubbers are concerned. The only time that I use urethanes is if I want something cast in rubber using a silicone mold. Urethanes will not bond to silicones and visa versa. However, the new, flexible hand had a problem, the surface was sticky and would rub off with only casual contact causing a slight loss of detail. My rubbers expert, Michael Sisbarro, told me that for some reason, urethane rubbers with durometers less than 40 have a tendency to suffer surface inhibition when cast in tin cured silicone rubber. Because Dawn had been, let’s just say, a little older with some definite character in her hands, I thought that a minimal loss of detail might not be noticeable and it wasn’t. I fitted a new glass in the hand and made another block mold.

In order to make the hand grasp the new glass firmly, I had pushed pieces of wire, straightened out paper clips, into the thumb and several of the fingers. This allowed me to bend the fingers into new positions and have them remain in place. After the new mold had cured overnight, I made a zig zag incision, removed the glass and rubber hand, replaced the Champaign glass (Photo #4), closed the mold around the glass, and poured in Forton MG with copper powder. To prevent bubbles, I had vacuum mixed the Forton MG and allowed it to set up under 50 p.s.i. pressure. The end result, which was deemed acceptable, is shown in photo #5.

It would have been nice if this project had been for someone whom I could have charged big bucks. But I didn't feel right about charging anything to a non profit which is trying to rid the world of a crippling disease, especially a disease to which I have no assurance that I am immuned. I guess solving the problem has to be payment enough. And, after all, I'm still living the good times.



Photo #3



Photo#4



Photo#5

If you have questions or a trick that you're willing to share, please contact me at 303-321-1074 or parvinstudio@comcast.net. Even if you do email me, please include your phone number because I would rather talk than type. I promise to give credit for any new idea that I find useful.
