

A Method for Installing Brass Photoetch Parts to Models

by

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Brass photoetched (PE) parts have now become a staple of super-detailing for many kinds of models, but most especially models of modern steel ships. These kinds of parts are extremely delicate and easily distorted when picking them up with fingers or tweezers. Plus, they have no ability to spring back to shape if accidentally bent. Because of this and their small size, they can be a challenge to install (Fig. 7).



Fig. 7. A set of PE rails on a fret.



Fig. 8. Black and White glass pieces used for cutting and manipulating PE.

Recently, I finished a model an extensive system of hand rails in 1/700 scale, a common scale for plastic steel ship models. Although what I worked on is not a ship model, the method I developed is completely applicable to small scale plastic ship models of mostly steel ships commonly found in 1/200, 1/350, and 1/700 scale especially.

I started by ordering some 1/700 PE hand rails from a variety of Internet hobby providers (Fig. 7). Then, I watched some YouTube videos of other model builders installing brass rails and other parts to their models to get some ideas. I found only one to be that helpful for ship models, by [TheMuseumModeler](#) (check hyperlink). But his rails seemed of an older vintage and thicker and more robust than the very thin, delicate, and more realistic rails available today and easier to install than the newer ones.

To cut the PE, I got a couple of black and white glass samples from a local glass supplier (Fig. 8). I found the black glass to enhance the visibility of unpainted PE whereas the white glass enhanced the visibility of painted PE. The glass also provides a hard surface on which to cut the PE using a #10 curved X-Acto blade or small curved edge surgical scalpel

(Fig. 9). Be careful not to cause the cut piece to flick off into oblivion by gently holding it down or using a plastic dome to constrain where it goes.



Fig. 9. Cutting PE with a scalpel on black glass.



Fig. 10. Tacky glues

Most modelers glue PE in place using cyanoacrylate (CA) super glue. But this glue dries very fast often before one has an opportunity to maneuver the PE into its proper position. I imagined that if I could only make the plastic surface just slightly tacky without causing the PE to permanently bond, then I could have all the time needed to position the PE properly.

I initially considered using sugar water to make the plastic surface tacky. But I realized that could cause my model to become crewed by an army of ants! Instead, I found two glues that could make a surface tacky without making a permanent glue bond (Fig. 10). **Aleene's Tack-it Over and Over** can be gotten from Amazon. **Detail Tack** is sold by Micro-Mark. Both work very well.

I placed a glue droplet on an index card and scooped up a bit on a disposable microbrush swab (Item #: 8317M) from Micro-Mark (Fig. 11). Then I painted a glue line on the place where I wanted to place the PE (Fig. 12).



Fig. 11. Picking up a bit of tacky glue on a disposable paint brush.

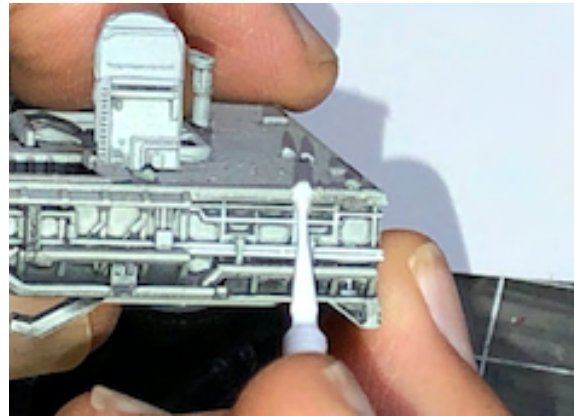


Fig. 12. Painting a line of tacky glue on the edge of a model.

As mentioned above, the current PE railing offerings are much more delicate than ones from prior years making them susceptible to damage by fingers or tweezers. To solve this problem, I got some **Pulpdent Pic-n-Stic** which are a sort of Q-tip with a sticky cotton tip (Fig. 13) allowing the PE to be picked up without having to squeeze it.



Fig. 13. Picking up a PE rail with a **Pic-n-Stic**.



Fig. 14. Precise placement of the PE rail where it belongs sticking via tacky glue.

The stickiness of the **Pic-n-Stic** can be reduced by rubbing skin oil into the cotton tip by rolling it between one's finger tips to make it easier to release the PE onto it's designated site. With this, there is plenty of time to maneuver the PE precisely into its desired location with tweezers or a needle on a dowel handle (Fig. 14).

Now the PE joint with the plastic base can be made permanent by applying a small amount of **super thin CA glue** with applicators made

from sewing needles where the eyes of the needles have been half cut off (Fig. 15) allowing the glue to be taken up on the applicator via capillary action and then applied on the joint also via capillary action (Fig. 16).

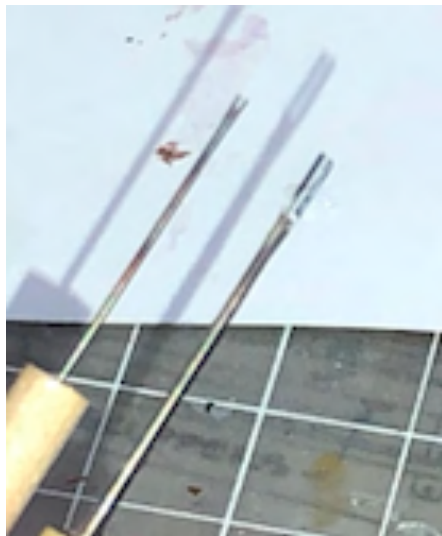


Fig. 15. CA glue applicators made from half clipping the eyes of sewing needles.

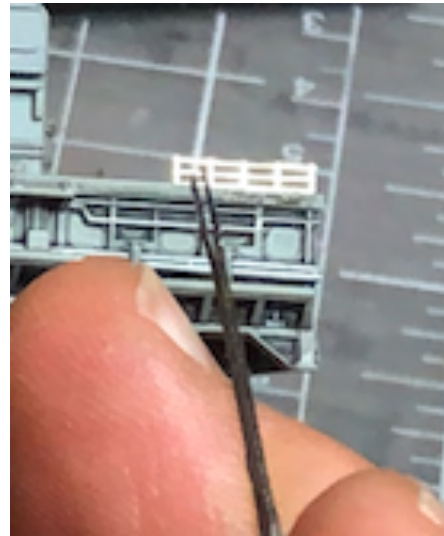


Fig. 16. Applying super thin CA glue to the PE rail joint with the plastic base. The glue gets into the joint via capillary action.

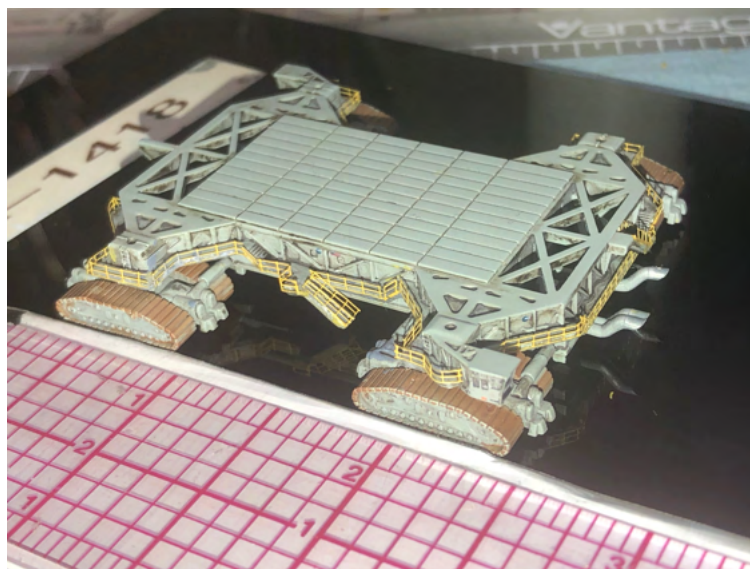


Fig. 17. An example of the near-perfect placement of 1/700 scale yellow hand rails on a circumferential catwalk of a space shuttle crawler-transporter using this method.

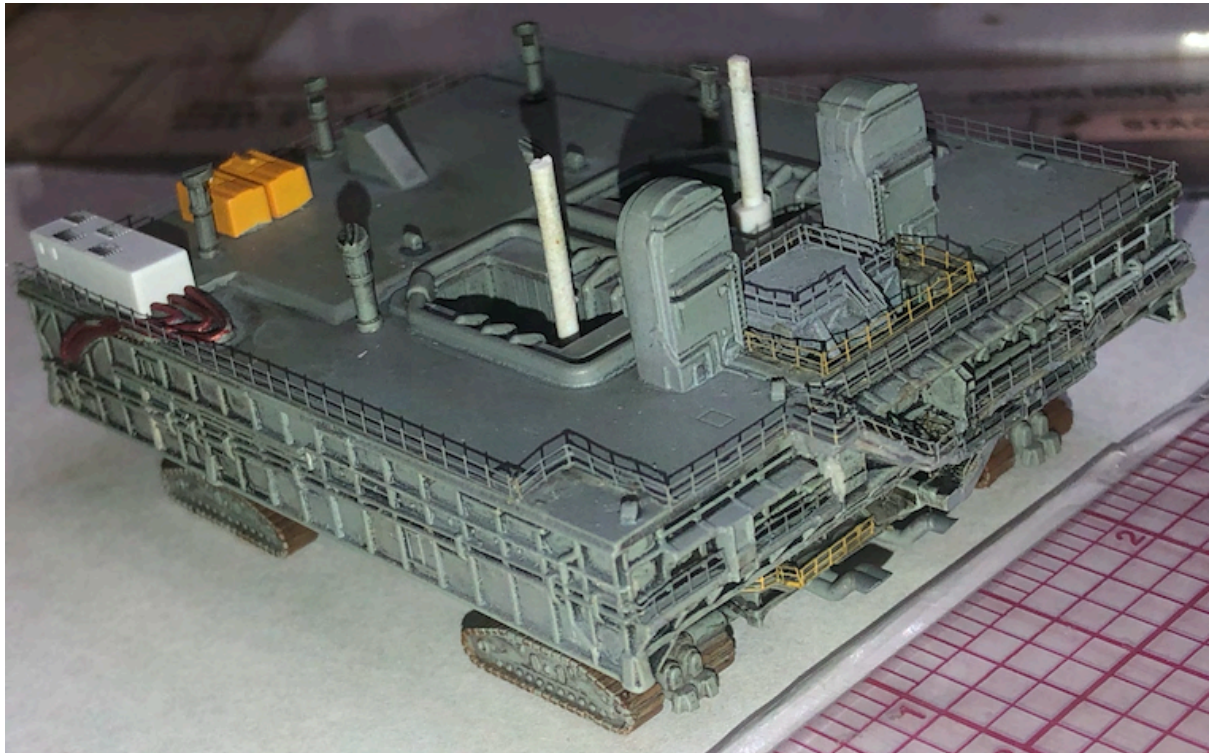


Fig. 18. Excellent example of placement of 1/700 handrails on a space shuttle launch platform.

Although these are not ship models, they do illustrate what can be done with this method of applying small scale handrails and any other PE detail to any model. Boy, 1/700 takes good eyes! With the carronade, I am moving up the scale ladder to an easier modeling life!