

## GOOD FOREVER CAR SIDES

### Pre-gluing side and roof panels for scratchbuilding or craftsman freight and passenger rolling stock kits.

By Bob Parrish

When building a craftsman kit or scratchbuilding a model there is a part of us that really intends this to be something of a forever sort of thing. There is a lot of time involved in building such models and doing it again is not on the desirable options list. It is possible for the scribed panel siding to shrink over extended periods of time; that is, after ten or twenty years. Although this seems like an unnecessary concern, there are many craftsman kit cars still in service on model railroads after such periods of time. There are numerous kit manufacturers who provide scribed basswood panels for their freight and passenger kits precut to the height necessary for the model but the width is to be fitted by the kit builder. Often the panels are not of sufficient width to cover an entire car side with the panels as provided. They must be placed side by side to fill out the length of the model. This is where the problem of durability begins. Those side panels must be glued together to create a single permanent side panel.

The technique shown here is one used by cabinetmakers that apply veneer panels on furniture. On large pieces of furniture such as tabletops the veneer panels cannot be applied individually and get a tight fit. Therefore they must be assembled into large sheets that will then be glued to the core wood of the table or cabinet. The best glues for basswood kits are the yellow woodworker's glue products from either Borden or Franklin Companies. My experience with this goes back to a piano restoration house in Chicago in the early 1960's.

In modeling, this step in the construction process is important but for different reasons. Most construction methods call for the scribed panels to be glued on an open framework of wood such as a box car. The linear (with the grain) shrinkage of the core wood structure of a box car kit is essentially zero. Thus the length of a box car will never change. The scribed panels glued across these boards, which are subject to shrinkage, will attempt to shrink on their own and often break away from the core wood frame. Evidence of this shrinkage will show up at weak spots in the grain or unbonded locations such as panel segments. As you can see from examination of the parts in your kit, the width of the scribed materials for siding or roofing are of a fixed and constant width. The supplier of the wood products to the kit manufacturer usually establishes this width. Seldom is the panel width equal to the length of the finished model. The car door may hide not all scribed panel seams. Therefore scribed wood must be connected in strips to cover the longer surfaces. Example of this would be the scribed panels under the windows of an eighty-foot passenger car. Although we have very good bonding materials, shrinkage is still an issue. See Fig. 1 for a failed joint.



Fig.1 Failed joint of a 40 year old model.

The following instructions will demonstrate how to create panels that are greater than the full length of the kit and workable as a single piece to be cemented down. The entire process should not add more than one half hour to the build time of the kit.

Identify all side and roof scribed panels as the kit might provide. Examine each edge of the panel to ensure a full board with of scribing. Many panels come with a half board on one or both edges, which must be removed.

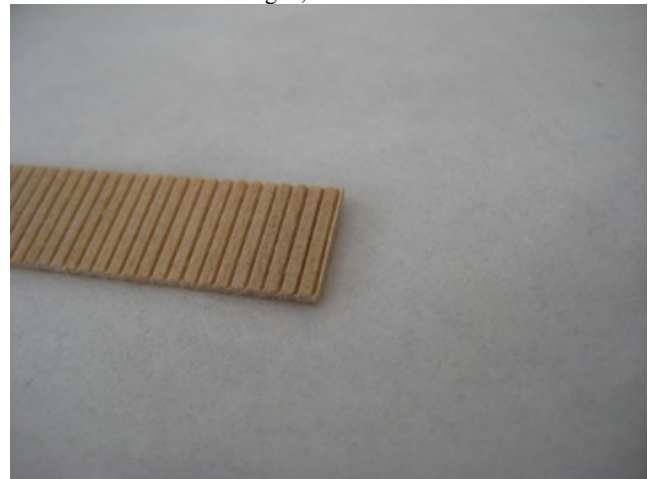


Fig. 2 Incomplete board

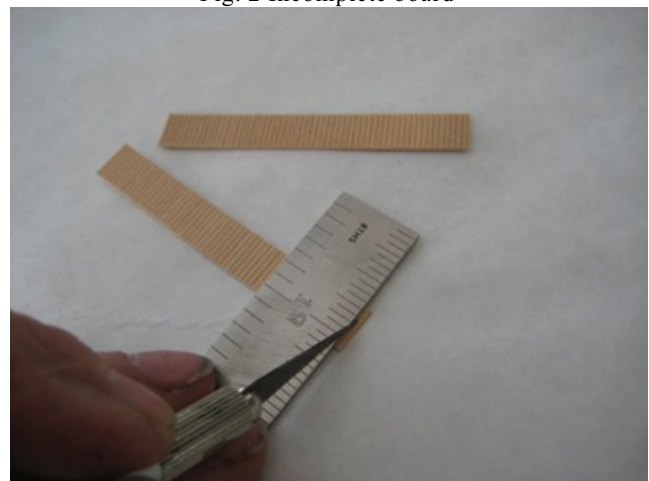


Fig. 2a Trimming off incomplete board.

Trim away any partial boards with a straight edge and new knife blade. Once these edges are prepared press them together side to side and see if the board spacing looks even. If not trim off a second whole board to obtain a true edge. There is adequate material supplied for a few missed trial cuts. See Fig.2 and 2a.

Place a three to four inch strip of blue painter's tape on your work surface sticky side up. At 90 degrees to the tape place your first scribed panel, scribed lines down on the tape, covering half of the tape. See fig. 3. It is important that the tape runs with the scribed lines, that is, with the grain of the wood, as the tape is designed to stretch in one direction only. For this operation we need no stretch what so ever.

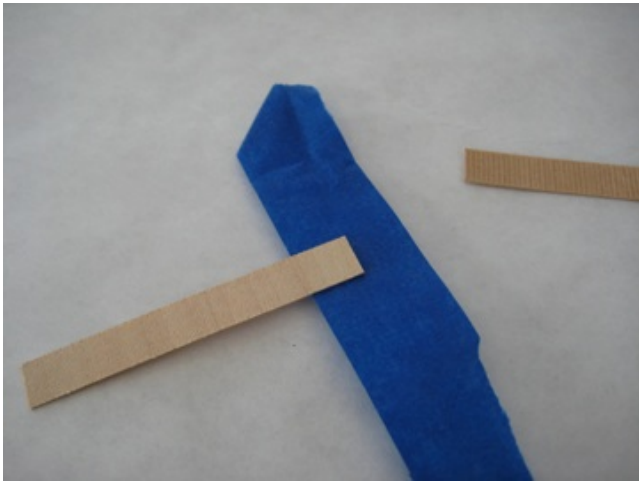


Fig. 3 One panel on blue tape

Place the second panel on the tape pressing the edges together as tightly as possible. There should be no blue visible in the seam of the wood. See Fig. 4. Be sure to align the top and bottom edges of the panels with each other to offer a straight line to come to the roof or windowsill of you model.

Fold the tape in half so that the two panel edges are visible. See Fig.5.

Place a thin wipe of glue along these two edges and lay the panels back flat on your worktable. A small amount of glue that might press out should be wiped away. See Fig. 6. Be sure not to flood so much glue in this joint that the scribed lines on the front of the panel become clogged.

Once flat, place second strip of tape on the wood allowing the ends of the tape to adhere to the first strip of tape. See Fig 7.



Fig. 4 Second panel applied.

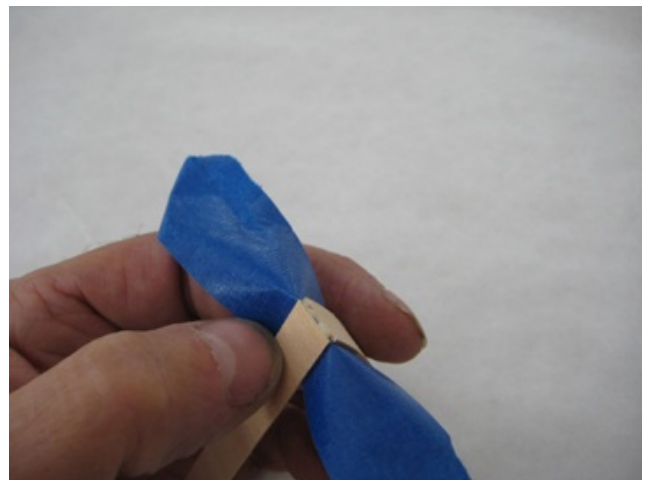


Fig. 5 Folded panel for gluing.

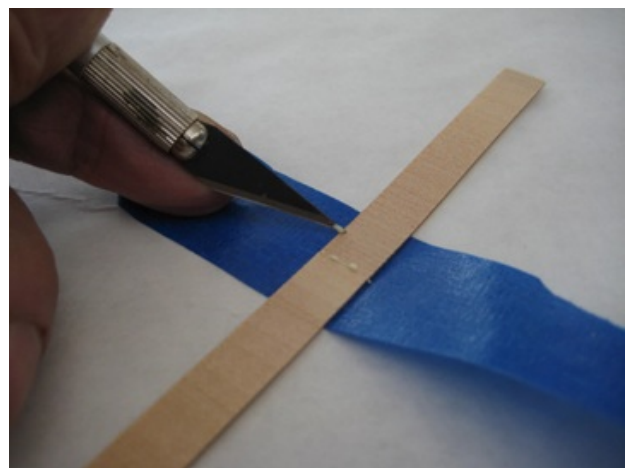


Fig. 6 Panels laid flat with glue bumps exposed.

Set aside over night until dry. Make up all siding and roof panels in this fashion in preparation to bonding to the substructure of your model.

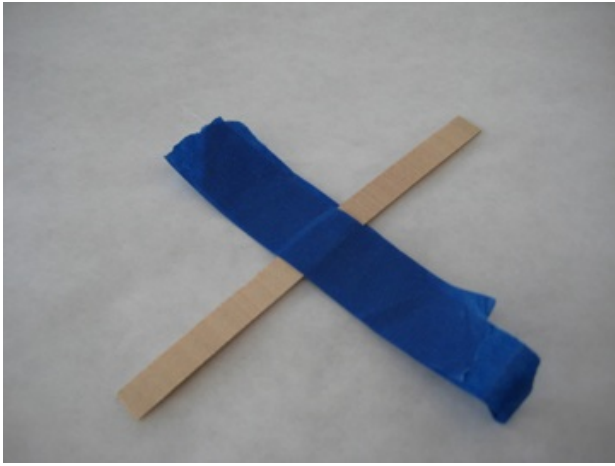


Fig. 7 Second blue tape. Allow to dry.

To remove the tape cut with a sharp knife along one edge of the combined panel. See Fig.8



Fig. 8 Cutting for tape removal.

Pick off the tape from one side and pull around to the second side and remove all blue tape.

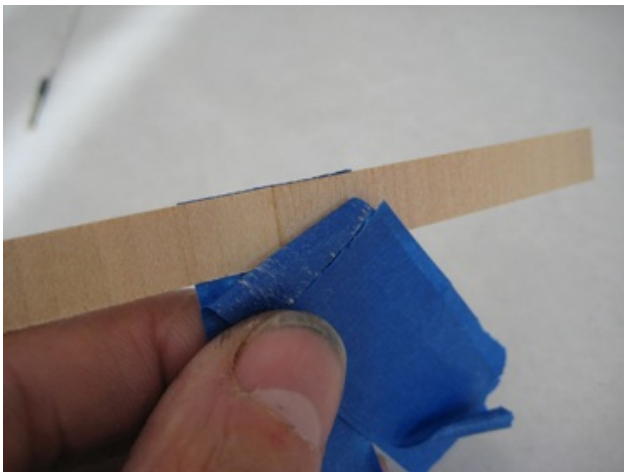


Fig. 8 Peel back tape.

If there is any glue in the scribed line it can be removed or filed to create the original pattern of the scribing.

Attempt to flex the panel slightly to test for a solid bond. You will be surprised how the combined panel acts much like the wood at the glue joint. See Fig. 9.



Fig. 9 Finished panel ready for application.

In all of the example photos I have used a narrow strip of scribed wood for under the windows of a passenger car. The instructions for wider strips for a box car or a flat car deck would be exactly the same.

Once all panels are bonded and cleared of tape you may proceed with the assembly of your kit with the instructions provided by the kit manufacturer. This procedure will give you a great looking model and will give you decades of like new appearance.