

Weekly work updates from February 2004 through December 2004 on the restoration of the 1895 lumber schooner *C. A. Thayer*

March 8 - 12, 2004

The outer bottom planking continues to come off, starboard and port. By the end of the week, we have taken off down through Strake #10. The planks are coming off intact, the spikes and trunnels being cut through, as the planks are forced out with hydraulic jacks and wedges.

The backs of the planks as they come off do not look very good. In each plank there are areas of softness where they have been up against bad frames. This is apparently dry rot, eating at the plank. If the planks are to be reused, they will need to have the rotten areas removed, and replaced with solid material. It remains to be determined if this is either possible or desirable.

These planks are in lengths of up to about 90 feet. They are typically about 14 inches wide. We will have trouble replacing planking of this quality. The material is graded "Ship Planking" by the Western Lumber group. It must be dense material with no knots along the caulking seams. We can get it in 40' lengths, but it will take some doing, and some considerable expense, to get it in longer lengths. We must make this attempt.

We have begun to assess the condition of the framing as it becomes exposed. In general, perhaps a fifth of the framing in the topside area can be reused. The best areas are in the bows, where the 1969 replacements have held up well. The port side is not bad around the after house bulkhead. We hope that we will begin to get into mostly good framing at about strake #8 in the mid-body. This is the area that we see from the inside, salt-water soaked, including the floors, the lower frame members which cross the centerline.

We also begin to assess the condition of the thick ceiling. Again, there are limited runs of good material. The best of it is in the port quarter. Overall, there are good patches, but within a couple of frame spaces of sound planking, the same plank will be mostly rotted through. Again, the original material is in 80 plus foot lengths.

We confirm that the thick ceiling planks are edge drift fastened. Unfortunately, this becomes apparent in areas where we can pull the planking out by the handful. We do note that the forward and after portions of the thick ceiling, 8" thick in all, are made up of two layers of 4" material, forward of about Frame #13 and aft of about Frame 33. We see this in the top and bottom of the air strake, so that at least strake 16 and 15 are doubled. We infer that the others are. This is later confirmed aft on the starboard side, around Frame 60, where the outer 4" plank has rotted off, leaving a finished surface. This is perhaps strake #13 of the ceiling.

We also got a chance to look at the pattern of trunnels driven fore-and-aft to fasten the futtocks of the frame pairs. In general, over the length of the vessel, the trunnels are driven from aft. We see the square heads of the trunnels left proud. Only the after

framing, beginning at Frame 53, and the forward framing, beginning at Frame 6, are driven from forward. This indicates that the vessel was mostly built from aft to forward, presumably beginning with the first full frame. We know that the frames were assembled on a flat floor before being lifted up into place on the hull. That the trunnels were driven from aft indicates that the forward face of the frame was laid down first, and then the after futtock laid on top before being fastened.

We learn, later in the week, that the bottom, or forward, futtock of the pair is called the “layer” and the top futtock the “cover.” Allen Rawl brings us this terminology.

Another major conceptual discovery for the week was that the forward timbers of the full frame pairs are the floors, and run unbroken across the center of the keel. The floors run out to a lap style joint on either side. We thought initially that these might be scarfs, but as we look from the outside, it looks like there is a wedge running back to the next butt. We will figure out how this works in coming weeks. In any event, the floor is the “layer” and the naval timbers, butting on the centerline are the “cover”.

We also learn how the transom and topside planking join together. It is essentially a bevel or miter joint. The after two inches of the side planking, extending aft of the transom framing, is beveled at 45%. The transom planks are beveled on the forward or inboard two inches of their edges. From the side, therefore, we see two inches of the edge of the four inch transom planking. A relatively neat joint, but in photos of both the *Thayer* and her sister the *Metha Nelson*, this seam is covered with a flashing strip, probably of lead, nailed in place.