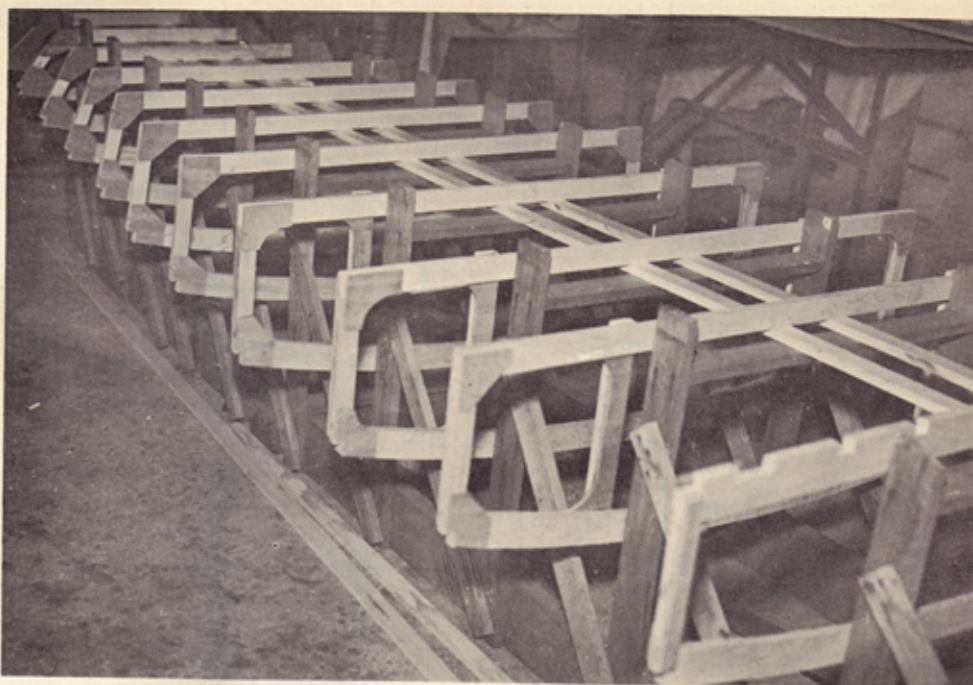


The frames (sometimes called ribs) are, for the most part, constructed out of spruce and are backed with plywood gussets. The pieces of the frame should be laid out and glued up directly over a full size drawing of each individual frame. Along with gluing, the gussets are attached to the other pieces of the frame with monel boat nails. The nails insure proper position of the frame pieces while the glue is drying as well as adding strength to the finished member. They should not be removed.

After all the frames are completed, two motor-stringers are cut out of 5/8" or 3/4" thick sitka and in later construction are backed with 1/8" plywood. This lamination adds extreme strength without the expense of additional weight. Great care must be taken in the construction of the motor-stringers for they are the heart of the boat and all main members of the hull will be secured to them throughout the hull's construction.

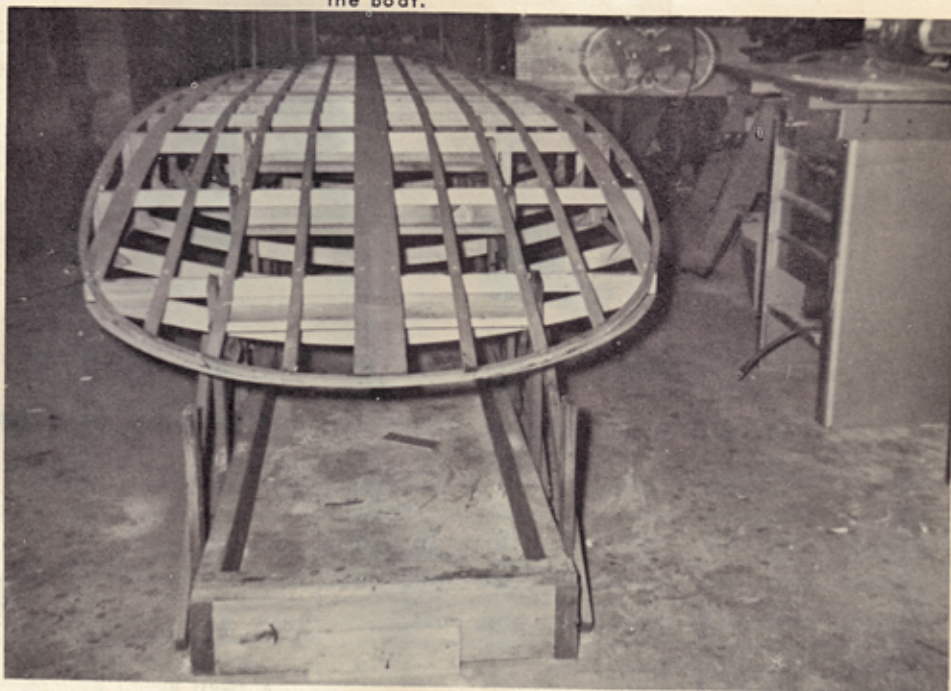
With all of the frames complete and the motor-stringers ready, a jig is assembled over which the entire hull will be constructed. The jig will insure accuracy of frame-placement and motor-stringer placement throughout construction. It also adds to the simplicity in lining up all additional members. The motor-stringers and frames are now assembled on the jig at the same time.

Now we are ready to add the keel, battens, stringers, and chines. The keel is first. It runs down the center of the bottom, the full length of the hull. It is made of sitka spruce and is about 3" wide x 3/4" thick. The nose piece must be attached at this point of construction as all of the longitudinal members that run the full length of the hull must be attached and secured to it. The nose piece is laminated from strips of wood around the front of the boat. Next we add the chines. The order in which longitudinal members are attached assures proper alignment of the hull while it is under construction. After the chines are secured with screws and glue, the battens are laid in place. The battens are similar to stringers in that they support the planking of the hull. Three narrow battens are installed on each side of the keel. They are about 1" x 3/4" or 5/8". Next a 2" batten is added



The frames and motor stringers are fitted on the jig simultaneously. The jig will insure accuracy throughout the hulls construction. Note that the notches for the battens, stringers, and chines are cut before assembly.

With the frames secured to the jig, and stringers in place, the nose piece is added. It is assembled out of pieces laminated together for additional strength and actually constitutes the round nose of the boat.



on each outside edge of the bottom. It is used to secure the sponsons, air-traps, and plywood bottom planking. - So much for the bottom.

Now we will add another chine. This one is called the "top" or "upper chine". It will be used to attach the side planking and deck planking of the top of the boat. With all of the chines, battens, keel, etc. secured in

place, we now prepare to plank the hull by first faring and shaping the entire assembly to assure uniform area to which the planking will be secured. The transom and side planking are next. 1/4", 5 ply plywood is recommended in either mahogany or birch. 3 ply is acceptable, however. After the side planking is glued and nailed to the frame, it should be trimmed and