



# mallard



**Light enough for car-top carry, this 14-foot plywood duck boat will keep you dry on hunting trips and also make a good blind.**

**A**UTUMN has a variety of meanings for the sportsman. To some it means the sight of a fine buck or the whirr of a covey of ruffed grouse. But to the confirmed duck hunter, it is the welcome sight of long flights of greenheads or pintails on the way to their feeding grounds. Like many other sports, the pleasure derived from this form of hunting depends to a large extent on the equipment employed. And at the top of the list in importance is the type of boat used. If it's some heavy old skiff rented on the grounds or a makeshift skeet that drenches you with spray when the wind picks up, the hunting becomes a chore instead of a sport. On the other hand, with a boat like Mallard that is especially designed for duck hunting, you'll get more enjoyment from your gunning and maybe bag an extra bird or two.

The boat described in this article is ex-

tremely light in weight, just under 100 lbs., so that it rides on top of your car instead of in a trailer behind it. For all this lightness, the boat is strong and rugged, thanks to the sturdy framing and the plywood construction. By using ordinary care in building and under normal service conditions, there shouldn't be any leaks during the lifetime of the boat. And there's no need to worry about spray coming aboard, the 11 inch freeboard will keep you bone dry and it is also low enough to permit using the boat as a blind when it's pulled ashore. An added attraction of this design is that by using the alternate square stern construction shown on the plans, you can attach an outboard motor and use Mallard for your fishing or general sports use as well as for hunting.

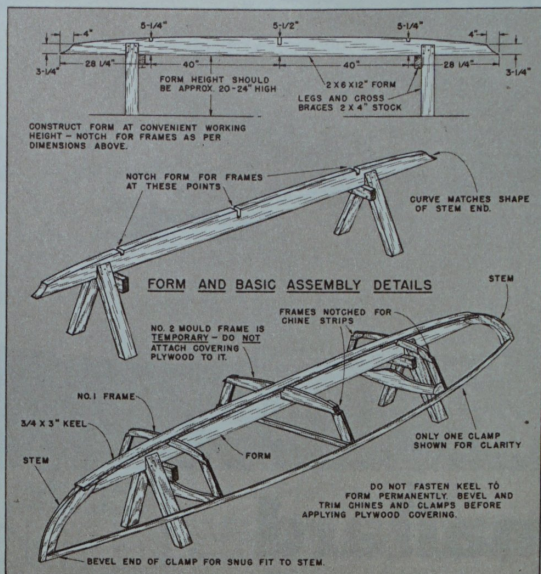
After you decide which type of boat you're going to build, either double-end



or outboard type, and adjusted the bill of materials accordingly, the first step is to make the building form, resembling a saw horse, on which the boat is built bottom side up.

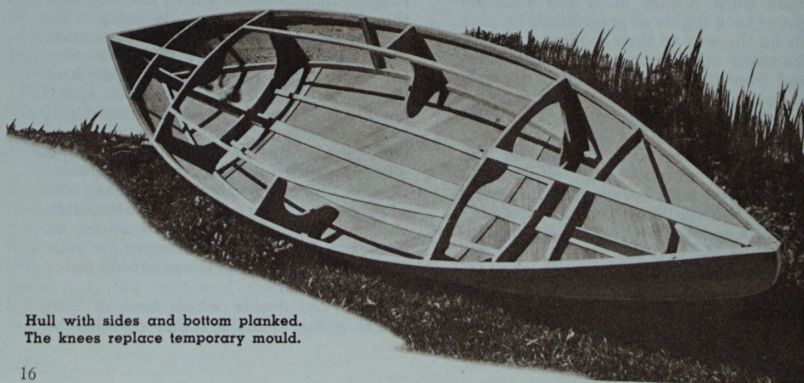
The description of the construction which follows is given for the double-end type boat only. With a few minor changes, it also applies to the outboard type. For either boat, the paper patterns that have been drawn full size are placed on top of the material, the outlines pricked through and the parts sawed to shape. As the temporary mould (in the double-end type only) will be discarded later on, use common lumber in making this. For the same reason, don't screw any parts of the framing to this mould but use lightly driven nails instead. After all the parts are cut to shape, the stems are beveled and notched for the keel, and the frames assembled on top of the patterns. Fasten the frames together by using plywood gussets, glued and secured with 1 in. No. 8 flat-head wood screws. The frames are then notched for the keel, chines and clamps.

The next step is to notch the building form to take the frames and stems which are mounted in their correct stations or



Building form on which hull framing is assembled bottom-side up. The form can be made of common lumber as it is discarded later.

positions. With the aid of a light batten sprung around the frames, they are marked and beveled. Follow this by fastening the  $\frac{3}{4}$  in. by 3 in. inner keel to the frame and stem notches using glue and two  $1\frac{1}{4}$  in. screws at each notch. The chines and clamps are then sprung into place, the ends beveled to fit the stems and fastened with glue and one  $1\frac{1}{4}$  in. No. 8 screw at each joint. Halfway be-

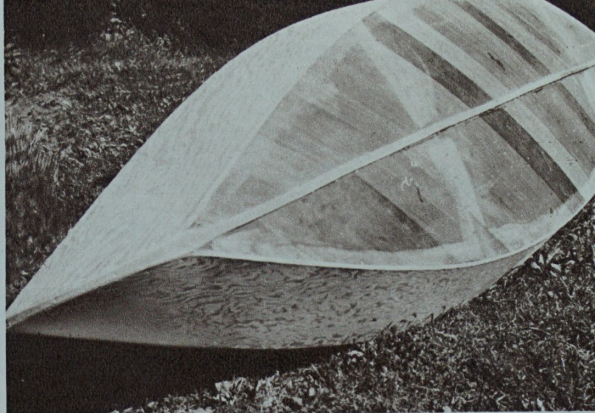


Hull with sides and bottom planked. The knees replace temporary mould.



tween the keel and the chine on either side, notch the frames for the bilge battens so they are a flush fit, and secure them in place with glue and one 1 3/4 in. No. 8 screw at each point.

The framing is now almost completed and all that remains is to trim and fair it (remove the flat spots) before applying the plywood planking on the bottom and sides. On the boat shown in the photos, 45° grain mahogany plywood was used but any resinous-glued fir plywood can be used. However, if you can't obtain this material, thin cedar planking, 1/2 in. in thickness can be substituted. With this, it will be necessary to use 1/2 in. by 1 in. battens, glued and nailed behind the seams. Using plywood, the bottom is planked first by making a paper pattern of the center area and then laying it on the 4 by 8 ft. sheet, so that you will have enough material left to plank the remainder of the bottom. By using paper or cardboard patterns and juggling them to fit the sheet, you'll avoid making errors in cutting the plywood. The arrangement of the plywood pieces on the bottom is shown in the drawing below. After the middle piece has been marked and cut to shape, slit it down the center for about a foot at either end so that it will be easier to bend to shape. Again using patterns, mark the remainder of the plywood sheet for the rest of the bottom planking and cut the pieces to shape. Before fastening the planking in place, coat all surfaces of the framing with a good marine glue and lay cloth strips on top of the wood. The strips are then recoated with the glue and the planking secured to the framing using



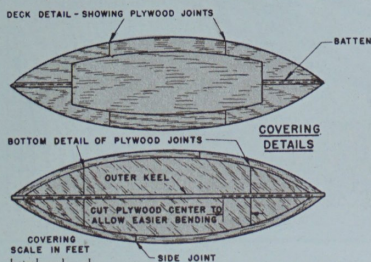
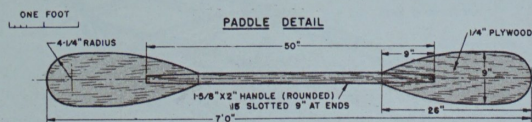
View of bottom planking with outer keel fastened in place. Seams in plywood are reinforced inside the hull with battens.

1 in. No. 8 screws, spaced 2 in. apart. A 1/4 in. by 1 1/2 in. oak batten is glued and fastened behind each seam using 5/8 in. copper or galvanized tacks. After the glue is dry, the planking is trimmed flush with the sides and any excess glue removed.

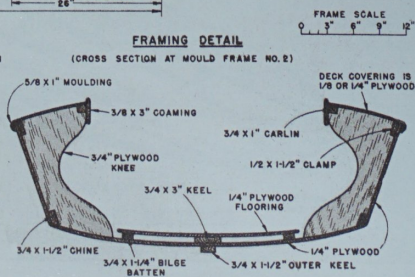
The procedure in planking the sides is very similar to that just described for the bottom. Paper or cardboard patterns are again used to lay out the sides on a 4 by 8 ft. sheet of plywood, the pieces marked and cut to shape. Repeat the gluing process using cloth strips and fasten the plywood to the chines with 1 in. No. 8 screws, and to the clamps with 1 1/4 in. galvanized shingle nails, clinched on the inside. Seam battens similar to those on the bottom are used behind the joints. Trim the planking and remove surplus glue.

At this point the hull is removed from the building form and turned right side up. The nails in the temporary mould are pulled out, the mould removed and dis-

Details of plywood planking and cross section of hull construction amidships.

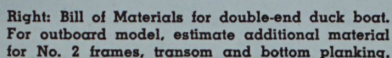


DETAILS OF DOUBLE  
END TYPE DUCKBOAT





(FOR DOUBLE END TYPE)



carded. In its place, the plywood knees are fitted. These are glued and fastened in place from the outside, using 1 in. No. 8 screws. Notches are cut in the knees and the tops of the frames for the carlins, which are glued in place with a 1½ in. screw at each joint. The deck beams are then fitted in place, glued and fastened with one 1½ in. No. 8 screw through each clamp from the outside. The last step in the framing is to install the deck battens, notching the stems, deck beams and tops of the frames for them. The deck is now covered with ½ in. plywood for light service or ¾ in.

### Approximate Quantities Required

Bottom	. . . . .	1 Pc.	$\frac{1}{4}$ " x 4' x 8'
Sides	. . . . .	1 Pc.	$\frac{1}{4}$ " x 4' x 8'
Deck	. . . . .	1 Pc.	$\frac{1}{8}$ " or $\frac{1}{4}$ " x 4' x 8'
Knees	. . . . .	1 Pc.	$\frac{3}{4}$ " x 2' x 2'

Seasoned White Oak  
or Straight-grained fir

Inner Keel . . . . .	1 Pc.	3/4"x12"x12'
Outer Keel . . . . .	2 Pcs.	3/4"x12"x12'
Clamps . . . . .	2 Pcs.	1/2"x1/2"x16'
Chines . . . . .	2 Pcs.	3/4"x12"x14'
No. 1 Frames (Permanent)	1 Pc.	3/4"x12"x16'
(Std. Lumber Width)	1 Pc.	3/4"x5"x6'
Mould Frame No. 2 (Temp.)		
(Common Lumber)	1 Pc.	3/4"x4"x6'
Stems . . . . .	1/2"x10"x2'	
Bilge Battens . . . . .	2 Pcs.	3/4"x14"x8'
Deck Beams . . . . .	1 Pc.	3/4"x5"x6'
Deck Battens . . . . .	2 Pcs.	3/4"x1"x6'
Carls . . . . .	2 Pcs.	3/4"x1"x8'
Coaming . . . . .	2 Pcs.	3/4"x3"x8'
Mouldings . . . . .	2 Pcs.	5/8"x1"x16'

*Additional parts not listed—use scrap material.*

### Fastenings

4 Gross—1" No. 8 F. H. Wood Screws, 4 Dozen 1 3/4"  
No. 8 F. H. Wood Screws, 1/4 Lb. 5/8" Copper or  
Galvanized Tacks, 1/2 Lb. Marine Glue, 1/2 Lb. 1 1/4"  
Galvanized Shingle Nails.





