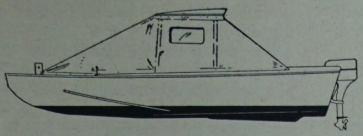
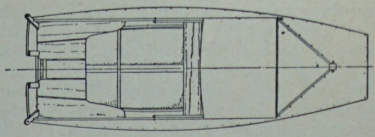




THE WANIGAN

BY WESTON FARMER

As old as boating in America is the garvey design. It's no wonder. These shoal-draft work horses combine super-simplicity with rugged carrying ability

THIS UTILITY GARVEY was designed to fill a need for a simple work scow anyone can build to use in a summer camp. You can haul rocks with her, fish out of her, beach her easily. The garvey is a gussied-up scow. The name is a local one, in use on the Jersey marsh reaches, where the water is thin, money sometimes thinner, and where the scow type of hull has for generations blossomed forth as the "garvey"—plebeian, often homely, always plain, but what a work horse!

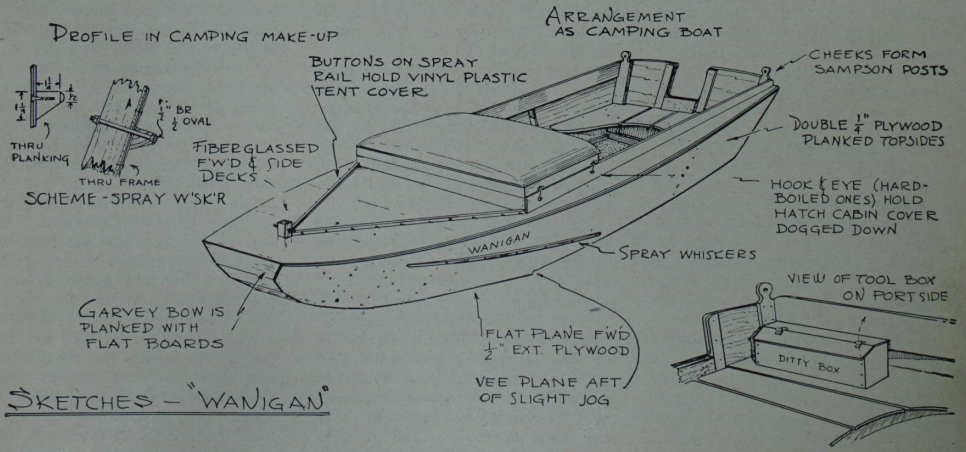
But even in this simple design there were some problems. I knew she'd have to be trailable, whereas the true garvey is heavy. She'd have to be fine-lined enough to move with from 3 to 7 hp kickers, and she'd have to have the carrying power of a north woods wanigan—a lumberjack's store boat—to lug the camping stuff Joe Doakes would.

How to meet these conflicting requirements may not loom large now, but they did at first.

I was sitting on a cedar stump in my yard after supper, when the answer came to me. There, before me, bottom up on the muskeg, was a boat I have loved for 46 years—*Badger*, about which I wrote and the design for which I presented in the 1956 BOATBUILDING ANNUAL.

Badger had the feel I wanted this new garvey to have. Here was a boat sized by some ancient master in the old Toppan Dory shops. I'd cruised her into every pothole from Duluth to Rossport, and loved her. Notwithstanding some purely dory traits, such as crankiness until loaded, she has given more pleasure to several owners than any other boat I can recall offhand.

Right there in the cool shadows of the forest I flopped her right side up, stood in her, and my feet felt all the old quirks she had. So I took a Swede saw, knocked off her top strakes for firewood—they were punky and she had to go sometime—and stuck laths in the muskeg to give



enlarged beam to the floor area between chines, tilted the lath to proper angles for stiffening the hull up under burden, and, transferring the resulting measurements to my notebook, sketched the profile and deck plan of the boat presented here.

She's thus part dory, part garvey, and part north woods wanigan. The combination of work-horse pedigrees back of her should produce a fine boat.

Now, as to the actual building of *Wanigan,* I have made my drawings as detailed as any good mechanic could wish, being quite thorough about the thing because I expect this design to become a classic. She has the earmarks for fame.

So I am not going to go into how to do every little thing, but rather describe some whys and wherefores of her construction and make-up, and perhaps the good mechanics who build her will be un-puzzled by these explanations, and perhaps some newcomers will learn some boating lore. A story is more readable this way.

To begin with, *Wanigan,* like every other boat, must be lofted before actual frame building is commenced. This means the whole boat, not just the body plan. The lines half-breadth and lines profile must gee up with the body plan.

No matter how often a designer writes about this initial step, somebody will always try to build his boat laying down the body plan only. He never gets the boat as designed, and never gets a *fair* boat.

This lofting process can best be effected on reject ¼″ plywood, or the lowest form of plywood. The surface drawn upon should be level.

On this plywood, strike a base line and a floor line, using either a taut piano wire, or a chalk line properly snapped to guide the straight edge while scribing with a chisel-pointed carpenter's pencil the line itself.

Mark off the station spacings carefully as to exact interval, and square from the base line erect the perpendiculars. If your grid is accurate, chances are the offsets will fair well. That is, the ¾″ x ¾″ pine batten you use to sweep the curves will go through all points with a minimum of shuffling about. But get the swept lines smooth and fair, regardless of the dimensions called for, then transfer the heights and half-breadth points to the body plan, making certain all agree, all fair up.

Here is where your floor layout pays off: draw in the chine fashion pieces forward, the stern knee aft, the keel batten and other inboard members. From these you can get your bevels and molded depths. Also, you can make half the pattern needed for the transom, because at this time you can expand the transom. The half breadths are along the raked face, so don't build a transom pattern from the end view in the body plan. This end view there is *projected,* not to true size, and if built on the projected size the transom will be too small.

Remember, too, that in beveling the transom you must allow for rake. If you lift the transom bevel from the sheer and chine lines on the floor, then measure this bevel off the flat face of the transom, it will be too acute, not fat enough.

Once the lines are down, and sweetly faired up all around and the inboard framing drawn in, then you subtract the planking thickness to get the rough unbeveled size of the frames.

The frames are to the lean side of the boat—they always are in any boat; that means that if the boat is narrowing toward the bow, you place the frame to the narrow side, cutting to size on the frame line. Then there will be material off which to take the bevel. Don't subtract the plank thickness by measuring the line in from the frame edge, but take a compass and sweep the plank thickness on a radius (see sketch) and then, when your frame is cut to the resulting mark, you've got her neat.

Now you make up your lumber list. It is a simple job, and where you save a day's wages or more, because everything is laid out before you to neat size, and you can go to your local lumber baron with fixed dimensions in your eye.

When a mill cuts all these little bitty pieces out of full-sized stock, they charge you for the complete big piece that is chewed up, as well as for the mill work at from $4 to $6 an hour. You pay for the waste, and the lumberman sells it again.

Better to go to a yard with your patterns, and tell the yardman what you are up to. If he is the average good skate he'll direct you to the scrap pile where, for almost nothing, you can pick up the knees, short end pieces, and in many cases stock for chine battens, and the like.

Of course your planking, keel, and other full-sized pieces will come at the prevailing rate, and you'll have the advantage of knowing the soundness of the material you buy.

For the bottom I have specified ½″ plywood—full ½″ marine, and nothing else. Anything less thick will "oil can," or call for a fistful of frames. In the interests of simplicity, the ½″ waterproof exterior or marine grade plywood will be cheapest in the long run. You'll need a panel 3′ x 12′ for the vee'd portion of the bottom, and for the foreplane bib. Many makers of plywood are now producing 12′ x 3′ panels instead of the old, awkward 4′ x 8′ size.

For the sides, we use double ¼″ plywood sheets. The first sheet is planked up, then the second laid over it, glued and riveted every five or six inches in a diamond or blanket pattern to dive strong, thick, and weighty topsides. Don't try to get away with ⅜″ plywood. The boat would be rubbery torsionally, and would not have fore-and-aft girder strength.

If you want to, and it works out better for you, the topsides can be planked seam-batten style out of full ½″ cedar, spruce, mahogany or any good planking wood. The main idea of heft should prevail throughout the construction of this boat, because ruggedness is more desirable than any other quality.

She is not a speeder, but meant to drive well with lower powers, hauling great loads of duffel and camp truck.

Now as to the knees for the frames: these should, by all rights, be cut from flitches taken from stumps, and thus be natural crook.

This part of any tree is universally thrown away these days, but if you can get a good elm stump, or white oak stump, or spruce or apple or lemonwood, or yew or cedar, you'll have the material for the frames you need and all out of one stump, in all probability. Ash is excellent, but avoid birch or maple—short-lived.

The skiff, garvey, and all slab-sided boats tend to pant unless the frames arrest the tendency before it can start. In the interests of stiffness, I have shown natural knees for frames. They are handclasped, or doubled, across the bottom. Thus, they give stiff sides, long life.

When I chopped up *Badger,* the oak knees were still sound after 46 years of service, and were chalky only under the limbers — those nibbed-off corners near the chine where the bilge water must run to get aft so you can bail it.

The frames may be extended to the floor line, with transom cheeks also so extended, and the boat built upside down in this fashion; but I believe a few false molds should be used, especially around the garvey's nose. These may be of ⅜″ plywood.

Now you are ready for the erection of the frame. Set up the transom on a line cross-scribed on the shop floor. Plumb and horn the frames into position, as well as the false molds around the nose. Brace

everything well.

Next, get out the nose chine pieces and the main chine battens, bolting them where they join as per the drawings.

The nose is a series of flats. If you use a round nose, the cross planks forward will have to be cupped. It is easier to put the cross planks on flat. Performance will in no way suffer. Use fastenings and screw spacings as shown.

Next, you plank the bottom. The vee'd aft plane goes on first, using Elmer's glue or some bedding compound like Kuhl's Bedlast.

Personally, I would prefer to plank the topsides first, letting the bottom lap out and under the topside planking. The trouble with this method would be in pre-aligning the chine piece aft. It will be easier to plank the bottom first, then plane off flush with the chine pieces, and let the topsides overlap.

Incidentally, *Badger's* topside plank came down over the bottom. She was only moderately rounded off here by shore abrasion after 46 years!

If you want chafing (not chaffing) protection, run a strip of fiber glass about 3″ wide on the bottom and topside.

Next, the forward flat plane bib is fastened in to the fashion piece. This fashion piece will allow transition from the flat to the V. It is not intended to be a step, and will have no effect either way on the boat's performance, at high or low speeds.

After sanding, and priming with Firzite, the hull can be caulked lightly in the forward cross seams, and flopped over on horses for trimming her out inboard.

Here you have some options. You can either build the short deck, side deck, and arrange the lifting hatch to produce a camping boat, or you can simply throw in a couple of risers, a stern sheet as planned and dimensioned, and a couple of thwarts. Depends upon the use to which you put her.

By all means, though, install the spray whiskers as shown, using bolts at frames, and screws elsewhere if you prefer. These are small oak strakes with sharp section to break the water seal against the hull in that portion where a bow wave will want to climb. These will have little effect in actually knocking down big choppy stuff, but you'll be amazed at how much drier this boat will run if you allow air to get in behind such bow waves—they fall away of their own weight if air does not hold them against the hull.

I have indicated a skeg in dotted lines. Possibly, if you make long runs on open water, she will handle with less attention to the steering tiller if this is on.

For river or marsh use, I don't think you'll need a skeg. The V in the after portion of the hull keeps the scale model tracking well, and I believe the full-size boat will behave exactly as the working model did. I always build a flotational model of every boat I design to check out the third dimension of design, and this model behaved exactly as predicted.

There are just a few more points: The carpentry on inboard trim is straightforward and needs no explanation to any man who is mechanic enough to attempt the boat in the first place. But I do think you ought to build the stern sheet exactly as shown—it will prove far more useful and comfortable than the usual ladder-slat hung across the risers in boats these days, and it will contain all the little wrenches, pliers, matches, knives, tobacco and other crud you always go to sea with.

Also the little ditty box for tools is a fine idea. Toss the tools and gimmicks in, and let 'er rain.

I'd also paint the foredeck and side decks, as well as the inboard bottom between chines, with Noskid paint, for the following reason:

Doubtless, after you have launched your gleaming yacht, you will don blue serge jacket, yachting cap and white flannels for a go at the yacht club's $4 steak.

As you leave the yacht club veranda for the deck, with the steak comfortably stowed and with your toothpick steeved at a fashionable angle, you will be the cynosure of all eyes.

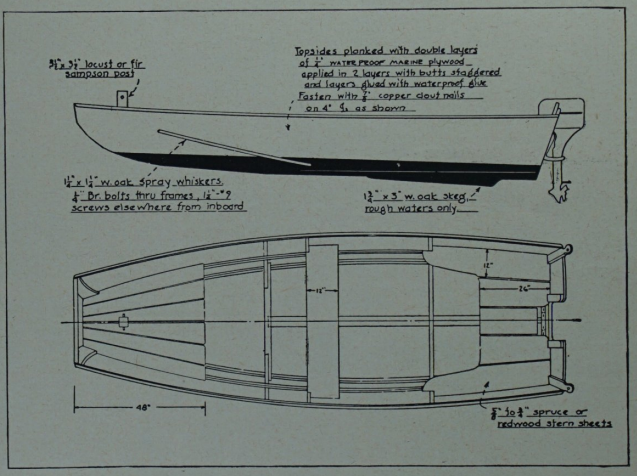
It were well, then, to have made certain that when you leap gracefully aboard that your foot is sure.

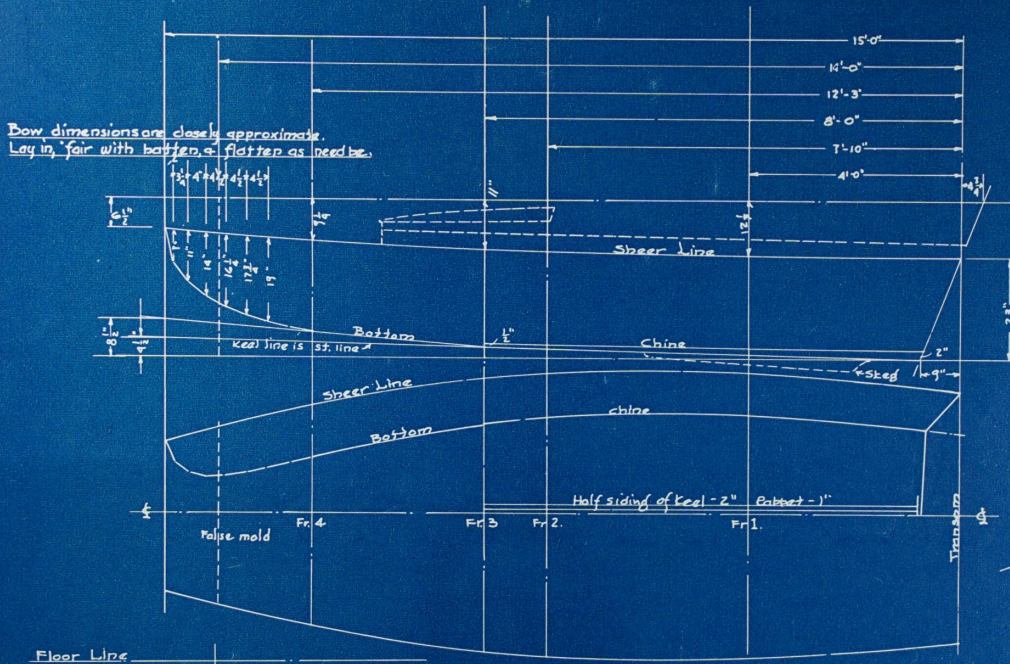
There is nothing except a scorpion that will make you peel your pants quicker, or squat you in a cool mudhole sooner, than a six-inch sliver of coaming in the starboard cheek of your own stern.

That shouldn't happen to a cynosure, so use Noskid and play it safe.

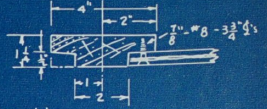
Wanigan will be recognized by old water rats from the head of the Mississippi to the Louisiana marshes as an exceptionally useful boat. The bateau boys of Quebec and the clammer on the West Coast will know what she is and what she'll do. In her, campers too will have a friend.

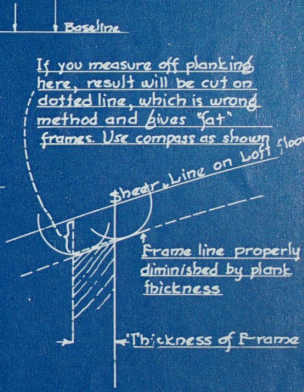
Large scale blueprints for this boat, taken from the original drawings, are available at $7.50 a set. They may be obtained by writing Weston Farmer, c/o Sports Afield, 950 Eighth Avenue, New York 19, New York.

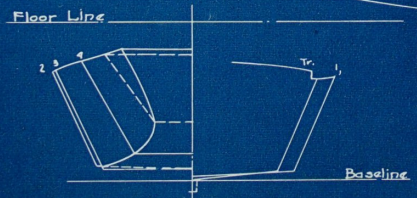




SECTION THRU KEEL





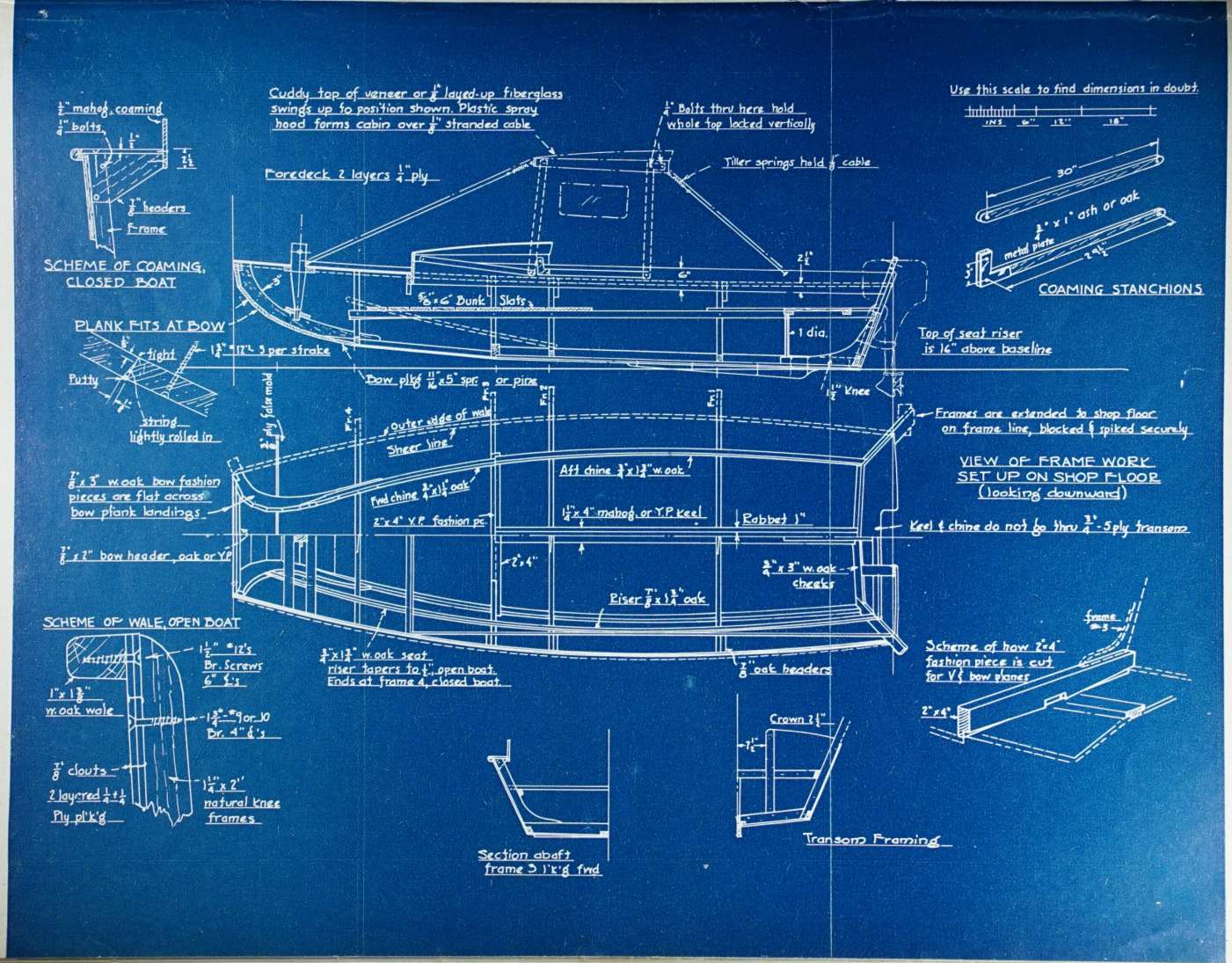


Forward bottom on Fr 3 is flat. Aft bottom has deadrise of ½" in rabbeted fashion piece

	Tran.	Fr. 1	Fr. 2	Fr. 3	Fr. 4	F. Mold	
Height thr. above Baseline	2"	2½"	3"	3 1/4" ±	5½" +	11¾"	Chine
	0"	— Sf. Line to			4½"	fwd. {	Keel
½ Brdth from ℄	27½"	31⅞"	31½"	30½"	24⅜"	19½"	Sheer
	19½"	22½"	21¾"	20"	12½"	8½"	Chine

All dimensions in inches

LINES, OFFSETS & BODY PLAN for "WANIGAN"


½" mahog. coaming
¼" bolts
1"
2½"
⅞" headers
Frame
SCHEME OF COAMING, CLOSED BOAT
Cuddy top of veneer or ⅛" layed-up fiberglass swings up to position shown. Plastic spray hood forms cabin over ⅜" stranded cable
¼" Bolts thru here hold whole top locked vertically
Tiller springs hold ⅜ cable
Foredeck 2 layers ¼" ply
5/8"x6" Bunk Slats
6"
2½"
1 dia.
PLANK FITS AT BOW
¼"
tight
1¾" *12's 3 per strake
Putty
string lightly rolled in
Bow plkg 11/16"x5" spr or pine
¾" ply fdge mold
Outer edge of wale
Sheer line
Aft chine ¾"x1¼" w. oak
Fwd chine ¾"x1¼" oak
2"x4" Y.P. fashion pc.
1½"x4" mahog. or Y.P. keel
Rabbet 1"
⅞"x2" bow header, oak or Y.P.
2'-4"
¾"x3" w. oak cheeks
Riser ⅞"x1¾" oak
¾"x1¾" w. oak seat riser tapers to ¼" open boat. Ends at frame 4, closed boat.
⅜" oak headers
½" Knee
Top of seat riser is 16" above baseline
Frames are extended to shop floor on frame line, blocked & spiked securely
VIEW OF FRAME WORK SET UP ON SHOP FLOOR (looking downward)
Keel & chine do not go thru ¾"-5 ply transom
⅞"x3" w. oak bow fashion pieces are flat across bow plank landings
Use this scale to find dimensions in doubt.
INS. 6" 12" 18"
30"
¾"x1" ash or oak
metal plate
2½"
COAMING STANCHIONS
SCHEME OF WALE, OPEN BOAT
1½" *12's Br. Screws 6" c.'s
1"x1⅜" w. oak wale
1¾" *9 or 10 Br. 4" c.'s
⅞" clouts
2 layered ¼"+¼" Ply pl'k'g
1½"x2" natural knee frames
Section abaft frame 3 l'k'g fwd
Crown 2½"
7½"
Transom Framing
frame no. 3
Scheme of how 2"x4" fashion piece is cut for V bow planes
2"x4"