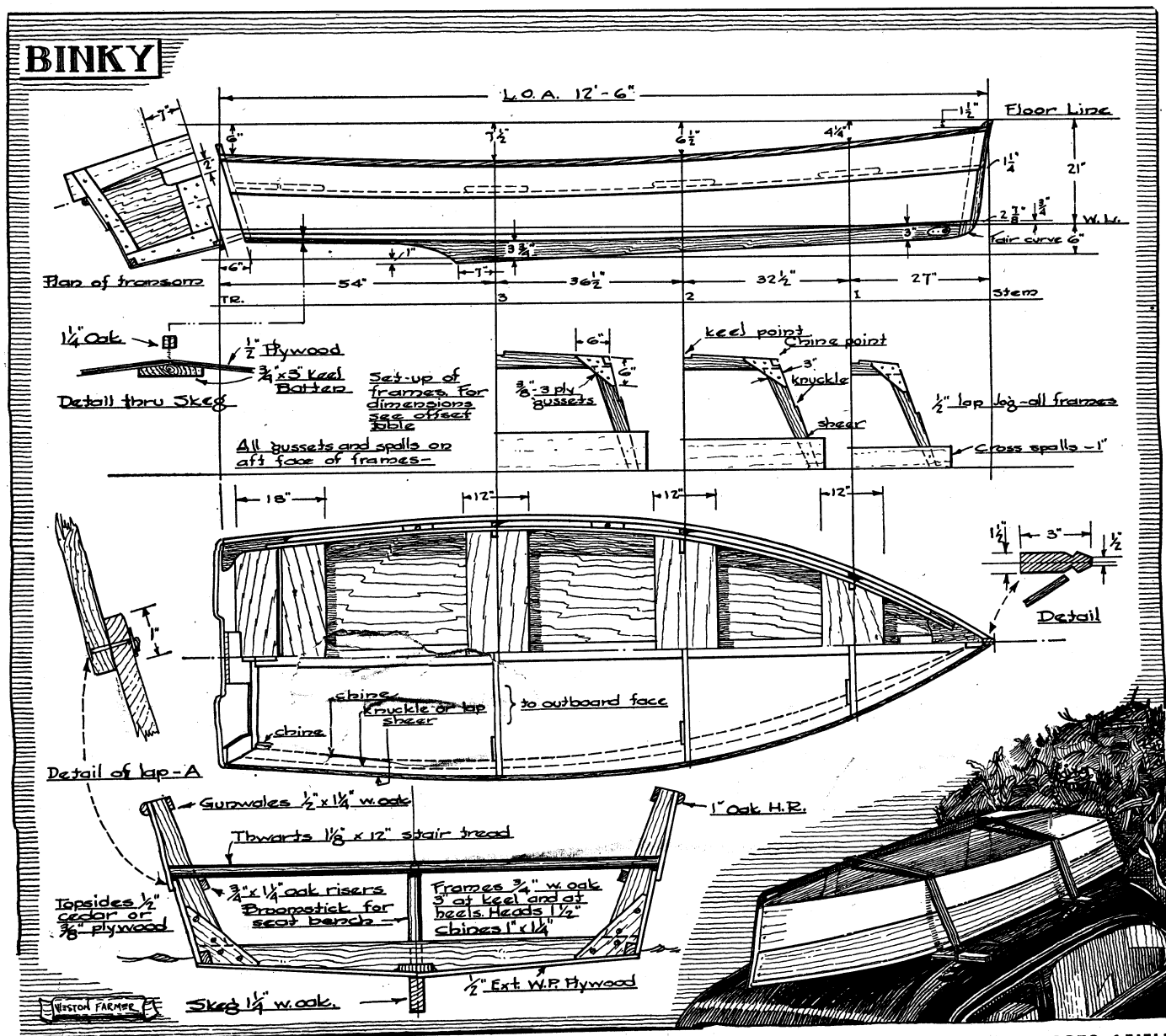


BINKY – an all-around tender

By WESTON FARMER

Added pleasure in gunning or fishing on your next cruise can be yours with this specially designed little craft. She's an excellent beginner's project

Below are the lines and measurements for the hull shape of Binky. The essential out-lines must be laid down full size and faired up before frames can be assembled. Note that the cross-spalls are as wide as the distance from shop floor to sheer line.



ANY NAVAL ARCHITECT will tell you that a good *small* boat is much harder to design than a good *big* boat. The reason is obvious. To be good, a small boat has to meet a greater variety of compromises. She will be used more ways for more reasons than will a larger vessel.

This fact has just been brought home to me. An 80-foot steel tug designed for a Canadian pulpwood outfit took less preliminary sketching time than Binky here. This will give you a clue to how much trouble it is to work out something *good* in the small boat line.

Now a dinghy is toughest of all small boats to design. She must be dry in a sea; she must be good under oars. She must be light to tote well. So that, if her parent ship is large enough, she can be hauled aboard and snugged down. Rowing boats do not as a rule tow well. A dinghy must do all these things, and be boss

of the situation if a kicker is used. Gunning and fishing and gunk-holing add much to the pleasure of using a larger boat. And the dink, like a good wife, makes a team of your whole outfit.

I think this Binky design answers the correct set of prayers. Outwardly she looks like a million other skiff models. Skiff plans appear like dust in the Milky Way. Flat skiffs won't tow well if they row well. If built of plywood they are rubbery unless lap-seamed.

This boat is flat enough to tow well, enough rocker to row well and is helped by the cutaway skeg. There is a little dead rise, which is magic but critical stuff. It works wonders for boat feel only if you know how to use it.

As shown in Fig. 2, flat-bottomed boats have no lateral plane to speak of, and they roll a blanket of water under them when towed. They slide

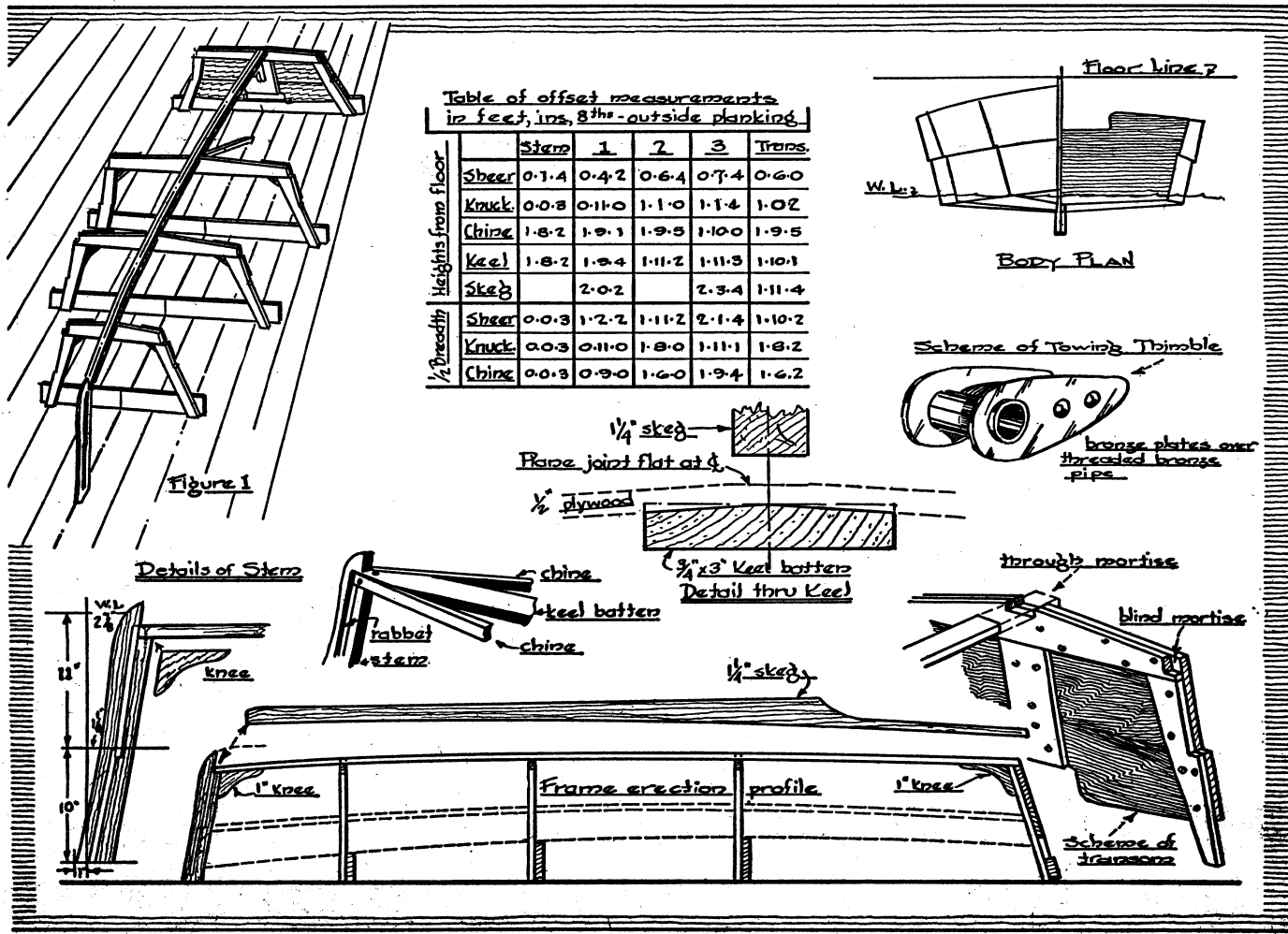
off and yaw, while the boat with dead rise *gets in the groove* and stays put.

A dinghy must have some trail—yet too much brings her to a yaw, especially when towed by the stem-head. But that's a wrong practice anyhow, and results in a yawed path. Binky is quite the cheese in all departments! She rows well; is big enough to be a real lifeboat in case of fire or foundering. You can place the four thwarts to allow one person, two persons, three, four, five, six or seven to be carried with the load balanced. This alone makes her different from seemingly similar craft.

Binky is light, and a car-top heave ho is easy. She has no bad traits, many virtues, and I am glad to recommend her as something any man or boy can build from materials obtainable almost everywhere.

She favors, of course, the small outboards—2 hp and under, being

When you have faired up the body plan, using the table of offsets for measurement, your floor drawing will look like the Body Plan at upper right. Frames are then set up according to the perspective sketch. Details clarify tow thimble, cutting of stem, keel.



especially good with the little malted-milk mixers like the Elto Cub. She planes with 4 hp and even as a speeder she is good. She is planked with $\frac{1}{2}$ " plywood on her bottom. The chine pieces are 1"x $1\frac{1}{4}$ " mahogany or oak—some wood which will swell, but will hold fastenings. Her frames are of $\frac{3}{4}$ " white oak, 3" deep over the keel batten, 3" molded at the heel and which taper to $1\frac{1}{2}$ " at the frame heads, or wales.

For the topsides I nominate $\frac{1}{2}$ " white cedar, with white pine second choice. And if you can't get sufficient widths of these, then use $\frac{3}{8}$ " plywood, lapped just as shown. Do not use one panel of plywood for the topsides. One-hunk topside panels usually give a "rubbery" boat, in this breed of cat.

Binky's keel batten is $\frac{3}{4}$ "x3" white oak, though I suppose mahogany or spruce would work quite as well. The frames are gusseted with $\frac{3}{8}$ " waterproof plywood, glued and screwed to the aft face of the frames. The seat or thwart risers are of oak, $\frac{3}{4}$ "x1 $\frac{1}{4}$ ". The wales are $\frac{1}{2}$ "x1 $\frac{1}{4}$ " white oak. The transom is $\frac{3}{4}$ " white cedar preferably, but mahogany can be used, though it's heavier.

Her stem is $1\frac{1}{2}$ "x3" white oak. It needs to be, because the rabbet and fairing to a $\frac{1}{2}$ " stem face eats out a lot of wood. The stem is "fortified" by a 1" oak knee, and a $1\frac{1}{4}$ " mahogany, birch or apple breast-hook. A 1" knee is used at the transom.

Thwarts are $1\frac{1}{8}$ "x12", of some light wood, thick for stiffness; 1" boards here will spring badly with two people on a thwart. I have used and recommended a broomstick bench under the thwart, doweled into the seat. A great stiffener—eliminates panting.

The oak skeg is cut away as shown. Done this way, it aids rowing maneuverability, and ditto under power. This member is sided $1\frac{1}{4}$ ". Might be a good hunch to round the piece at the forefoot, taking away the square edges, and thus avoiding shredding when beaching, and giving a less wet entrance when towing.

Those are the materials we use for Binky. Now for the building method.

First, of course, you lay down the lines full size, using the measurements given in the table of offsets. These offsets read in feet, inches and eighths. Errors creep in to the most careful scaling of any drawing, especially those done to small scale. Sometimes a whole column of dimensions gets under the wrong heading. Fair the boat full size, and work from the full-size layout, thus discovering errors in advance.

When you get the body plan drawn up, "diminish" the frame lines by $\frac{1}{2}$ " on the bottom to allow for the thickness of bottom planking. Diminish the topside frames by the thickness of that planking, and allow for the knuckle, or lap jog.

Glue and screw on the gussets on

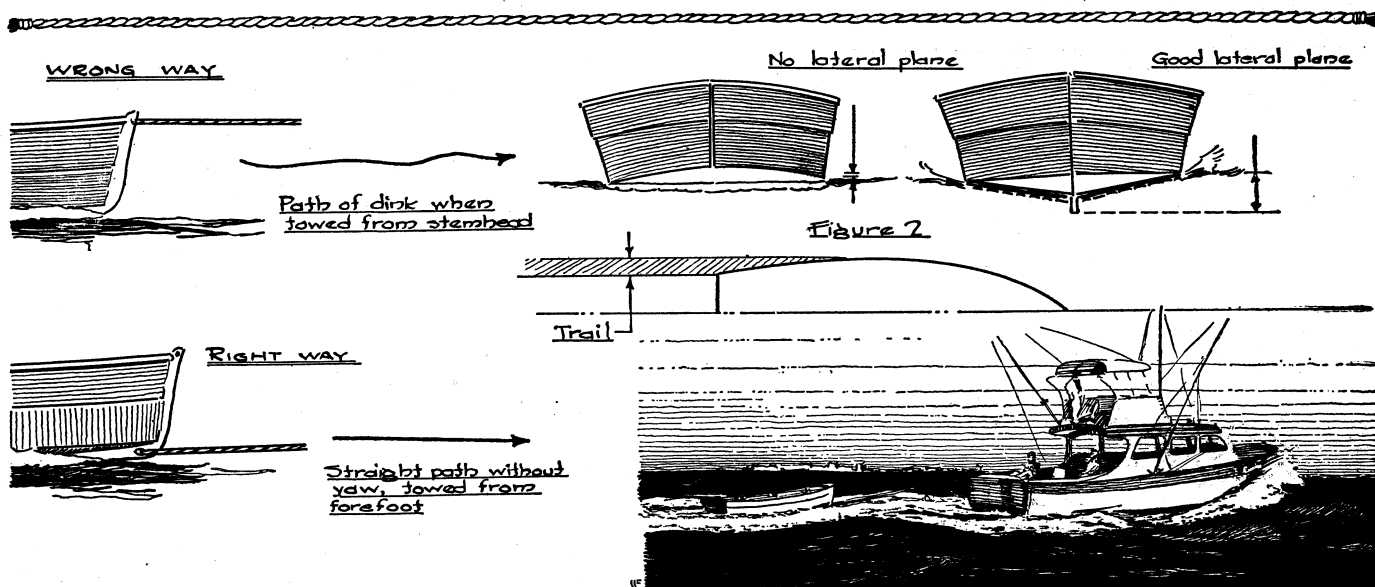
the aft face of the frames, and tie the head ends of the frames together by cross-spalls fastened temporarily with screws. Since Binky is such a smallie, for cross-spalls use scab lumber of sufficient width to meet the distance between floor line and sheer. This is handiest—the spalls will extend from the frames to form plank edge landings when streaming the strakes, and the spalls can be toenailed to the shop floor. If you build in a basement or garage on concrete, lay two planks on the flat for a floor. When set up, squared and braced—plumbed and horned as boatbuilders term it—your frame will look like Fig. 1.

Next the $\frac{3}{4}$ "x3" keel batten is socketed on the stem, tapered to accommodate the impingement of the chine pieces, and is bent for its length into the socket in the transom. This is a *through* mortise, and the *only* one in the transom. The chines are blind-mortised.

Now fasten the chines in, using appropriate sized screws—about 2" No. 12th on each frame, and $1\frac{1}{4}$ " into the stem. You are now ready to plank the topsides.

The broad topside strake from chine to knuckle is spiled for shape. Use a stiff cardboard or thin plywood template for this. It will give you the true expanded shape of the plank; $\frac{1}{2}$ -inch cedar boards are best for topside planking. Mahogany will also be good. If you must use plywood, use $\frac{3}{8}$ " exterior *waterproof*

A dinghy should not be towed from the stem head. The right way is to tow from the forefoot. This takes the yaw out of towing. A boat with adequate dead rise has more lateral plane than a flattie and will follow better. Figure 2 explains meaning of "trail".





type, and use care in lapping the seam. Don't put plywood on in one flat on Binky's topsides: the one-hunker will pant like an oilcan. Lapped seam is needed for stiffness, strength. Use $1\frac{1}{8}$ " copper clout nails about $1\frac{1}{4}$ " centers for fastening the top strake to the overlapped lower plank.

Copper rivets over burrs are even better if you can get them. Use No. 14 rivets and nip off excess end material with snub-nosed nippers before heading rivets over.

No seam sealer, gunk, or bedding compound has to be used on ordinary wood lapped strakes. Professionals don't—they know that any piece of wood nicely fayed against another will use the wood's natural tendency to gleet up and become tight when wet. Such a lapped joint, on cedar, mahogany or pine, can be repeatedly soaked tight, and is the chief blessing of a lap-straked hull. A gunked seam or a painted one will sooner or later find the compound *perished*, hence hard and cracked, and then virtually impossible to keep tight or repair.

Fasten the strakes to the stem and chines and transom with 1" No. 8 fh brass or galvanized screws on 3" centers along the chines, half that spacing at stem and transom. Now you are ready to put on the bottom.

This is a piece of 4'x12', $\frac{1}{2}$ " exterior type *waterproof* fir plywood. Saw the panel into two equal halves, 2'x12', and lay them over the bottom, centered along the keel line. Lay a batten about 1" wide over the seam at the centerline and scribe both sides of the batten. Remove, saw to line, and trim so that the panel edges mate nicely in a seam along the keel center.

Now tack the panels down temporarily and scribe along the hull edge for the shape. Saw this out with a rip saw or on a band saw, leaving plenty of stock for planing to a

neat joined finish at the chine edge. This panel, because it is plywood, which *doesn't* swell up, should be bedded with Kuhl's bedding compo, or other good bed such as Dolphin-ite. This bottom piece, being outboard and screwed in place, can be easily removed for rebedding and repair.

At this stage, sand the exterior of the hull well, and prime with two coats of Firzite, which you can get at lumberyards. This is a sealer and a grain-hider, eliminating grain showing through paint. When the hull has been primed, saw through the transom frames at the sheer, also at No. 1 and No. 2, leaving the midship spall alone. Remove spall toenails, then right the hull and install the wales, risers, $1\frac{1}{4}$ " breasthook and transom knees.

Preferably, use redwood or spruce for stern sheets and thwarts. These should be $1\frac{1}{2}$ " thick. A good dodge I have used is to make thwarts of fir stair tread. But this stuff is very heavy, and should be run through the planer to $1\frac{1}{16}$ " thickness. Don't forget the broomstick panting posts. Next get out the $1\frac{1}{4}$ " white oak skeg.

Cut this away aft exactly as shown, and she'll both row well and tow well for you.

Fasten in the rowlocks at points shown, boring for them through the oak you will use. Fasten the oak rowlock blocks through wale and half round molding with 2" No. 12 screws. Galvanized rowlock sockets, and *open* (not pinned) oarlocks should be used on 7' leathered spruce oars. Avoid the oarlocks with fixed pins through them. Reason: you cannot choke or feather your oars, essential for safety in a wind.

Install the towing thimble in the skeg near the forefoot. Now paint the final coat, and you've got an unusually versatile and competent dinghy.

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