



SEA-BOATS, OARS AND SAILS

by
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*with thirteen pages of drawings by the author,
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and design drawings by François Vivier*

With a Foreword by SAM LLEWELLYN



is made the same length as the foot of the unreefed sail, so that the reef cringle comes in the same place as the clew did, but of course the sheet has to be shifted to the cringle to set the sail properly, as the clew now comes 2 or 3 feet too far aft. However, in an emergency one could carry on without shifting the sheet or tying the points, because nearly half the sail would be down in the boat, where it could hardly capsize her. To make the device work almost automatically two extra items of gear are wanted: an upper halyard spliced to a thimble which slides on a wire jackstay stretched from the slings, the point where the main halyard is bent on, to the peak of the yard. It is belayed at such a length that when the peak is hanging from it and the main halyard has been let go the heel of the yard is at the level of the tack of the whole sail. At this point there must be a block through which a heel-rope on the yard is rove to hold it in to the mast. Merely letting go the main halyard and hauling in the heel-rope should make it safe for the helmsman to leave the ship to look after herself while he reefs her properly. But a feature of this rig is the ease with which a small lug with a shorter yard can be substituted for the big one instead of reefing; not a great extravagance, for the big sail and its yard would be of lighter stuff and therefore more efficient in light winds, and it would need no reef cringles and points, linings, and so on.

Fig. IIIA shows roughly the Loch Fyne skiff, general in the West of Scotland; but the skiff, having a sharp stern, has a shorter foot to her sail. The one I have drawn could not be sheeted properly except to the lee quarter of a transom stern. In a small boat there is no need to work two main sheets, as in the skiff. A single sheet is bent to the clew of the sail and leads through a block travelling on a horse, an iron bar over the transom, above the tiller, to the helmsman's hand (Fig. IIA). It is no more trouble than the sheet of a boom sail, which is bent to a traveller on the horse and leads through a block on the boom to his hand, except that it prevents passengers from sitting in the stern. If the leach of the sail is fairly upright the clew will not menace people's heads; anyway there is no need for a block on it. Some purchase may be wanted to sheet a sail of 120 square feet, but if there is a big brass thimble in the clew cringle that will do for a block. No one who has sailed without a boom wants to be dependent on one again, but a temporary one is useful in a light following wind; the boathook can serve for it. If the standing part of the sheet is made fast to the lead block, unbend it—you will not want the



SUNDRY FITTINGS

FITTINGS OF VARIOUS KINDS ARE NEEDED to finish the boat as it comes off the building stocks, and to equip it for its particular work. All boats must have an attachment for the painter and mooring rope; this, in an open boat, is a large ring-bolt inside the stem, and the rope passes over the gunwale, where, with nothing to prevent it from shifting sideways, it is exposed to chafe. The mooring rope is easily protected; make fast to the ring, and put a turn over the end of the stem, which generally stands up an inch or two above the gunwale, taking care that the part from the ring to the stem-head, where it makes the upper part of the turn, is taut; and there can be no shifting, and so no chafe. But a painter made fast to a larger vessel, or to a quay wall, might be pulled up off the stem-head, so if the boat is habitually tied up in this way, join it to the inside ring-bolt by a bit of chain just long enough to go over the gunwale. Of course the breast-hook and the gunwale must be protected by a strip of metal or stout leather, or the chain will cut them. It is very convenient to keep two painters always bent on, a stout one about 6 feet long with a large hook on the end, and a lighter one whose length will be dictated by the kind of place the boat is used in; if there is a big range of tide it should be very long. It is not the same thing to carry a spare long rope in the boat; that would probably be missing when most wanted. The long painter can be quite light; the boat will never break it, for its elasticity saves it from the shocks that break a short rope.

In a half-decked boat, where the stem-head does not usually make a convenient bollard, the mooring line passes through a fair-lead on the bow and is made fast to a cleat screwed to the deck some way abaft that, or, if as is often the case the cleat is not big enough -to take a decent-sized rope, to the mast. The rope cannot shift sideways in the fairlead, but the inboard part of it can stretch, and so allow chafe there; the rope should be parcelled in the way of the fair-lead with a strip of canvas wound round it and lashed firmly. This precaution will more often than not be forgotten, so it is better every way to have a length of chain reaching outside the fair-lead, which, being of metal, cannot be damaged by it, and bend

the line to that. In the West Country they have a large hook on the end of the chain, and drop an eye on the mooring rope over that, thus keeping all the possibly muddy rope outboard (Fig. XIIA).

If the boat is to be towed at sea, or if she is large and heavy and has to be hauled up a beach with a tackle, you cannot pull her with her own painter, for you want the point of attachment as low down as possible. The best attachment is made to a thwartships hole in the stem or the fore end of the keel. You can tow from a large shackle with its pin through the hole; if the pin is screwed in the shackle it will work loose unless it has a lock-nut. It will also work loose in the hole, and cut through the wood unless that is protected; the best plan is to put two side plates over the scarf between stem and keel, well fastened to both, and drill the hole for the pin through them.

In most open boats the mast passes through a hole in a thwart and is stepped in a shallow box fastened either to a false kelson, the longitudinal plank serving to hold down the floor-boards, or, because the false kelson is movable and so may be accidentally displaced, to the keel or hog-stave. To step it, you have to lift it vertically above the thwart, and then lower it vertically, no easy jobs if the mast is a long one and the boat a bit lively. If she gives a lurch after the mast is entered in the hole it is liable to split the thwart, and even when its heel is right down it may have missed the step, which is invisible to the operator. A mast which has to be stepped and lowered at sea, as should be possible in all open boats, should be clamped in a half-round notch cut in the edge of the thwart, not passed through it.

A mast is naturally lowered and boated with its head aft, so it is clamped to the after side of the thwart. You have only to enter the heel in the step and lift the masthead, and the higher it is raised the easier the lift becomes. But till it is raised nearly upright the heel may slip out of a shallow step, so the fore side of the step must be made high enough to butt it against, or better, built up as a tabernacle or shallow trough fastened to the under side of the thwart and helping to support that. Or the mast may be clamped to the fore side of the thwart with the neat device used by the whale-boats in the Azores (Fig. VIIA). The clamp is a complete band hinged to turn up on the thwart, and the mast has a collar to prevent its passing too far through the clamp. Its heel is guided by a trough, the bottom of which is raised a couple of inches above the bottom of the step. As the mast comes to-



is that the turns should be packed into a solid mass which is almost imperishable and, in the case of a serving, quite watertight. Only soft cordage will pack like that; yacht marline, lacking the continuous contact, is liable to work loose. Even if it is drowned in varnish, that may crack and let the water into a serving, and if there is any play in a seizing the parts will chafe and soon break. If you cannot get tarred roping twine or good small tarred spunyarn try this way of making a serving with untarred stuff. Soak your parcelling—a strip of calico wound spirally round the wire—in Stockholm tar before you put it on; it will stick without any need to marl it down. Now put on the serving as tight as you can—you can't break the stuff—and if you are not using a serving board rub it down as you go with your finger or a bit of wood; the tar will be squeezed into the twine and impregnate it thoroughly. It is a messy job, but the result is neat and everlasting.

When things get adrift it is usually because a clip-hook has shaken loose, a pin dropped out of a shackle, or a rope slipped off a cleat to which it was belayed. The clip-hook is easily dealt with. Put an indiarubber ring, as tight as you can get it on, round the necks of the hooks, and you can't lose or forget it, as you might a mousing. Where possible use clip-hooks rather than shackles; I have twice lost sails through shackles breaking; never from a clip-hook. The pins of shackles come unscrewed unless they are wired in, and it is too easy to drop the pin or the shackle itself overboard.

All the shackles used in boats have pins that screw in with an eye in the end to turn them with the point of a marling-spike; the eye is often so small that the point of the spike won't enter, or breaks off if the screw is a bit tight; one ought to carry a small footprint spanner in one's pocket rather than a marling-spike. For a shackle which has to be shifted often, it might be worth while to adopt a pattern (Fig. IXB) in which the pin is not screwed but has a key-end which passes through a key-way and is locked by a half-turn, the key being held in that position by being drawn into a shallow slot by a spring. But small springs are perishable and not easy to replace, so I prefer to hold the key in its slot by screwing down a wing-nut against the eye of the shackle; the nut can be screwed tight enough with the finger and thumb, and a turn and a half or two turns back give the key enough clearance to allow the pin to rotate. As the key-way is cut only half-way through the eye next the nut, the key cannot pass through it and allow the pin to drop out.





HINGED MAST CLAMP

CENTREBOARDS

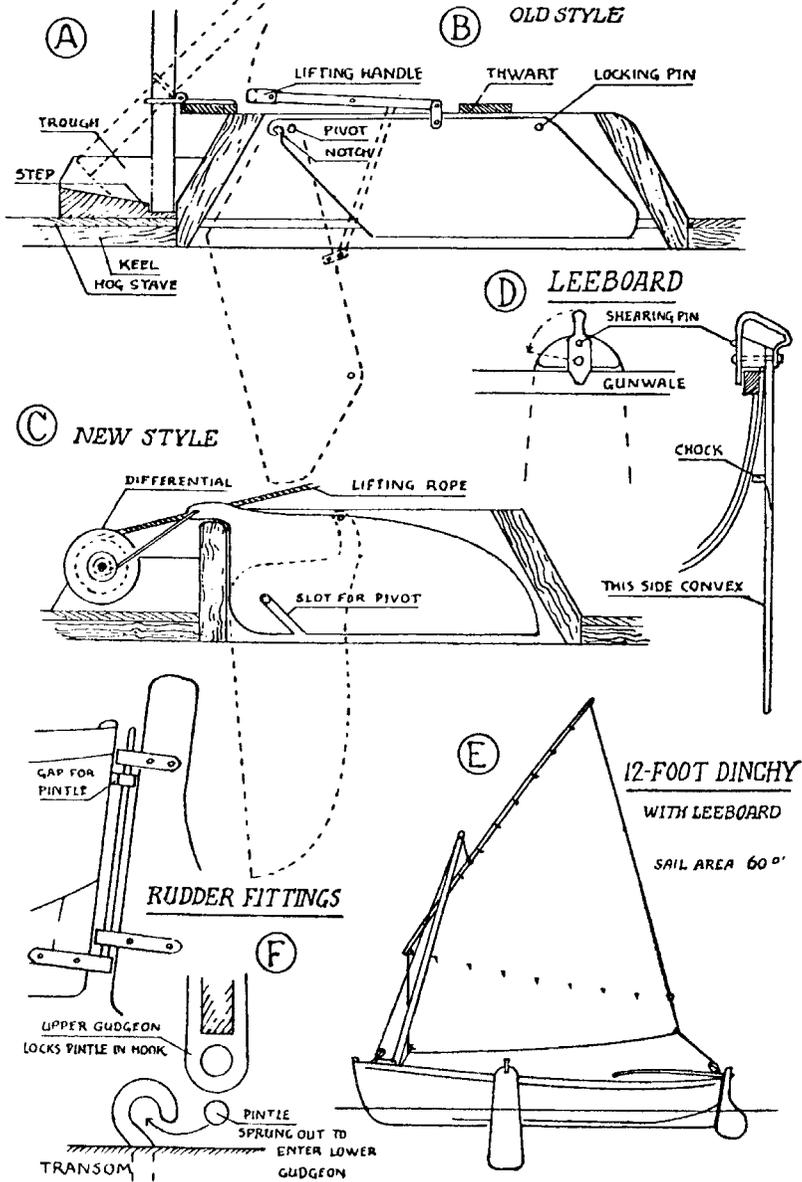


Fig. VII