

victory already beaming in his eyes. No sounds were heard but the thud of hoofs on the turf and the wheezing of the old bay mare as she tore down the home-stretch to the wire.

What happened next he hardly knew. His eyes seemed bursting from their sockets. The wire was all at once terribly near and still there were three inches to gain. The faces of the people were one big blur, and only the shouting of his name and that of his horse told Bemis that he had won.

The hot blood of the mare by this time thoroughly fired by the contest bade fair to carry her around the track a second time, just for luck; but somewhere, just how far beyond the finish Bemis never knew, he finally managed to pull up and turn. Yells and shouts still rang in his ears, but he sat in his

saddle like a man in a dream till he felt a hearty slap on his knee and the trainer's voice sounded in his ears—"It was the old mare that won the race, my boy. If you'd forgot yourself at the finish again it might have been a close thing the other way." This uncomplimentary speech brought Bemis's wandering faculties back and most likely prevented him doing something supremely ridiculous. He got down, and when he glanced toward the stand, hats and kerchiefs were still waving and another storm of cheers greeted him winner of the cup, and Kismet the idol of the day.

As he passed the drags a tall, graceful girl stood up and waved a silken scarf high above the many-tinted flutter of parasol and kerchief. After all it is not so strange that a girl should think better of a man because he wins.

COMBINATION ROWING AND SAILING BOATS.

WITH HINTS AS TO RIG AND EQUIPMENT.*

BY A. J. KENEALY.

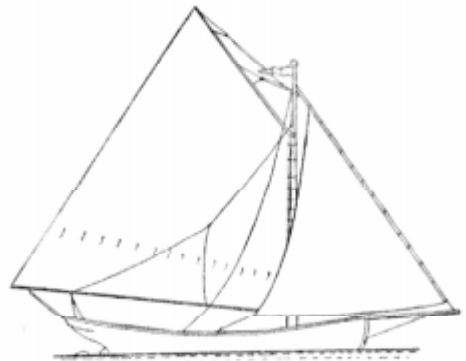


Whip purchase and traveler. Fig. 1.

A BOAT intended for both rowing and sailing should be partly decked, and have as high a coaming as possible round the cockpit. A folding centerboard should be fitted as in Fig. 10, so as to avoid the awkwardness of a trunk, which in a small craft takes up too much room. Outside ballast is not necessary; a few bags of sand will do instead. An open boat under sail is dangerous except in the hands of a skilled boatman. In a scrub race the helmsman cracks on until the lee gunwale is almost on a level with the water. He may go along like this for some time, but if the water is rough, ten to one a sea will sooner or later come in over the lee bow, and the weight of water to leeward may cause the boat to capsize before the sheet can be let go and the helm put hard down to bring her head to wind. This in itself is not agreeable; and failing to right the boat one may be compelled to cling to the keel or rail until relief comes, or till he gets too tired to hang on any longer.

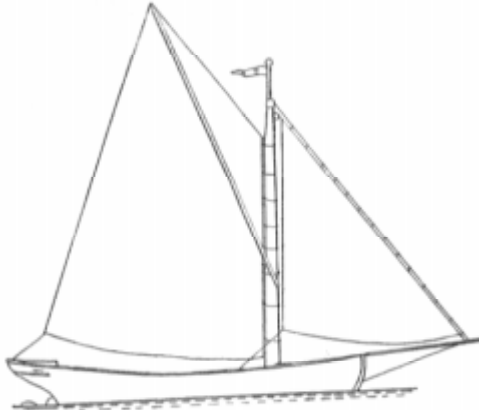
The excellent sport of sailing in a stiff breeze is obtained at its best only in a partly decked boat. The half-decked craft may also be made into a life-boat with the aid of water-tight boxes of tin or zinc. The cockpit should be made as narrow as is compatible with comfort.

The combination rowing and sailing boat should have as little gear as possible. Sheets and halyards should always be kept clear for running and never be allowed to get foul. If you are so unlucky or so imprudent as to meet with a capsized, keep clear of the ropes, for a



Jib and Mainsail Rig. Fig. 2.

* A chapter from Capt. Kenealy's book, "Fair Weather and Foul," to be published by OUTING.



Sprit Rig. Fig. 3.

turn of one round the leg may send you to Davy Jones's locker.

In writing of rigs suitable for small craft I shall not weary my readers with descriptions of sails that are not at all adapted for practical use in Northern waters. The amateur desirous of becoming acquainted with the rig of boats suitable for Bermuda waters, the Norfolk Broads, the Nile, or the inland lakes of Timbuctoo must look elsewhere. Nevertheless the amateur may rest confident that I give practical instructions for the best possible rigs, and he may adopt any one of them after due consideration of the comments on each variety without any fear of future regret.

The mast of the combination sailing and rowing boat which is shown in Fig. 2, should be so stepped that it can be taken down at a moment's notice. It should not be stepped into the keelson through a hole in the thwart, but should be fitted with a strong iron clamp and pin screwed to the after part of the thwart, so that it may be unshipped in a hurry. The mast should be light and strong. The sheave-hole in the head should be fitted with a galvanized-iron or yellow-metal sheave, and should be sufficiently large for the halyards to travel freely when the rope is swollen with water. A block may be fitted to the mast-head for the jib halyards. The boat should be provided with a galvanized-iron horse for the lower block of the mainsheet to travel on. This is a great convenience in beating to windward as the boom will go over by itself without the aid of the helmsman. The sail also sets better with the aid of a horse to keep the boom down.

The jib sheets and all halyards should lead aft within easy reach of the helmsman so that he may be able to handle them without letting go the tiller. The cushions of the stern sheets should be stuffed with cork shavings such as grapes come packed in from Spain. They should have life lines sewed to them so that in case of need they may be used as life-preservers,

The boat should be equipped with three oars (as one may be broken), a boat-hook and a baler; and the plug in the bottom should be secured to the boat by a lanyard and screw-eye. A tiller should be used for steering when sailing and not a yoke and lines.

Remember that you must luff when the first breath of the squall strikes the boat, for if way is lost and the boat is hove down on her beam ends, lee helm ceases to possess its virtue and the boat may capsize. This is a sound and wise axiom and one that a beginner should impress rigidly on his mind. Never allow skylarking in a boat. Never attempt to climb the mast of an open boat, as it is an operation fraught with danger. Rather unstep the mast for any repairs that may be necessary. Never stand on the thwarts of a small boat when under way.

If women and children are on board never gybe the boom over. Many accidents have happened through the neglect of this precaution. No matter how expert a boat-sailer you may be, never take women and children out in a boat with only yourself to handle her. Always take care that you have with you either a skilled professional hand or an



Leg-of-mutton Rig. Fig. 4.

amateur who knows the ropes, can take his trick at the tiller and does not lose his head in a squall or other emergency of sea, lake, sound or river. In default of being able to command the services of such a man, leave the women and children ashore and postpone the excursion heedless of the tears and entreaties of your best girl and the black looks of your prospective mother-in-law. A lovers' quarrel is easily made up, but a capsized boat may mean loss of life and agonies of regret and self-reproach.

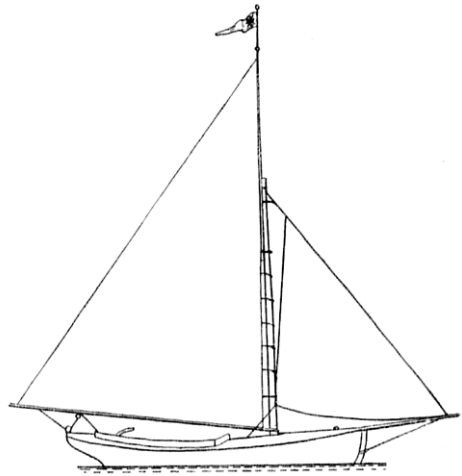
I was once persuaded against my better judgment to take out a party of ladies for a sail in a jib-and-mainsail boat. We put out from a dock at Perth-Amboy in the afternoon, with a cloudless sky and a soft, sweet summer zephyr blowing. There was one other of my sex aboard and he told me he perfectly understood the handling of a boat. He wore a yachting suit and cocked his eye aloft in a knowing and nautical manner that deceived even an old stager like myself. A huge black bank of clouds arose in the northwest presaging the speedy approach of a savage thunder-squall. I told my nautical-looking shipmate to lower the jib, but he did not know how to find the halyards, and he was equally ignorant of the whereabouts of the sheet. I have the tiller to one of the girls to hold, hauled down the jib, made it fast, lowered the mainsail and furled it as snugly as I could and then let go the anchor which, luckily, hadn't been left ashore. All this time my nautical-looking chum was star-gazing. As a matter of fact he knew no more about a boat than a bull knows of trigonometry. His specialty, I was afterwards informed, was measuring off tape by the yard and ogling his customers. I had to do a good deal of hustling to get the craft snug for the squall and to stow away my girl guests in the shelter of the little half-deck forward, where they fitted as tight as sardines in a box.

When the squall struck us it was a hummer and no mistake. I veered out all the cable there was and she rode to it quite well. There came a deluge of rain with the blast, and the boat was soon nearly half full. The girls screamed and prayed. The counter-jumper looked pale about the gills and being too scared to bail flopped on his marrow-bones. Now praying on shipboard is not to be scoffed at, but it should be delayed until

man has exhausted every possible means of saving the ship. I had to do all the bailing myself and when the squall had blown itself out I had to set the sails and hoist the anchor without any aid from the linen-drafter.

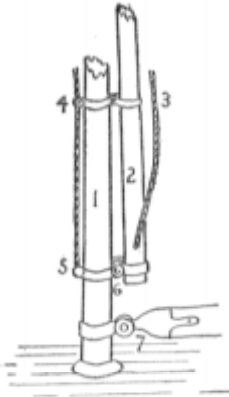
That is one reason why I don't go sailing single-handed any more with a boat-load of girls. Do you blame me, ship mates? They are as likely to get cranky as the boat herself, and one female at a time is all the average man can keep on an even keel. Of course I know many girls who can give me points and beat me easily in yachting and all that appertains thereto; but fair ones of that sort are not so plentiful as they might be.

It should be remembered that these small rowing and sailing boats are not



Sliding Gunter Rig. Fig. 5.

intended for a spin round Sandy Hook lightship. They are for smooth water and in their place are capable of affording their owners an immense amount of wholesome enjoyment. On a pinch they will stand a hard tussle with wind and wave, but it is never wise to tempt Providence. I once knew an Irishman who often declared that he was so favored by fortune that he could fall off a dock into the water and not get wet, but the average man is not built that way. An ambitious amateur may well begin his career on the water with one of these interesting little toys I have described, and even if he aspires to become the owner of a stouter and more seaworthy craft in which to essay adventurous cruises of great emprise, he will learn much that is of value from her.



Detail of Sliding Gunter
Rig. Fig. 6.

With these cautionary remarks I will proceed to describe the rigs which in my judgment are suitable for boats measuring from twelve to seventeen feet over all.

The leg-of-mutton rig, whether combined with a jib or not, is the simplest and safest known, for there is no weight aloft such as is inevitable with a gaff.

It is a sail exactly adapted to the requirements of a learner. The most nervous mother need not be alarmed if her boy goes sailing in a boat equipped with this rig. The sail is hoisted by a single halyard bent to the cringle at the head of the sail and rove through either a sheave or a block at the masthead. Sometimes the luff is laced to the mast, but it is better that it should be seized to hoops, as shown in Fig. 4. If a boom is used a larger sail can be carried, but it should be only a light spar and the foot of the sail should be laced to it. The boom may be fitted with a topping lift and the sheet be rove as shown in the illustration. In a small open boat no stays are necessary for the mast, but the jib halyards should be belayed to a cleat on one gunwale of the boat and the main halyards on the other, so as to afford support to the mast.

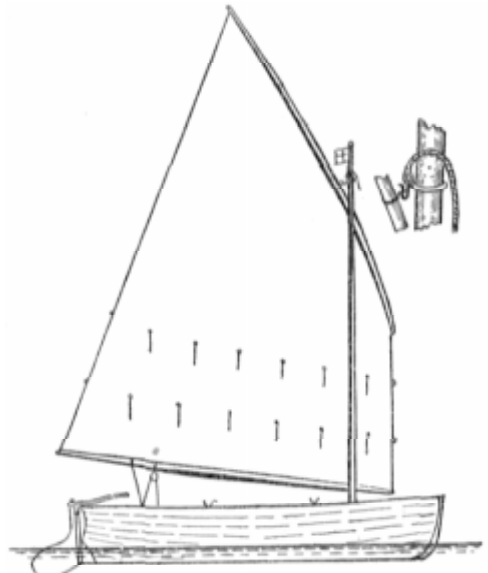
The jib and leg-of-mutton sail is a deservedly popular rig. A short bowsprit may be fitted to a boat and secured to an eyebolt in the stem by a wire bobstay. A wire forestay may be set up to the bowsprit end and a jib may be bent to iron hanks on it and hoisted by a single halyard. Or it may be set flying on its own luff, whichever the boat owner prefers.

The advantages of the cat rig (Fig. 9) for general handiness have been often explained. I should advise that the sail be hoisted by both throat and peak halyards and not by a single halyard as is sometimes the case. It is often most convenient to be able to drop the peak, when gybing, for instance, or when struck by a squall. A single topping lift should be fitted with an eye

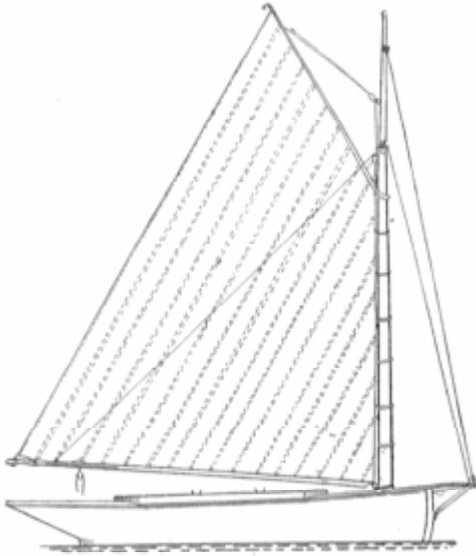
splice to the end of the boom and rove through a block at the masthead and belayed to a cleat on the mast. The main sheet should travel on an iron horse.

The balance lug, which is illustrated in Fig. 8, is quite a popular rig, and it has much in its favor. The sail is laced to a yard and boom and is hoisted by a single halyard rove through a sheave-hole in the masthead and spliced to the eye of the hook of a galvanized-iron traveler, to which a strop on the yard is hooked, as shown in the illustration. On the other end of the halyard a single block is turned in, through which a rope is rove, the standing part of which is made fast to an eyebolt at the foot of the mast and the hauling part rove through a block and led aft within easy reach of the helmsman. The tack should be made fast to the boom and set up to the mast thwart after being passed round the mast. The main sheet should work on a galvanized-iron horse. This rig is quite handy and a boat so equipped is smart in stays.

The sliding gunter rig, which is shown in Fig. 5, has this much to recommend it: it is easily set if rigged as shown in the illustration and it can quickly be reefed. It will be seen that the mast is in two pieces, the topmast sliding up and down the lower mast on two wrought-iron rings or travelers. The halyards are sometimes made fast to the lower



Balance Lug Rig. Fig. 8. Showing Traveler and Halyards.

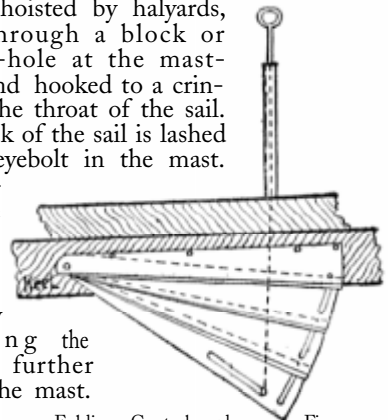


Cat Rig. Fig. 9.

traveler and sometimes to the upper. They reeve through a sheave-hole in the lower masthead and may be set up with a single whip purchase. The lower mast may be supported with a single wire shroud on each side and, if the double headrig is carried, with a wire stay to the stem head. The sail should be laced to the topmast and secured to the lower mast by hoops or iron rings leathered. These should be large enough to slide easily up and down the mast, which should be kept well greased. The topmast should be so rigged that the upper iron can be unclamped and the topmast lowered down so as to permit the sail to be stowed like a gaff-sail along the boom. With the sail thus furled the boat will ride much easier in a breeze or a seaway. In Fig. 6 the working of the rig is shown: 1 is the lower mast, 2 the topmast, 3 the halyards, 4 the upper ring, or traveler, with a clamp and pin to permit the lowering of the topmast, 5 the lower ring or traveler, which is fitted with a hinge at 6; 7 is the gooseneck of the boom to which the foot of the sail is laced. Reefing is simple. Lower away on the halyards, make fast the cringle on the luff of the sail, at whatever reef band is desired, to the gooseneck of the boom. Haul out the corresponding reef earing, make it fast, tie your reef points and hoist up the sail again by the halyards. A top ping lift is necessary.

The spritsail is not often seen in these waters, but it is a good sail for a small boat. I warn the beginner, however, against its use in a craft of any pretensions to size, for he will find the heavy sprit much more difficult to handle than a gaff. A spritsail is similar in shape to the mainsail of a cutter, with the peak higher and the foot shorter, as in Fig. 3. The sprit is a spar which crosses the sail diagonally from luff to peak. It is thick in the middle, and each end is tapered. The upper end fits into a cringle or eye in the peak of the sail and the lower end into a snotter on the mast. The sprit stretches the sail quite flat and thus a boat is able to point well to windward. The snotter is a piece of stout rope having an eye in each end, one being passed round the mast and rove through the eye in the other end, the heel of the sprit fitting in the remaining eye. If the snotter carries away, the heel of the sprit may be forced by its own weight through the bottom of the boat; accordingly, as it has to stand considerable strain, it should be made of stout stuff. To set the sail, hoist it up by the halyards, slip the upper end of the sprit into the cringle in the peak, push it up as high as you can and insert the heel into the snotter; then trim the sheet. In large boats the snotter is made fast to an iron traveler which is hoisted by a whip purchase as shown in Figs. 1 and 3.

The sprit rig cannot be said to be pretty, and when the sail is large it is difficult to reef it. I should not counsel its use except in a boat intended for both rowing and sailing, where the sail would be so small as to be easily muzzled in case of a squall. The spritsail is hoisted by halyards, rove through a block or sheave-hole at the masthead and hooked to a cringle at the throat of the sail. The tack of the sail is lashed to an eyebolt in the mast. In reefing the sprit must be lowered by shifting the snotter further down the mast.



Folding Centerboard.

Fig. 10.