

Scribners monthly.

[New York : Scribner & Co., 1871-1881]

<https://hdl.handle.net/2027/coo.31924079637470>

HathiTrust



www.hathitrust.org

Public Domain

http://www.hathitrust.org/access_use#pd

We have determined this work to be in the public domain, meaning that it is not subject to copyright. Users are free to copy, use, and redistribute the work in part or in whole. It is possible that current copyright holders, heirs or the estate of the authors of individual portions of the work, such as illustrations or photographs, assert copyrights over these portions. Depending on the nature of subsequent use that is made, additional rights may need to be obtained independently of anything we can address.

HOW TO BUILD AN ICE-YACHT.*

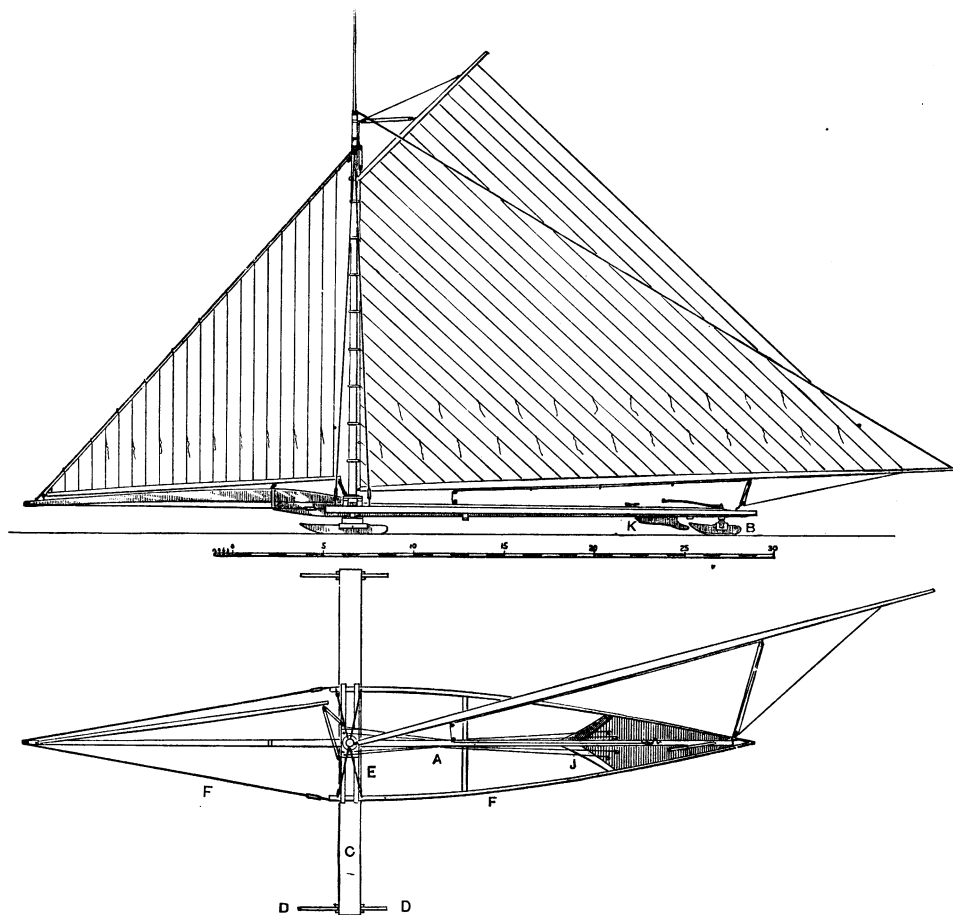


FIG. 1. PLAN AND ELEVATION OF AN ICE-YACHT.

THE construction of an ice-yacht is quite simple, but no craft requires a nicer balance of parts, better materials, or more thorough workmanship.

The Hudson, undoubtedly, has now the finest ice-yachts in the world, after an expenditure of about thirty thousand dollars in building them during the past fifteen or twenty years. The accompanying working drawings represent one of the best yachts of this region; and as the pages of a magazine do not admit drawings large enough to be a sufficient guide in themselves, a full and accurate description of its various parts is added. As no two yachts are alike, there is room for variation in some particulars that will be

explained farther on. Her various timbers, of light, strong wood, are beveled and tapered wherever they can be without producing undue weakness, and the irons and other parts are all neatly proportioned. As the principal timbers are subjected to severe strains, they are not often notched or cut to let in other parts; and all the joints are accurately fitted. The chief timbers of an ice-yacht are arranged in the form of a cross, to which some braces are added to strengthen the whole, and support the spars; and a large skate is placed under each end of the T. Her general appearance is shown in Figure 1, where A represents the center-timber; B, the rudder under the

* See "Ice-Yachting on the Hudson," in SCRIBNER for August (1881), for a picturesque and popular treatment of this subject.—ED.

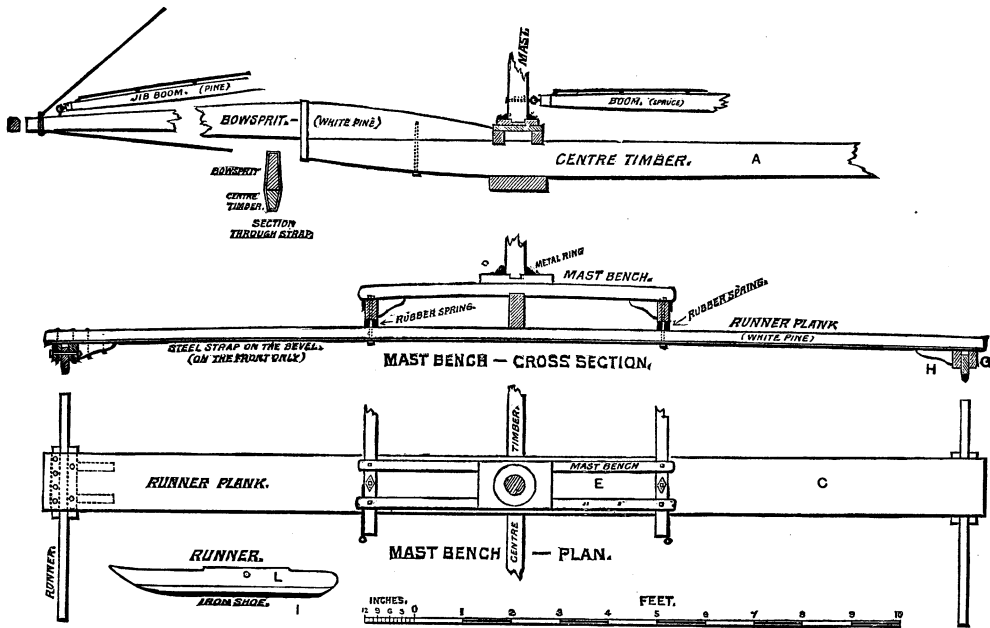


FIG. 2. PLAN AND ELEVATION OF MAST-BENCH AND RUNNER-PLANK.

stern; C, the runner-plank, with the runners, D D, under the ends of it; E, the mast-bench, to support the mast and bind the frame together; and F F, the side-rails, meeting at the deck, or box, at the stern.

The center-timber, A, of white pine, is twenty-six feet nine inches long; distance from center of runner-plank, or of the mast-step, to center of rudder-hole, twenty feet five inches; distance from outside of stern to rudder-hole, one foot eleven inches. On the under side it is three and a quarter inches thick from the stern to the runner-plank, then tapers to one inch and a half at the forward end. On top, it tapers from three inches and a quarter at the mast-bench to two inches and a quarter at the forward point of the box, and to one inch and three-quarters just forward of the top plate at the rudder-hole. Besides this beveling of the sides, it is tapered in depth each way from the mast-bench, the curve being on top toward the stern, and on the bottom forward of the mast-bench; eight and three-quarters inches deep at the mast-bench, eight inches at the forward point of the box, five inches and a half at the rudder-hole, and six inches at the forward end under the bowsprit.

The runner-plank, C, is made, generally, of spruce, or strong white pine, but ash is better; length, nineteen feet three and a

half inches; distance from center to center of the runners, eighteen feet six inches; from center to center of side-timbers, six feet six inches; width, one foot two inches; thickness in center, three inches and a quarter; at ends, three inches; it is cut from a five-inch timber to give it an arch of one inch and a half on under side; the front lower corner is beveled, and sometimes faced with a light iron strap; it is sometimes covered on top with canvas glued on and tacked along the edges.

The chocks, G, for holding the runner-skates, are of white oak, one foot six inches long, two inches thick, and four inches deep; the outer one is held to the plank by four wood-screws, five and a half by one-half inch, or else by carriage-bolts; the inner one is fastened by two such screws passing through the tenons of the braces, H; these braces are eight and a half inches long, two inches thick, and three inches and a quarter deep at the chock. They are let a quarter of an inch into the plank, and mortised into the chocks and held by three-eighth inch screws. And all these joints of the chocks and braces must be very carefully fitted and glued, for they meet with great strain. The skate, or runner, D, is held between the chocks by a five-eighth inch bolt seven inches long, passing through the chocks two inches and a half below the plank; it passes through the

Generated on 2021-12-25 15:42 GMT / https://hdl.handle.net/2027/coo.31924079637470 Public Domain / http://www.hathitrust.org/access_use#pd

skate two inches and a quarter below its top, and one inch abaft the center of the bearing or sharpened edge of the shoe, I. The plank is cut out a quarter of an inch at the edges between the chocks, to give the runners a chance to play up and down four inches at the forward end.

The skates are a very important part of the ice-yacht. The wood of the runner-skates, L, of white-oak, is four feet eight inches long, two inches thick, and four inches and a half deep at the center. Although their shape is a matter of taste, yet the rise of the forward curve should be gradual, to allow the skates to pass easily over obstructions. This curve is shod with an iron strap. The shoe, I, of cast-iron, is four feet one inch and a half long, one inch and three-quarters wide next the wood, and one inch and a half deep. Both the forward and the after curves rise gradually in flat, not sharp, edges; the forward curve begins ten inches from the nose or point, the after one about three inches—in each case measuring along the curve. The shoes are held to the wooden part of the skate by four five-eighth inch bolts, tapped into the shoe; they are respectively three inches, five inches, five inches, and five and a half inches long, beginning with the after screw. The sides of the shoe descending from the wood are beveled to produce a width of about three-quarters of an inch at a point about three-eighths of an inch above the bearing edge. From there the bevels, each about half an inch wide, descend to the sharp edge, and meet at an angle of one hundred and five degrees—a little more obtuse than a right angle. The sharp edge, which is about two feet eight inches long, has a curve or rock of at least one-eighth of an inch, and the flat surfaces of the rising curves very gradually narrow as they descend to the edge. The bevels of the cast-iron shoe are planed straight, of course, and the curves of the edge are finished by filing and whetting. The edge should be keen enough to readily scrape a shaving from the back of a finger-nail. Every first-rate ice-yacht has two sets of runners—one very sharp, and the other blunter, but smooth on the edge. For a blunt runner runs rather better than a sharp one in a light wind and on soft ice; and a sharp runner goes better on hard, smooth ice and in a strong wind.

A sharp rudder-skate is needed on every kind of ice. After the skates have been used awhile, they show where the curve can be reduced or increased, to give a better

bearing than can be had at the first filing. If the edges of the skates be true, properly curved, and exactly parallel, each skate, when the boat goes straight, makes only a single fine line, scarcely visible on hard, black ice.

The mast-bench, E, of ash or oak, is made of two pieces: the length of the forward one is about six feet nine inches; the after one is a little shorter, as the side-rails converge toward the stern; they are three inches and a quarter thick at the center, three inches at the ends, and three inches wide, and arched one inch and a half on the under side. They are let into the center-timber half an inch, and fastened to it by a six by one-half inch lag-screw in each; and fastened on top of the side-rails by a half-inch bolt at each end. The bench, one foot wide, is covered amidships by a two-inch black-walnut piece called the crown, eighteen inches long by eleven and a half inches wide, which is screwed on top of the bench. A block is screwed on to the center-timber to fill up the space between the halves of the mast-bench and make a solid, level bed for the mast-step. This crown has some beads or moldings turned on its upper surface about the center, to surround the mast-step, and give it a finish. As the mast is held up by the shrouds, the step is only one inch deep,—a square hole in the crown.

The bowsprit, of white pine, is seventeen feet seven inches long; depth at the mast-bench three and one-fourth inches, at the end of the center-timber nine inches, and at the forward end four inches. Its width on top is three and one-fourth inches at the mast-bench, tapering to three inches at the end; and on the under side it is three and one-fourth inches wide along the center-timber, and tapers to three inches at forward end. It has an arch of one and one-half inches on the under side, and the forward end drops three inches, so that its upper side here is on a line with the top of the center-timber. It is mortised into the mast-bench and held to the center-timber by a twelve by five-eighths screw, and by an iron band one and one-fourth inches wide by three-eighths of an inch thick. Each of the bowsprit shrouds, of three-eighths of an inch iron rod, is welded to a flat strap one-half inch thick by one and a half inches wide and six or seven inches long. These straps are each bent square, so as to meet in the center of the end of the bowsprit, being let into the wood. They are then held by a cast-iron

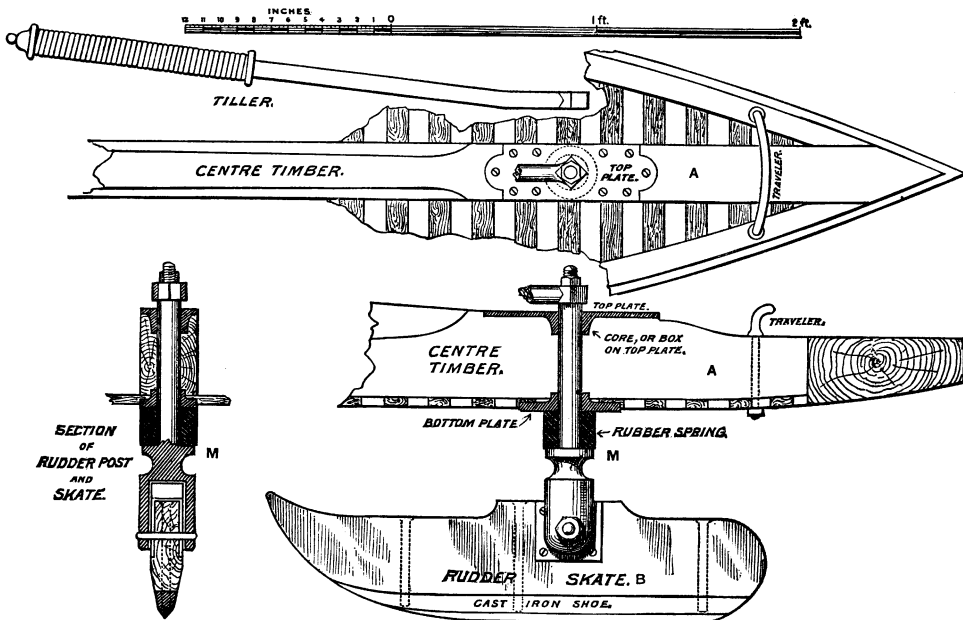


FIG. 3. DETAIL OF STEM AND RUDDER-SKATE.

cap, which covers the end of the bowsprit. The bowsprit is stiffened by a spreader for the shrouds and the jib-stay. The arms of the spreader are welded to a collar or band slipped on the bowsprit; or, the spreader may be fastened to the bowsprit by a rod passing through it and resting on the jib-stay, passing aft under the bowsprit.

The after ends of these shrouds pass through an eye in the end of a strap two feet long, two inches wide, three-eighths of an inch thick, which is screwed on to the outside of side-rail and covered with the casing.

The side-rails, of pine, cased on the outside with black-walnut or butternut and a spruce bead, are twenty-three feet one inch long; the thickness from forward end to the outer corner of the box is two and one-fourth inches; on top, from this point to the after point of the box, it is one and one-eighth inches thick, beveled on inside; on the under side, at this outer corner of the box, it is one and five-eighths inches thick, and tapers to one and three-eighths inches at the stern. The depth at the mast-bench is four and one-fourth inches; at the outer corner of the box, four inches; at the stern, three and one-half inches. Each side-rail is fastened to the runner-plank by a bolt one foot four and one-half inches long by seven-eighths of an inch. A brass-top plate with a thimble for passing this bolt through is let into the top of the side-rail. Another plate or strap

of iron, one-fourth of an inch thick, two and one-fourth inches wide, and two feet one inch long, is put on the under side of the side-rail, to which are fastened the eye-bolts for the shrouds, the bolts holding the mast-bench to the side-rails, and through which passes the bolt holding the side-rail to the runner-plank. A pattern of this plate is readily made while building. Put under the rail a piece of one-fourth inch stuff, of the right length and width, and bore the holes for the eye-bolts, etc., through the rail and pattern. The pattern may then be sent to the machine-shop for an exact guide in making the plate. A washer protects the under side of the runner-plank from the nut of the latter bolt. A three-inch by three-inch round rubber spring surrounds this bolt between the plank and the rail; or a more solid arrangement is to raise there a block of rubber to extend clear across the runner-plank. If no rubber spring be used, a block of wood on top or underneath the side-rail builds up between the runner-plank and the end of the mast-bench. The side-rails are strengthened by an ash brace half-way between the forward end of the box and the mast-bench; it is generally two and one-fourth inches wide, one and one-fourth inches thick at the center, and one inch thick at the ends. It is screwed on (not let in) the bottom of the center-timber and the side-rails.

The box or deck is nine feet six inches long on the center-timber, and one foot six inches wide at the corner, inside measurement. The floor is alternate strips of five-eighths inch red cedar or black-walnut and pine (without beading), one and one-fourth wide, running straight across. They are let in flush with the under side of the center-timber and the side-rails; they are put on with screws, and the ends are covered with the casing. The curved bulkhead, J, of black-walnut (steamed) or butternut, flares or inclines forward; it rises about seven and a half inches up the center-timber, against which it is screwed, and it fits against a slight shoulder beveled outward and forward from the lower and inner edge of the side-rail. Its upper edge projects over the side-rail to the casing. The floor is screwed to its lower edge, and it is made solid and firm, to stiffen the stern of the boat. A hair-cushion covers the floor.

The jumper, K, is an oak prong under the floor and center-timber, to prevent the rudder from catching on the edge of the ice when the boat jumps a crack or some other obstruction. It is two feet one inch long, of which one foot three inches is the straight bearing part on the floor. The lower side of the prong is seven inches below the floor. It is two and a half inches wide or thick on the floor, and one and three-fourths inches at the end of the prong. Its lower front side is shod with a half-inch half-round band of iron at each edge. It must not interfere with the point of the rudder, and the prong must be so low that the point of the rudder cannot drop below it.

The under side of the floor is provided with an arc of oak half an inch thick by two and a half wide, placed above the point of the rudder, so as to receive the blows from this when it is suddenly thrown upward by rough ice.

The wood of the rudder-skate, B, of white oak, is two feet five inches long, five and a half inches deep, two inches thick. The cast-iron shoe is two feet and one-half inch long, one and a half inches deep, one and three-eighths inches thick. Its bevels are the same as those of the runners; the bearing edge, one foot three inches long, begins six inches from the forward end of the shoe, and has a curve of one-eighth inch. It is held on the wood by three five-eighth bolts tapped into the shoe. The wood has a square plate of one-quarter inch iron set in flush on each side; and the skate is pivoted snugly between the jaws of the post by a

pin passing through these plates, two inches below the top of the wood and plates, and one inch abaft the center of the sharp edge of the shoe. The forged rudder-post is nine inches long above the shoulder, M, and one and three-eighths inches in diameter; it is one and five-eighths inches in diameter just below the shoulder, M. The shoulder is two and three-fourths inches in diameter. The jaws are three inches long in the clear inside, with a spread of two inches to hold the wood snugly; they are half an inch thick in the center, and about two inches and a half wide; the whole is turned up true, and a square head made to fit into the tiller, and a nut on top. The pivot for the rudder passes through the jaws about two and one-eighth inches from their top, to allow the point of the rudder to play up and down about seven inches below the floor, or drop two inches below a level line. The shoulder or the skate can be filed off to secure this play. A rubber spring, two inches and a quarter deep by three inches in diameter, is placed on the shoulder, with an iron washer above and below it. A top-plate of brass with a thimble, on the center-timber, and also a bottom-plate of iron with a thimble on the floor, give the rudder-post firm and snug bearing. As the top-plate, of a diamond shape, six inches long by two and five-eighths inches wide, is let into the center-timber where it slopes down to the stern, the hole for the rudder-post must be bored on a corresponding slant. The tiller, two feet nine inches long, and one inch in diameter near the post, increases in depth toward the end, to take a secure hold of the square head of the post. It may taper toward the handle, which is wound with cord.

The rigging of an ice-yacht is as important as the skates, for if the sails are not flat and properly balanced, she will be a slow and unmanageable craft. The sloop-rig is the most common; but the cat-rig is occasionally used. The lateen-rig was tried with very promising success the past winter. The sail was hoisted between a double mast rising from the ends of the mast-bench and meeting aloft as the legs of the letter A. The masts must be high enough to allow the yard on the head of the sail to fall off as much as the boom does; and yet the sail must not sag much on to the masts. The boom and yard are linked together; the boom is made fast, either at its forward end to the end of the bowsprit, or else at the mast-bench. The long boom may be stiff-

ened by spreaders, but they are found to be unhandy attachments. The frame of such a yacht may consist of only a strong center-timber, a bowsprit, and a runner-plank; and wire-rope stays may run from the stern to the ends of the runner-plank, and forward to the end of bowsprit, to stiffen the whole. The mast would rest on the plank, and the box would be built on top of the center-timber. This rig, presenting a single surface of canvas that can be kept uniformly flat and trimmed close, enables the yacht to point very close to the wind, and to obtain the full power of the wind without back drafts.

For the ordinary sloop-rig of the yacht previously described, the mast is twenty-two feet six inches long, five inches in diameter at the foot, four and a half inches at the rigging,—which is three feet below the head,—and three and a quarter inches at the head, which is ferruled or hooped. The mast is not shouldered for the rigging; a couple of hounds are put on. The topmast, four feet long, fits into a two-inch hole in the mast-head. The boom is thirty-two feet ten inches long, two and a half inches thick at the ends, and five inches vertically in the middle. In all the spars the vertical diameter is greater than the horizontal—in the proportion of five to four—the point being downward. They have a walnut ribbon, or jack, to which the sails are laced. The blocks are of *lignum-vitæ*, with brass sheaves and patent bush. The boom is held to the mast by two (three-eighth inch iron) eye-bolts; the shanks of each are square; that going into the boom is ten inches long. The gaff is ten feet five inches long with the jaws, two inches thick at the ends, and three inches vertically at the thickest part. The jib-boom is held to the bowsprit by two eye-bolts; that going through the bowsprit has a collar two and a half inches from the eye, to keep the jib-boom up off the bowsprit. It is sixteen feet two inches long, two and a quarter inches thick at the ends, and three and a quarter inches, vertically, at the thickest part. The jib-stay, starting from the mast-head, or the band of the peak halyard-block, passes through a hole in the bowsprit four inches from the end. The jib-sheet passes through a hole in the mast-step, and runs aft. The cleats for the halyards and sheets may be either just forward or just abaft the bulkhead. Usually the throat-halyard and jib-sheet are on the port side, and the peak and jib halyards on the other.

The standing rigging is of the best char-

coal wire-rope, one-half inch in diameter, galvanized; and it is rigged with ordinary turn-buckles. The iron-work is generally covered with silver-bronze powder, dusted on to varnish when it has dried enough to be sticky.

The dimensions and shapes of the sails are shown in Figure 1. The lift of the main-sail is one foot, that of the jib six inches. The canvas must be much heavier than that used for a sail of the same size for water-craft. Number six duck, single-bighted, is the best; number eight also is used. The sails, when furled, are protected by canvas covers.

The best order of operations in building an ice-yacht is: set up the center-timber, put on the side-rails and mast-bench, put in the bulkheads; turn the frame over and put on the floor, turn it back and put on the casings, fit on the bowsprit; true up the runner-plank on one edge and see that there is no wind in it, fit it on the side-rails, square across the center-timber, the ends being equally distant from the rudder-hole; put on the inside chocks for the runners, square across the plank; make the runners and lay them against the chocks; they must be carefully adjusted to be parallel with each other by laying a straight-edge or other stick across from one to the other, first at the forward end of the sharp edge of the shoe, and then at the after end of this edge; when they lie true, against the inside chocks, put on the outside chocks so that the skates are held snugly but can be swung a little up and down. The rudder and rigging are then completed. The easiest way to ship and unship the mast is to turn the frame—without the plank—on its side, then the mast can be stepped and rigged in a horizontal position; she is afterward righted and put on the runner-plank. In storing an ice-yacht, take down the spars, unship the rudder, runners, and runner-plank; the frame, then quite flat, is put on even bearings, to keep its true shape. The runner-plank is laid on its top, with a block under each end to prevent it from twisting or losing its arch. The shoes are coated with varnish, or blue ointment, to prevent rusting.

The ice-yacht here described is one of the medium size, belonging to the first class: length over all, fifty feet ten inches; width between runners, eighteen feet six inches; area of sails, five hundred and thirty-eight and a half square feet; weight, complete, eight hundred and fifty pounds; thickness of clear-water ice required to run

her, four inches. Mr. Jacob E. Buckhout, of Poughkeepsie, N. Y., builds such a boat for four hundred and fifty dollars. There are larger boats, one of them having these dimensions: length over all, sixty-eight feet ten inches; width between runners, twenty-five feet seven inches; weight, complete, two thousand three hundred and sixty pounds; area of sails, one thousand and seventy square feet; thickness of ice required, seven inches. One of the smallest size has a length of thirty-four feet five inches over all, a width of eleven feet three and a half inches, and carries two hundred and forty-eight square feet of canvas.

There are, of course, still smaller ice-boats, cobbled together by boys out of whatever odd pieces of stuff they can collect. The largest ice-yachts are the fastest and the steadiest in their motions; but they require more outlay, more ice, more men to handle them, and more trouble generally. It is, therefore, generally conceded that small yachts—say from fourteen to sixteen feet length of frame—afford the most amusement, by running on thinner ice, being more readily pushed in a calm, by requiring only a couple of men to put them on or off the ice, and, in short, by being more convenient in many ways. And as many persons would not care to build so expensive a yacht as these large ones, I add here the dimensions of a small yacht, suited to the average conditions, and a few hints about some different and some cheaper ways of building. Some men do not desire an ice-yacht to be very light; they prefer the above yacht to weigh eleven or twelve hundred pounds, instead of eight hundred and sixty pounds. They say that the momentum of a heavy boat carries her through calmer currents of wind and rough places on the ice; and that she thus sails faster, even in light winds; but on very short tacks she does not get headway so quickly. Those who favor lightness say that they can add ballast or passengers in heavy winds, and have her light in light winds, to push and handle. As far as one can judge, the question is still unsettled, but the majority of sailors prefer light yachts. Most of the boats built heretofore have round sterns; but the pointed stern, considered the strongest and cheapest, is less likely to bear on the ice when the yacht heels over or “lifts” very much. The radius of the round stern for the above yacht is ten inches and a half to the outside, with the rudder-hole as the center; the side-rails are twenty-one

feet three and a half inches long from the forward end to the center of the lap-joint, about opposite the rudder-hole, by which the semicircular piece forming the stern is joined to the side-rails; the center-timber is twenty-five feet eight and a half inches long. The mast-bench may be a straight two-inch pine-plank instead of two arched pieces; the side-rails may be of the same depth and thickness from bench to stern; a chock or brace may be placed on the under side of the side-rails, to bear against the after edge of the runner-plank and relieve the strain on the bolt holding the side-rails to the plank; a simple eye-bolt may be used instead of a traveler for the main-sheet block at the stern; a back-stay may be placed about three feet six inches abaft the runner-plank; a truss can be screwed on top of the center-timber if this prove to be weak; or it may be strengthened by passing a rod from the forward end of the timber, under the plank, and attaching it in front of the jumper. One of the latest improvements is a bobstay of half-inch wire-ropes, running from a hook let in under the band or cap at forward end of the bowsprit, passing through a groove in an oak block screwed to the under side of the runner-plank, and made fast to a hook on the center-timber just forward of the jumper. This bobstay, by keeping the bowsprit from lifting, keeps the jib-stay taut. Many yachtsmen desire the whole craft to be stiff enough to be lifted by the bowsprit without springing the latter perceptibly; but in most yachts the bowsprit will spring up about six inches when the yacht is lifted by it. There should be considerable spring in the runner-plank; the wider the side-rails are apart, the thinner the runner-plank may be.

A smaller yacht is of the following general proportions, the details and methods of construction being the same as those already given, and some allowance being made for the decrease of size: length of the center-timber twenty-one feet seven inches; length from outside of stern to the rudder-hole, twenty-six inches; length from rudder-hole to mast-step, fifteen feet; length from mast-step to forward end, four feet; thickness on bottom, three inches. It tapers on the upper edge from three inches at the mast-bench to two inches just forward of the rudder top-plate. It is eight inches deep at mast-bench; seven inches and a half at forward point of box; five inches and a half at rudder-hole; and six inches at forward end. The runner-plank is fourteen feet six inches long, four-

teen inches wide, and two and three-quarters inches thick in the center. The distance between runners is thirteen feet six inches; distance between side-rails, five feet. The chocks are eighteen inches long, two inches thick, and four inches deep. The braces are nine and a half inches long, one and three-quarters inches thick, and three inches deep. The wood of the runner-skates is four feet six inches long, one and seven-eighths inches thick, and four inches and a half deep at the center. The shoe is four feet long, one and three-quarters inches wide, and two and a half inches deep. The mast-bench is about five feet three inches long, and three inches thick at the center; the bowsprit twelve feet six inches long, three inches deep at mast-bench, six inches deep at the end of the center-timber, and three and a half inches deep at forward end. It is as thick on the bottom as the top of the center-timber along this timber, and tapers to one

and seven-eighths inches thick at forward end. The side-rails are three and a half inches deep, and one and three-quarters inches thick at the forward end; they taper in depth to two and seven-eighths inches at the box, to two and a half inches at the stern. The jumper is twenty-four inches long. The wood of the rudder-skate is twenty-eight inches long, three and a half inches deep, two inches thick. The shoe is twenty inches long. The rudder-post, etc., are of the same dimensions as those of the larger yacht. The tiller is thirty inches long. The mast is twenty feet long, four and a half inches in diameter at the foot; the boom is twenty-four feet long, gaff, ten feet, the jib-boom, eleven feet six inches long. The mainsail is twenty-three feet on the boom, nine on the gaff, fifteen on the hoist, and twenty-eight on the leach. The jib is sixteen feet six inches on the hoist, and eleven feet on the foot.

THE MISFORTUNES OF BRO' THOMAS WHEATLEY.

HE is our office-boy and messenger, and, my senior tells me, has been employed by the firm in this capacity for about thirty years. He is a negro, about sixty years old, rather short and stout, with a mincing, noiseless gait, broad African features, beautiful teeth, and small, round, twinkling eyes, the movements of which are accompanied by little abrupt, sidewise turns of the head, like a bird. His manner is a curious mixture of deference- and self-importance, his voice a soft, sibilant whisper, and as he was born and bred in Alexandria, Virginia, it seems almost superfluous to add that he and the letter "r" are not on speaking terms.

He has a prominent characteristic, which always attracts attention at first sight. This is the shape of his head, which is immensely large in proportion, very bald, and so abundant in various queer, knobby excrescences about the forehead and sides, and so unnaturally long and level on top, that for some time after I made his acquaintance I could never see him without finding myself forming absurd conjectures as to whether his cranium and the hydrostatic press could ever have become acquainted at some early period of his life; and so strong is this association of ideas that, even now, his sudden appearance in-

variably suggests to me the study of natural philosophy. Poor fellow! his chagrin was great when this peculiar conformation of his skull was first brought to his notice. He had been telling me for some time past of the "splendid piccha" he had had "took," and I had been promised a sight of it just as soon as it arrived from the photographer's. I confess I had not been sanguine as to the result, although I knew a handsome portrait was confidently expected by the sitter. One morning he deposited the photograph before me.

"Hello!" I cried, taking it in my hand; "here you are, hit off to the life."

"Do' say *that*, Mist' Dunkin, *do'* say hit, seh," he replied, in a tone of deep mortification. Then, catching a glimpse of the picture, his ire broke forth: "Nevvah wuz like *me* in de wueld," he cried, in an elevated key; "nevvah *wuz* ha'f so ugly ez that. I'm—I'm a bettah-lookin' man, Mist' Dunkin. Why, look at de color of de thing," contemptuously. "Cain' tell de face f'om de coat. I nevvah set up to be what you'd call *faih*-cumplectid, but disa things iss same is that thaih ink; jess iss same. My hade do' look that a way, neitha; Naw, *seh*, 'taint s' bad 's that."

"Why, Thomas," said I, "I think it a very good likeness—the complexion *is* a