

THE DANISH SKATE-SAIL.

WHEN the ice closes the Baltic ports, the pilots and sailors of the island of Amager, opposite Copenhagen, devote a part of their enforced leisure to ice-boating and skate-sailing. Little attention has been paid to the latter sport in this country, but in Canada a skate-sail has been in use,—to manage which, however, two skaters are necessary. It is a bungling contrivance, and lacks that yacht

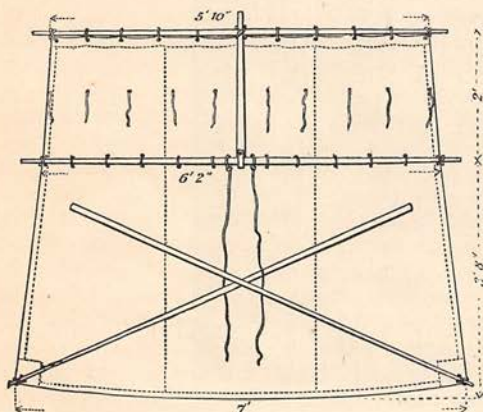


FIG. 1.—DIAGRAM OF THE SAIL.

and clipper-like trimness which is always the pride of a sailor whether on the ice or on the water. This objection cannot be urged against the Danish rig, which, under sail, has a decidedly rakish aspect. Moreover, in handling it there is no need of consulting with another man, as with the Canadian sail, when you wish to "luff" or "square away" before the wind. With the Danish rig you are boat, sail, captain, and crew, all in one. It will lay within five points of the wind, and any evolution which an ice-boat or yacht can perform, the skate-sailor can also execute, in less time, in less space, and with equal grace. Although this sail can be managed by any boy large enough to skate, there is sport enough in using it to afford excitement for a strong man, whose skill will be taxed in keeping the sail "ship-shape" and in acquiring the greatest speed possible under given conditions. Some falls will naturally occur, but I have never heard of a serious accident to a skate-sailor. When he does fall, it is generally backward, which means against the wind, the sail thus helping to let him down easily. If he loses his balance while under great headway, owing to the high velocity, he will strike the ice at a more or less

obtuse angle, sliding down easily instead of falling with star-making directness. The sensation when going at full speed is peculiar. At first, you feel that you have lost your hold on the earth, and your whole attention is drawn downward toward your skates; you wish they were heavier, so as to afford more ballast. But soon you gain confidence, a feeling of security takes possession of you, and if the ice is favorable and the road clear, you will attain what must be very similar to the sensation of flying. You seem scarcely to touch the ice, which appears streaked. Now you must keep your ankles stiff, but the rest of the body must be held easily poised and under ready control.

Simplicity of mechanism is the most noticeable feature of the Danish skate-sail, whose parts and dimensions are indicated by the diagram (Figure 1). For the material of the sail, use light cotton duck or heavy drilling. Fancy patterns of the cloth commonly used for awnings may be used with picturesque effect, such as may be seen in the sails of the small craft of Mediterranean ports. The sail is cut like a "square rigger's" lower sail and top-sail, the two being in one piece.

The diagram gives the dimensions of a sail for a man who carries one hundred and forty pounds of ballast under his jacket. But the sail can be made smaller or larger in proportion to the weight and strength of the wearer. The sail here indicated is seven feet wide at the bottom; it tapers slightly to a width of six feet two inches at the main or shoulder yard, and to a width of five feet ten inches at the top-sail-yard. The height of the sail above the shoulder-yard is two feet, and the depth below the shoulder-yard is three feet eight inches. The sail should have a hem an inch wide at the edges, and square laps at the lower corners, to which are fastened the ends of



FIG. 2.—BEFORE THE WIND, UNDER FULL SAIL.

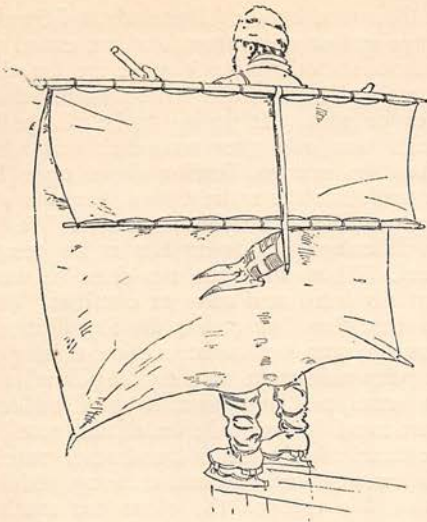


FIG. 3.—BEFORE THE WIND. TOP-SAIL DOWN.

the hand-sprits. Double eyelets are made where the shoulder-yard crosses the sail, through which cords bind the sail to the yard at intervals of six inches. Single eyelets, six inches apart, at the top of the sail, serve to bind the top-sail-yard to the sail. Reef-points should be fastened on a line midway between the yards, and on both sides of the sail. By loosening the cord that in a cross knot binds the top-sail-yard to the topmast, the top-sail may be rolled on the top-sail-yard to the reef-points, and the yard tied there to the topmast; or if the top-sail is not needed at all, it may be completely wound up and fastened at the ends to the shoulder-yard. The yards and hand-sprits should be of some light, tough wood, like thin spruce-poles. Bamboo poles, such as are used for fishing-rods, might be found serviceable. The yards should be about four inches longer (two inches on a side) than the width of the sail where they are bound to it. The top-sail-yard may be lighter than the shoulder-yard. The topmast, which fastens to the middle of the shoulder-yard by a gaff,—which may be of thin strap-iron or stout leather,—may be extended beyond the top-sail-yard so as to form a top-gallant-mast, from which the sailor may fly a pennant. The hand-sprits should be between six and a half and seven feet long. Two stout straps or heavy strings, fastened by nooses to the shoulder-yard on each side of the gaff, serve to fasten the rig to the sailor. The cords are passed over the shoulders, crossed over the breast, and after being carried around the waist at the back are brought forward and tied at the belt.

It will be observed in the pictures showing

the skaters under sail, that the hand-sprits serve as "tacks" and "sheets" (in nautical phrase the ropes fastened to the lower ends of sails to hold the sail in position for tacking, and to extend and hold in position the lower part of the sail). The rigid hand-sprits enable the skater to shift sail with rapidity and precision, and to keep it in the required position. The skater should have some experience with a reefed sail in a light breeze before attempting to carry full sail in a stiff breeze. Figure 2 shows the skater going full sail before the wind. The top-sail may be lowered (Figure 3) by running slightly into the wind, after which the skater may go before the wind, or on either tack, with the top-sail down. He may raise the top-sail at pleasure simply by bending the body forward, and allowing the wind to get under the top-sail. When sailing "on the wind," or on any course except "right away" before the wind, the windward foot should be a little in advance of the leeward foot, as seen in the starboard or right tack (Figure 4) and the port or left tack (Figure 6). The knees should be bent slightly, as that position assists in keeping one's balance. When "going about" in a stiff breeze (Figure 5), preparatory to changing the course (going on a new tack), the skater should "luff up" into the wind, and allow the top-sail and main-sail to fly out astern. With the speed acquired he will make a considerable distance windward before he swings around and is ready to set sail on the other tack. As the top-sail is supported



FIG. 4.—ON STARBOARD TACK.

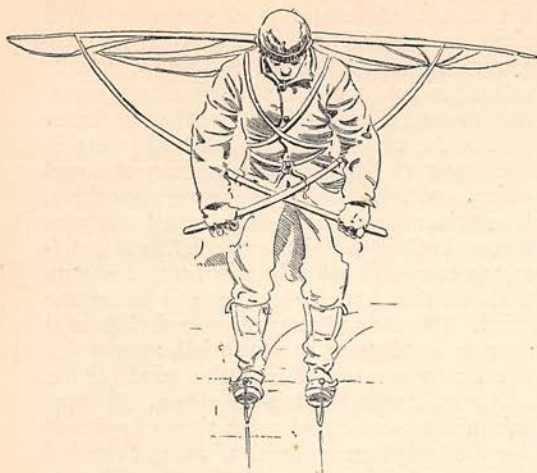


FIG. 5.—“GOING ABOUT.”

by the topmast leaning against the head, it is advisable to wear a soft, thick cap.

The degree of speed attainable by an expert skate-sailor is lower than the speed of the fastest ice-boats only because of the inability of the skater to keep his full weight upon the ice, except in sailing before the wind. But with the wind “abeam” or on the quarter, the skater must lean to windward to preserve his balance, and a part of his weight is shifted thereby from the ice to the wind-supported sail, and his hold upon the ice is weakened. This disadvantage can be partly overcome by bending the head and allowing the top-sail to press downward on the neck and shoulders. When sailing with a stiff breeze abeam, if the skater should meet another craft on the other tack, he should go either to the windward of him or give him plenty of room, for if he allows the stranger to pass him close to windward, the stranger will take the wind out of his sail, which will place him in danger of capsizing. Skate-sailing can be practiced on ice too rough for fancy or common skating; in fact, very hard and smooth ice is not the best for this sport, and even a little snow is no obstacle to good sailing.

The sail which served as the model for these drawings was made more than twenty-five years ago. It is of stout cotton duck, the spars are spruce-poles, and the gross weight is seven pounds. When rolled up in shape for carrying, it is only a little more bulky than an old-fashioned cotton umbrella. As to skates, the old-fashioned kind with long, thin, grooved blades and square heels are the best, but a club-skate will answer the purpose very well.

One sunny, breezy, winter day, I joined a small party of Danish skate-sailors in a cruise

on the sound between Denmark and Sweden. Three or four miles from land we espied at a distance something black on the ice, for which we steered, supposing it to be a wounded wild duck or goose. It proved to be a large fox, which was out after wounded water-fowl. When he saw us bearing down upon him he made for the nearest land, but was soon overhauled and nearly surrounded. We had no difficulty in following him at his greatest speed. When we came too close he would turn his head and snap at our legs. While we were thus flying over the ice, discussing between ourselves what a nice skating-cap his pelt would make, and dividing in advance the brush, pelt, and nose, Reynard suddenly came to a full stop, while we all flew past him. He then broke for the land, and nearly reached it before we could tack and come up with him again. We enjoyed the chase too much to dispatch him at once. But his foxship soon learned the principles of skate-sailing, and watching his opportunity, he dodged us again, set his course nearly into the wind's eye, where we could not follow him, and nose, pelt, and brush soon disappeared in the dry grass on the shore. Danish sportsmen sometimes use



FIG. 6.—ON THE PORT TACK.

the skate-sail to carry them to duck and goose hunting-grounds, where, as I have done with success, they can make shooting-boxes out of the sails.