

and ceremonial occasions. From that time forward, the production of wool in this island, and the various manufactures connected with it, have gone on increasing in importance, until it has become one of the chief branches of our commerce.

## NAVAL TACTICS.



N being told the number and size of the sails which a vessel can carry (that is to say, can sail with, without danger of being upset), the uninitiated seldom fail to express much surprise. This is not so striking in a three-decker, as in smaller vessels, because the hull of the former stands very high out of the water, for the sake of its triple rank of guns, and therefore bears a greater proportion to its canvas than that of a frigate or a smaller vessel. The apparent inequality is most obvious in the smallest vessels, as cutters: and of those kept for pleasure, and therefore built for the purpose of sailing as fast as possible, without reference to freight or load, there are many the hull of which might be entirely wrapt up in the mainsail. It is of course very rarely, if ever, that a vessel carries at one time all the sail she is capable of; the different sails being usually employed according to the circumstances of direction of wind and course. The sails of a ship, when complete, are as follows:—

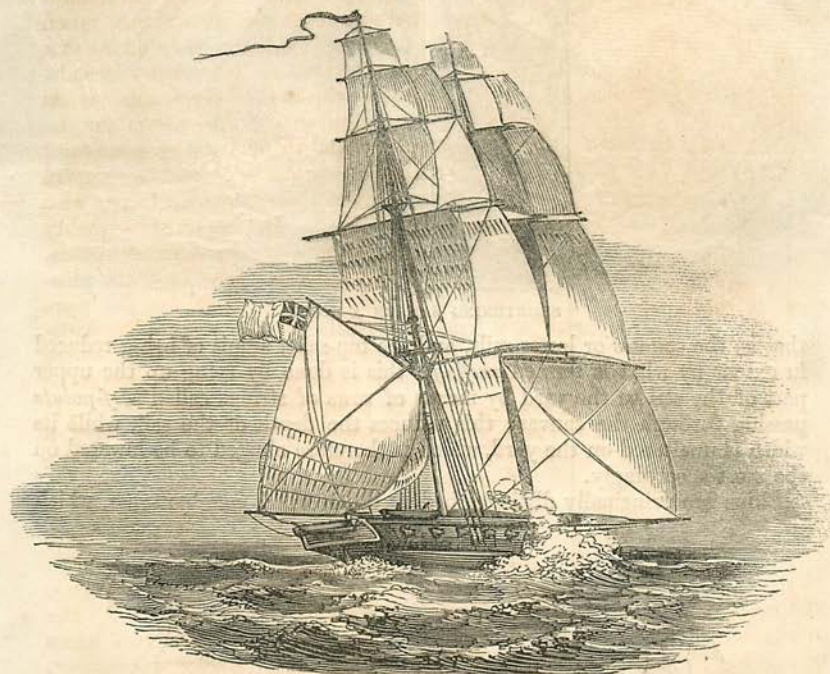
The lowermost sail of the mast, called thence the *mainsail*, or *foresail*; the topsail, carried by the *topsail-yard*; the top-gallant-sail; and above this there is also set a *royal* sail, and again above this, but only on emergencies, a sail significantly called a *sky-scraper*. Besides all this, the three lowermost of these are capable of having their surface to be exposed to the wind increased by means of *studding* sails, which are narrow sails set on each side beyond the regular one, by means of small *booms* or *yards*, which can be slid out so as to extend the lower yards and topsail-yards: the upper parts of these additional sails hang from small yards suspended from the principal ones, and the boom of the lower studding-sails is hooked on to the chains. Thus each of the two principal masts, the fore and main, are capable of bearing no less than thirteen distinct sails. If a ship could be imagined as cut through by a plane, at right angles to the keel, close to the mainmast, the *area*, or surface, of all the sails on this would be five or six times as great as that of the section or profile of the hull!

The starboard studding-sails are on the fore-mast, and on both sides of the main-top-gallant and main-royal; but, in going nearly before a wind,

there is no advantage derived from the stay-sails, which, accordingly, are not set. The flying-jib is to be set to assist in steadying the motion.

The mizen-mast, instead of a lower square-sail like the two others, has a sail like that of a cutter, lying in the plane of the keel, its bottom stretched on a boom, which extends far over the taffarel, and the upper edge carried by a *gaff* or yard sloping upwards, supported by ropes from the top of the mizen-mast.

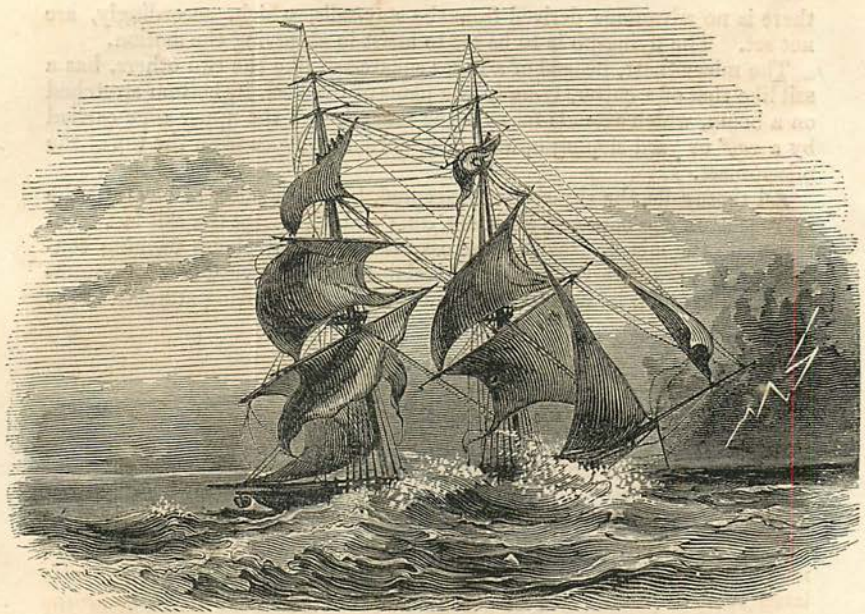
All these sails, the sky-scrapers excepted, have four sides, as have also the sprit-sails on the bowsprit, jib-boom, &c. ; and all, except the sail last mentioned on the mizen, usually lie across the ship, or in planes forming considerable angles with the axis or central line of the ship. There are a number of sails which lie in the same plane with the keel, being attached to the



SHIP UNDER ALL SAIL.

various *stays* of the masts ; these are triangular sails, and those are called *stay-sails* which are between the masts : those before the fore-mast, and connected with the bowsprit, are the *fore stay-sail*, the *fore-topmast-stay-sail*, the *jib*, sometimes a *flying jib*, and another called a *middle jib*, and there are two or three others used occasionally. Thus it appears that there are no less than fifty-three different sails, which are used at times, though, we believe, seldom more than twenty are *set* at one time, for it is obviously useless to extend or set a sail, if the wind is prevented from filling it by another which intercepts the current of air.

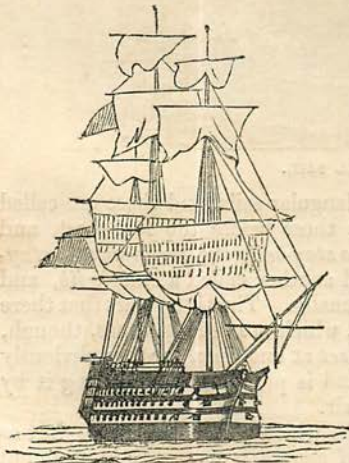
The higher the wind, the fewer the sails which a ship can carry ; but as a certain number, or rather quantity, of canvas is necessary in different parts of the ship to allow of the vessel being steered, the principal sails,



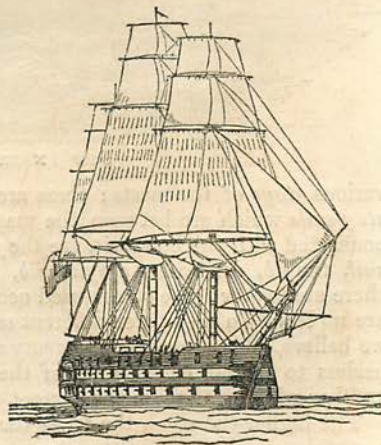
SHORTENING SAIL IN A STORM.

that is, the *courses* or lower sails, and the top-sails, admit of being reduced in extent by what is termed *reefing*: this is done by tying up the upper part of the sail to the yard by means of rows of strings called *reef-points* passing through the canvas; this reduces the depth of the sail, while its width is unaltered on the yard, which is therefore obliged to be lowered on the mast accordingly.

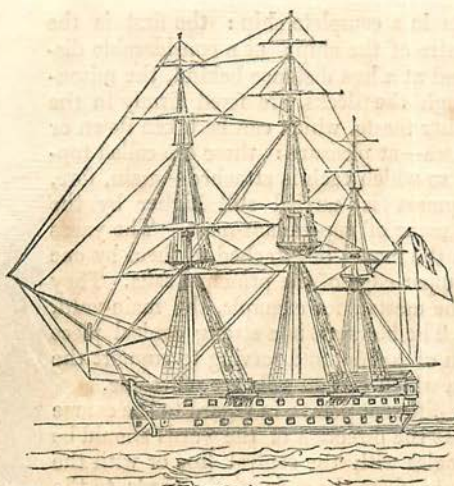
Ships are principally distinguished as those called merchantmen, which



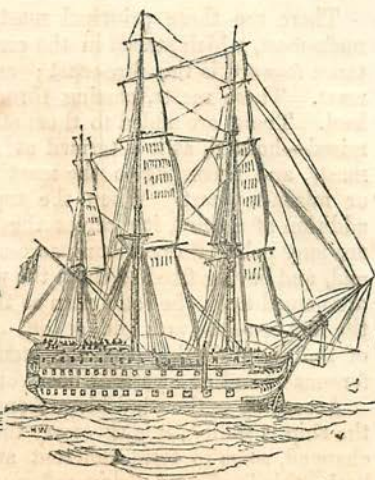
LOOSED SAILS.



TOP-GALLANT-SAILS HOME.

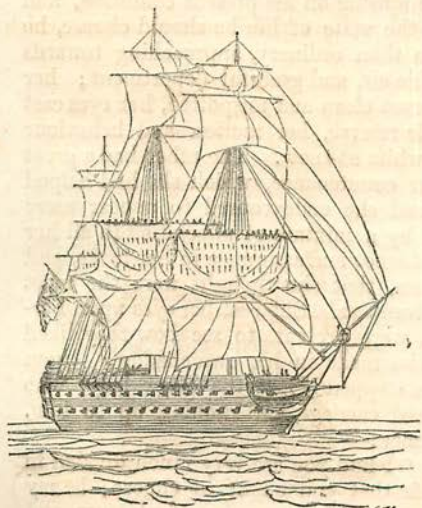


PREPARING TO MAKE SAIL.



MAKING SAIL ON THE STARBOARD TACK.

belong to individuals or companies, and are engaged in commerce; and men-of-war, or the national ships, built for the purposes of war. The latter receive their designation from the number of their decks, or of the guns which they carry. The largest are termed ships of the line, from their forming the line of battle when acting together in fleets; and are divided into first-rates, second-rates, third-rates, &c. First-rates include all those carrying 100 guns and upwards, with a company of 850 men and upwards; second-rates mount 90 to 100 guns, and so on, down to the sixth-rates; but some ships of less than 44 guns are termed frigates.



REEFING TOPSAILS.



DOUBLE-REEFED TOPSAILS.

There are three principal masts in a complete ship : the first is the main-mast, which stands in the centre of the ship ; at a considerable distance forward is the fore-mast ; and at a less distance behind, the mizen-mast. These masts, passing through the decks, are fixed firmly in the keel. There are added to them other masts, which can be taken down or raised—hoisted, as it is termed at sea—at pleasure : these are called top-masts, and, according to the mast to which each is attached—main, fore, or mizen-topmast. When the topmast is carried still higher by the addition of a third, it receives the name of top-gallant-mast. The yards are long poles of wood slung across the masts, or attached to them by one end, and having fixed to them the upper edge of the principal sails. They are named upon the same plan as the masts ; for example, the main-yard, the fore-top-sail-yard, and so on. The bowsprit is a strong conical piece of timber, projecting from the stem of a ship, and serving to support the fore-mast, and as a yard or boom on which certain sails are moveable.

According as the wind blows from different points, in regard to the course the ship is sailing, it is necessary that the direction of the yards should be changed, so as to form different angles with the central line or with the keel ; this is effected by ropes brought from the ends of the yards to the mast behind that to which these belong, and then, passing through blocks, they come down to the deck : by pulling one of these, the other being slackened, the yard is brought round to the proper degree of inclination ; this is termed bracing the yards, the ropes being termed braces.

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### THE CHOICE OF HERCULES.

WHEN Hercules was in that part of his youth in which it was natural for him to consider what course of life he ought to pursue, he one day retired into a desert, where the silence and solitude of the place very much favoured his meditations. As he was musing on his present condition, and very much perplexed in himself on the state of life he should choose, he saw two women, of a larger stature than ordinary, approaching towards him. One of them had a very noble air, and graceful deportment ; her beauty was natural and easy, her person clean and unspotted, her eyes cast towards the ground with an agreeable reserve, her motion and behaviour full of modesty, and her raiment as white as snow. The other had a great deal of health and floridness in her countenance, which she had helped with an artificial white and red ; and she endeavoured to appear more graceful than ordinary in her mien, by a mixture of affectation in all her gestures. She had a wonderful confidence and assurance in her looks, and all the variety of colours in her dress, that she thought were the most proper to shew her complexion to advantage. She cast her eyes upon herself, then turned them on those that were present, to see how they liked her, and often looked on the figure she made in her own shadow. Upon her nearer approach to Hercules, she stepped before the other lady, who came forward with a regular, composed carriage, and running up to him, accosted him after the following manner :—

“ My dear Hercules !” says she, “ I find you are very much divided in your thoughts upon the way of life that you ought to choose ; be my friend, and follow me ; I will lead you into the possession of pleasure, and out of the reach of pain, and remove you from all the noise and disquiet-