PART II—WARLIKE OPERATIONS AT SEA.

Referring generally to the articles Admiral and Admiralty, Docks, Navigation**,** NaW, Seamanship, Ship**-**Building, Signals, and Telegraph, for much that ap­pertains to naval war, we shall here direct our attention to that branch of the subject which is commonly designated *Naval Tactics.* By this term is understood the art of ar­ranging fleets or squadrons in such an order or disposition as may be most convenient for attacking the enemy, de­fending themselves, or of retreating with the greatest ad­vantage. Naval tactics are founded on those principles which time and experience have enabled us to deduce from the improved state of modern naval warfare, which has oc­casioned, not only a difference in the mode of constructing and working ships, but even in the total disposition and regulation of fleets and squadrons. We here propose to lay down the general principles of naval tactics, and to de­scribe, as briefly as is consistent with perspicuity, the most improved systems which have been adopted in modern times.

Fleets are generally divided into three squadrons, the van, centre, and rear, each under the command of a flag-officer. The admiral of the fleet, or chief in command, leads the centre division, while the van is usually command­ed by a vice-admiral, and the rear by a rear-admiral. Each squadron is distinguished by the position of the colours in the ships of which it is composed. Thus, the ships of the centre squadron carry their pendants at the main-top-gal­lant mast head, while those of the van division have their pendants at the fore-top-gallant mast head, and those of the rear at the mizen-top-mast head. Each squadron, as far as possible, consists of the same number of ships, and as nearly as may be of the same force. In large fleets, the squadrons are sometimes again divided in a similar man­ner ; the van and rear of the squadron being headed by rear-admirals, or senior captains, called commodores. In the usual mode of forming the lines, each commanding ad­miral arranges his ship in the centre of his own squadron, and thus the admiral of the fleet is in the centre of the line. When no enemy is in sight, the sloops, store-ships, fire-ships, and other small vessels, are dispersed to wind-ward of the fleet, that they may be more easily supported, and more readily answer signals. The frigates lie to wind-ward of the van and rear of the convoy, thus keeping a good look-out, and keeping the small vessels in their proper station. When the fleet sails in three columns, the centre still keeps in the middle, while the van and rear form the starboard or the larboard column, according to circumstances. These arrangements are called orders of sailing, and will be better understood from the following definitions.

The *starboard line of hearing* is that line on which the arranged ships of a fleet bear from each other on a close- hauled line, whatever course they may be steering, so that when the ships haul their wind, or tack together, they may be on a line close hauled upon the starboard tack. The *larboard line of bearing* is that line on which the ships, when hauling their wind, or tacking together, may be formed on a line close hauled on the larboard tack. The ships of a fleet are said to be on *a line abreast* when their keels are parallel to each other, and their main-masts lie in the same straight line. Ships are said to be in a line on the bow or quarter when they are arranged in a straight line cutting their keels obliquely in the same angle, so that, reckoning from any intermediate ship, the ships towards one extre­mity of the line will be on the bow of that ship, while those towards the other extremity will be on her quarter. When several ships in the same line steer the same course, while that course is different from the line of sailing, they are said to sail chequerwise.

When the ships of a fleet arranged in any of the orders of sailing, and on the same line, perform successively the same manœuvre, as each gets into the wake of the ship that leads the van of the line or squadron, tacking or veer­ing, bearing away or coming to the wind in the same point of the wake of the leading ship, they are said to *manœuvre in succession.*

There are usually reckoned five orders of sailing, exclu­sive of the line of battle, the order of retreat, &c. In the first order (see figs. 1 and 2), the fleet is arranged on the *starboard* or *larboard* line of bearing, all the ships steering the same course. In these cases the fleet, by hauling the wind when in the starboard line, as in fig. 1, will be ready to form the line on the starboard tack ; and when ranged on the larboard line of bearing, as in fig. 2, it will, by tack­ing, be ready to form the line on the larboard tack. The ar­rows annexed to the diagrams mark the direction of the wind, as in ordinary charts.

This first order of sailing is now seldom employed, ex­cept in passing through a narrow strait. In the second or­der of sailing, the fleet steering any proper course, is ranged in a line perpendicular to the di­rection of the wind, as in fig. 3. This second order, besides being equally defective with the former, is subject to the additional disad­vantage of rendering it extremely difficult for the ships to tack, without each ship falling on board that next astern.

In the third order of sailing, the whole fleet is close hauled, and ranged on the two lines of bearing, so as to form an angle of twelve points, having the admiral’s ship (A, fig. 4) in the angular point, and the whole fleet steering the same course. Thus, supposing, as in the figure, the wind at north, the starboard division of the fleet will bear W. N. W. of the admiral, and the larboard E. N. E. This order in small fleets or squadrons is superior to either of the former ; but when the fleet is numerous, the line will be too much extended.

In the fourth order, the fleet is divided into six or more columns, and is thus more concentrated. The command­ers, ranged on the two lines of bearing, have their squa­drons astern of them, on two lines parallel to the direction of the wind ; the first ships of each column being, with respect to the commander of the squadron, the one on his star­board and the other on his larboard quarter. The distance between the columns should be such that the fleet may

Précis des Evenemens Militaires. Core’s Life of Marlborough. Pasley’s Essay on the Military Policy and Institutions of the British Em­pire. Janes's Journals of Sieges.

The foregoing part of this article was written for the Supplement to the former editions, by Lieutenant-Colonel Charles Hamilton Smith. The part that follows, *on Naνal Tactics,* was written by one of the contributors to the fourth edition, but of whose name we are not accurately informed.