

The coefficient of speed is the ratio between the number of revolutions per minute of a ship's propeller and that of the flag-ship when the speed of both vessels are the same.

The coefficients of helm of a ship are the ratios existing, under various conditions of speed, between the angles of helm of that ship and the flag-ship when describing the same circle.

Every ship should know its own coefficient of speed and its coefficients of helm for different rates of steaming.

The regulator of the fleet is the ship on which the various orders are formed and signalled. The regulator sets the compass course and regulates the speed of the fleet. The flag-ship of the commander-in-chief is always the regulator, unless some other ship be designated. In compound orders each squadron has its own particular regulator.

When signal is made for the formation of a particular order, every ship takes her bearing and distance from the regulator of the fleet. Each ship manoeuvres independently, and steers the shortest route to the station her number in the fleet assigns, observing strictly, however, the rules for the prevention of collisions. This is called gaining stations, and the mode of operation constitutes the formation.

The passing from one order to another, by a series of movements provided for and described in its place in the signal book, constitutes an evolution.

When the fleet is under way, the ships between which the regulator is placed are stations when on the compass bearing from that ship required by signal, and from that distance. The other ships at the prescribed proper line of bearing themselves on the regulator, and preserve the prescribed distance from their nearest line towards the regulator. If, through chance or negligence, a ship falls out of her station so far as to risk separation, the other ships are to manoeuvre without regard to her, and the line, of which she formed part will be established as if she was authorized to withdraw from the fleet. Her place will be taken by that ship which had regulated her motions by her—the next in succession.

LESSONS OF THE DECADE APPLIED.— NO. IX.

(From the Army and Navy Journal.)

SQUAD DRILL—TURNS.—The squad marching in file it may become necessary to change direction of head of file. The instructor after proper explanation commands *Right—TURN!* At the word "Turn" the file leader marches to the right according to the instructions given (to the right—march), and each man as he arrives at the same place follows his file-leader, the instructor cautioning them against turning too soon. To accustom them to this, he should make his turns around a post or marker at first, afterwards discontinuing its use.

Left—TURN! is executed on inverse principles. *Right about* and *Left about—TURN* are made so as to head the file in the opposite direction. The squad marching in file to form it in line to the front, the instructor commands, *Form squad—MARCH!* At the command "Form Squad," the men fix their eyes on the instructor, who will be on one side the head of the file. At the word "March" the leader of the file halts and the rest oblique up alongside of him on the flank where the instructor has halted, whichever it be, and facing him. As each man reaches

the alignment he halts and dresses on the file-leader, nor become a pivot man.

To resume the march the instructor commands, *FORWARD!* and the squad marches in line. To form squad to the rear, the about march must be first executed. The instructor indicates in all cases by waving his sword or hand the flank to which formations are to be made, saving his voice.

WHEELS.—After teaching the changes from line to file, and back again, at a halt, marching, and double quick, the instructor explains the principles of wheeling and commands, *Squad right wheel—MARCH!* At the words "right wheel" all the men dress to the right, with their eyes fixed on the right hand man or pivot. He alone looks to the left. At the word "March" all step off, the pivot man turning slowly in his place, marking time, the men next to him moving in very short steps, the outside men stepping out freely and preserving the alignment. Arrived at a sufficient distance the instructor commands, *Squad—HALT!* when the squad is halted and dressed.

Left wheel—MARCH! is executed on inverse principles, the left hand man being pivot. Right about and left about wheels are continued until the line faces in an opposite direction to the first. The line will always be dressed after a wheel.

REMARKS.

The causes of unsteady and wavering wheels almost always lie near the pivot. The men there cannot learn to shorten step sufficiently without sharp supervision. In consequence, the line bulges out near the centre. The men inside the centre must be specially cautioned on this point. A second cause is crowding the pivot. The men must be cautioned to yield to pressure from his side, and to resist pressure from the outside.

Wheels must be made very slowly at first. The squad must be halted and dressed every time the line wavers in the least.

One hour's steady, slow wheeling will improve recruits more than days of hurried imperfect wheels.

When the squad can execute the wheels steadily, at a slow pace, they may be put to common time, quick time, and double quick time, and bugle drills. When they execute these correctly, and not till then, they must be exercised in marching wheels, in precisely the same manner, resume the direct march at the word "Forward!"

The wheelings terminate in squad drill. Green troops should be kept at this drill for some time, the most exact precision being required in every movement. Simple as the drill is, if not precisely done it is quite worthless. Exactly performed it becomes the groundwork for all future usefulness as soldiers, to the troops using it. When men have learned to change from line to file and back again, to change their direction promptly in either formation by wheels and turns, and finally to this at the double-quick, without any disorder, they have learned the first lesson of tactics, viz., to move a number of men as a unit. After this their progress will be easier every day.

No commander should be satisfied with his company till it can execute every movement at the double-quick, to the sound of the bugle. This bugle drill makes the men quick of apprehension, and cannot be over-rated in advantages for initiatory drill. Every subsequent lesson will prove easier to master with quick-witted soldiers.

Victor Emmanuel has brought an action of defamation against a Vienna editor who called him names.

EXCITING STAMPEDE OF CAVALRY.

On Tuesday the 1st regiment of Life Guards, commanded by Colonel the Hon. Dudley de Ros, and consisting of three squadrons, arrived at Aldershot from Windsor, and at once proceeded to occupy canvas quarters on Cove Common. The horses about 309 hundred in number, were picketed outside the encampment, according to the plan which has been recently introduced, and which is based upon the system practised in the Prussian army. On Wednesday evening two dogs made their appearance in the camp and began to quarrel. The larger animal fastened on the smaller, and bit it severely, on which the latter set up a hideous yell, and ran towards the horses, two of which started from their pickets, and were followed at once by six troop horses. A sudden impulse seized the whole line, and at least three hundred broke loose at the same moment, running and snorting in all directions. An indescribable scene of confusion ensued, the whole locality for miles being aroused by the flight and pursuit of the excited animals some of which dragged the cords and pins, and all wearing their saddle cloths. Large numbers of men from the various regiments were soon in chase under the command of captain Hozier and several other officers. The whole locality was scourged within a circuit of at least a dozen miles. The pursuers, comprising some hundreds both of cavalry and infantry, ran off in every variety of undress, the whole scene being of a grotesque and exciting description. About twenty galloped into the encampment of the 1st Battalion Rifle Brigade, where they came in contact with a cab, which they knocked over, and greatly injured the proprietor. About fifty galloped through the town of Farnham, of which 15 were secured, the remainder running on towards Alton and Petersfield. At Wilton about two miles beyond Farnham, the troop dashed against the closed toll-gate, and smashed it to pieces, while on the commons around Farnborough and Aldershot, in the opposite direction, many plunged against stakes or other obstructions, which penetrated their breasts or otherwise inflicted serious injury. Several horses dropped dead within an hour, others were drowned in the canal, and others were injured in a crippled state. The pursuers returned to their quarters about midnight, leaving a number of horses at large, and the search was resumed on Thursday morning. The bark of the little cur above-mentioned will prove an expensive matter to the country, since, in addition to the horses already dead or crippled, many others will have to be sold as unfit for service. The men of the 1st Life Guards complain that the material supplied for use in securing the horses on pickets was not of a proper description, but the one with which the animals broke from the pickets must be attributed in some measure to the sandy nature of the soil on Cove Common. It was found in the morning that about ten were killed and twenty-six missing, many others being wounded.

The carcases of nearly a dozen chargers of the 1st Life Guards were scarcely cleared away, or the heated blood of the survivors cooled, and whilst a large number were actually under treatment in the sick lines for injuries more or less severe, when a similar incident occurred. On Friday and Saturday, 2nd Dragoon Guards (Queen's Bays) arrived from Colchester and took up their quarters on Cove Common. The strength of the corps, which is commanded by Col. Seymour, is 23 officers, 463 men, and 370