

AFLOAT.

BY J. J. PROCTER.

The good ship lies beneath cloudless skies, and the breezes are all asleep, And we seem to pass upon moulten glass spread out on the face of the deep, The sails flap lazily to and fro, and the sun sinks down in the West, All seems as calm and as full of peace, as a maiden's gentle rest;

But it keeps an eye aloft and it keeps an eye aloft, The way is long, though the ship be strong, when scarcely the breezes blow.

Ha! Look down how the cloud banks frown and the sun is set in blood, There's a mutter and jar in the skies afar, and a murmur upon the flood! And the beautiful sea leaps swift and high to the kisses upon her pressed, For a passion of love is raging above and a passion of love in her breast, And it's make all snug aloft, and it's make all snug aloft, For the ship is strong though the night be long and the gale begins to blow.

The timbers creak and the tough spars shriek, and the ropes are singing aloud, There's a joyous strain to the foaming main from futtock and mast and shroud; And there jet-bodied and white-maned all the huge wave-couriers tear, With a leap and a rush in the waves below, and a rush and a leap through the air; And it's keep all snug aloft and it's keep all snug aloft, And the ship is strong, though the night be long, and the wilful tempests blow.

What fear have we who are known to the sea, of her passionate moods of play? The good ship cleaves through the tossing waves and puts them in scorn away. We love her in all her moods as the man loves the caprice of a maid. The spray may fly and the winds rise high, we love and are not afraid; But it's keep all snug aloft and it's keep all snug aloft, Who trusts too much to maiden or sea, too little, I ween, doth know.

A FEW THOUGHTS ON THE ARTILLERY ITS CONDITIONS AND REQUIREMENTS

BY AN ARTILLERY OFFICER.

SPECIAL INSPECTOR OF ARTILLERY—INSTRUCTION.

Another thing which would add very much to the efficiency of the artillery, even on its present basis, is the appointment or detail of a special inspector of artillery. Very likely it might be advantageous to extend the application of the principle to the appointment of special inspectors for all arms. Is it not the fact, however, that the inspections of nearly all artillery posts are conducted on an infantry basis? Indeed, it may be questioned, without discredit to the Inspector-General's Department, whether a comprehensive and thorough inspection of an artillery command can be made by an officer who has not made the subject of artillery a speciality. There is an inspector to report fully and accurately upon the efficiency of the officers as *artillerists*, or on the manner in which the system of instruction ordered by the War Department is carried out, unless he has himself served as an artilleryman and is thoroughly informed on the subject? The evil is partially remedied by requiring the colonels of regiments to visit their commands, but the inspections made by the officers of the Inspector-General's Department are for other and different purposes, and can in no way be lessened in importance by the inspections of commanding officers.

Another matter wherein great reform is attainable is the system of instruction prescribed for the artillery. Every officer can bear testimony to the fact that the instruction given at the posts is, as a rule, trifling too often, because it leads some young officers to conceive that they know all that is requisite, because they have studied the prescribed text books, scrupulously omit-

ting everything approaching "theory." Our established text books are Gibbon's Manual and Roberts's Handbook, neither of which has been revised in several years. Is it not true that by far the larger number of artillery officers are ignorant of even the character of standard artillery literature of foreign countries, and know those which are standard the world over only by name? There are excellent reasons for this, such as the isolation of posts and the cost of professional works. But a remedy exists and regimental commanders can apply it.

The order heretofore quoted, issued by General Sherman, would, if enforced, create an active inquiry for other works than Gibbon and Roberts. The regimental library could at least procure the standard modern works [Why by the way, should post libraries be broken up every time a company changes its station? Under existing regulations a company may carry almost the same set of books for years. If post libraries were left intact, the soldier would be the gainer rather than loser in the end, since he would not always have the same familiar books staring him in the face.] And it could not be considered a very great hardship were an officer required to buy from his own pocket the requisite text books.

The trouble in this matter lies pretty deep. It is, to speak plainly, that professional ignorance is no disgrace, and too many officers in our own Army appear to think there is no necessity for anything beyond drills.

The general school at Fort Monroe is probably the best one we have ever had, and its possible benefit can hardly be overestimated. It ought not to exhaust itself, however, by striving to make up for the deficiencies and shortcomings of all the post schools, nor adapt its standard to the lower grade of intelligence. The whole subject of instruction should be brought under one comprehensive plan; and here, as in almost every view we take of our position, is seen the need of a head or chief, to systematize and direct.

It would not be a difficult matter, as it seems to us, to make the post schools so many preparatory schools in which officers may be prepared to enter upon a more extensive course at the general school. The standard of admittance into the artillery is so low that there is scarcely any point at which we may begin with some officers, and say, here we have a foundation upon which we can commence to build. It is useless to enter upon descriptions of the pendulum-hausse lines and planes of sight and fire, to an officer whose only idea of a plane may be that it is one of a carpenter's kit of tools. It is useless to try to teach him the application of the formula for determining the number of balls in a pile, when the very terms in which the formula is worded are a mystery to him. Yet if we are to have a certain amount of knowledge regarded as essential to the position of an artillery officer, and this knowledge is to be communicated to him after his appointment, primary instruction is as necessary as in any child's school. It is absolutely impossible to get any correct and lasting notions concerning gunnery, without some preliminary knowledge of the elementary mathematics. Short as is the course at the Artillery School, it is found that more real and substantial progress is made at the end of the year, by devoting the first three months to elementary geometry and algebra, than by entering at once upon the course of ordnance and gunnery. The fact that these branches are taught has sometimes been made the ground of ridicule and complaint, but it can-

not be avoided. One must learn to walk before one can be taught to run. Either the instruction in the artillery must sink to the dead level of tactics and mechanical manoeuvres, or some elementary instruction be given to those officers entering the service without preparation. The natural and proper remedy would be in fixing and maintaining a higher standard for appointees in the artillery, but this will never be done with our present organization. A spasmodic effort will perhaps be made in this direction from time to time, but as soon as a pressure comes the flood-gates will be opened, and all barriers to admission swept away. Until the fact is broadly recognized that the drills and the command of men are but the A, B, Cs of our profession, so long will the necessity exist of a constant struggle against ignorance and inefficiency.

Granting then that a certain amount of elementary instruction must be given to a considerable proportion of the junior officers of artillery, the question recurs. Should this bear in any degree upon the general school? This question may be asked, not only of the theoretical but of the practical instruction. Instead of occupying the allotted time at the Artillery School almost entirely with target practice, ought not this to be left more generally to the post schools and attention directed particularly at the general school investigations of various problems in gunnery, the use of chronoscope and pendulum; the effects of windage and eccentricity; the determination of specific gravities; the use of plane tables and other surveying instruments; the estimation and measurement of distances; and various problems in practical engineering directly connected with artillery?

It seems hardly worth while to discuss at length the relative merits and advantages of post or regimental schools and a general school. Yet it is sometimes asserted that the former can accomplish all that is needed for the artillery, and the latter exists rather by sufferance, being regarded constantly as rather an experience than an established fact. Observation and experience has, or ought to have, already settled this question and settled it in accordance with the deduction of reasoning.

It is not easy to get the requisite number of competent and suitable instructors for one school, but the difficulty is magnified many times in getting a suitable set for each regiment.

It is possible to collect a creditable artillery library and museum for one school, but almost impossible to create five.

Neither is it practicable to find five suitable posts for the necessary artillery practice, and not only would there be a great loss of efficiency on this account, but the expense would be greatly increased.

A general school furnishes the appropriate place at which to try all new inventions, experimental carriages, etc. Should the general school be superseded by regimental schools, this source of instruction and improvement would be lost to at least four, and probably to all of the regimental schools.

A general school serves to establish and maintain a certain uniformity of instruction, and acts powerfully in developing an *esprit de corps*, by bringing about an acquaintanceship and intercourse among officers of different regiments, who might otherwise rarely or never meet.

Yet much there is in our situation to encourage idleness and induce torpor, it would seem that affairs are worse than they need be. Lack of occupation, mental rather than physical, is the bane of our service. The condition of large numbers of officers is