

## CONTENTS OF No. II, VOL. VI.

POETRY.—	Page.
The Farewell,.....	130
EDITORIAL.—	
Field Fortifications.....	124
Target Practice and Fighting.....	124
Gladstone and the Washington Treaty.....	127
Floating Batteries.....	127
Deplorable state of the British Navy.....	128
British Army Rifle Competition.....	129
News of the Week.....	121
CORRESPONDENCE.—	
From Montreal—H.....	124
ANSWERS TO CORRESPONDENTS.—	
"A Volunteer".....	129
SELECTIONS.—	
"Our Future Ironclad Fleet,".....	121 152
The Attack and Defence of Fleets.....	122
The Armament of our Forts.....	122
A Dying Nation.....	123
English Sea Forts.....	123
Revolution in Guns.....	123
Coast Fortifications.....	123
Canadian Silver Coin.....	124
The Royal Military Academy, Woolwich.....	124
A Marine Novelty.....	124
The Treaty of Washington.....	125
Military use of Railways.....	129
The Autumn Manœuvres.....	130
Opinions of the Press on the Geneva Arbitration.....	132
Value of English Volunteers.....	132
Foreign, Military and Naval Items.....	132
MILITIA GENERAL ORDERS.....	125

S. M. PETTENGILL & Co., 37 Park Row  
New York,

GEO. P. ROWELL & Co., 40 Park Row, New  
York,

Are our only Advertising Agents in that city



## The Volunteer Review,

AND

### MILITARY AND NAVAL GAZETTE.

"Unbribed, unbought, our swords we draw,  
To guard the Monarch, fence the Law."

OTTAWA, MONDAY, MARCH 18, 1872.

The term logistics, the practical art of moving armies, is derived according to Jomini from the title of an officer in the French service known as *Major General de logis*, whose position and duties were analogous to that of Quarter-master general (when that office existed) in the British service.

The science technically described by this term consists of the following local divisions:—

The preparation of all material necessary for putting an army in motion.

Preparing all plans for marching, works of attack or defence.

Devising the measures necessary to be taken for security of posts, &c.

Reconnaissance of every description.

Arranging marches, guards, regulating the manner and time of halts.

Giving proper composition to advanced guards, rear-guards, flankers, and all detached bodies.

Prescribing forms and instructions for subordinate commanders or their Staff officers, relative to position and duties.

Indicating to advanced guards and other detached bodies, the points of assembly, and arranging for their support.

Providing for the march of trains, baggage, munitions, provisions, ambulances, and the whole material of an army.

Taking precautions for order and security on the march and for the halts and parking of the trains.

Making provision for successive arrivals of convoys, collecting means of transport and regulating their use.

Directing the establishment of corps and adopting regulations for their safety, good order and general police.

Establishing lines of communication, lines of operation, and looking out for preserving the communications of the army with its base of supply.

Organising hospitals, conveyance for removal of sick and wounded, and workshops for repairs.

Keeping accurate records of all detachments, looking after their movements and return to the main column, giving them direction and centres of action and forming strategic reserves.

Organizing military police.

In siegeworks assigning the strength of the force in the trenches, preparing the plans of attack and supplying the means of carrying on the operations.

In case of retreat prescribing the order of march, relieving the rear guard, taking up positions necessary to cover the movements, preserving order, making provision to save munitions and material from falling into the hands of the enemy, preventing straggling and making dispositions to check pursuit.

Planning and providing for the sustenance and comforts of the troops in cantonments.

It will thus be seen that the science of "Logistics" covers a very important part of the whole art of war; without a thorough knowledge of all its details the most elaborately planned strategy is sure to fail, and some conception can be formed of the important and onerous part the staff of an army plays in its success or failure.

Those details can be arranged in two grand divisions; the first, the supply of munitions and material; the second, giving the troops with their whole equipment mobility.

Without a thorough reconnaissance the best planned expedition must be a failure and the initial step in the advance of the troops must be taken by the Engineer.

From the fact that a body of troops will necessarily occupy much ground—that marches will rarely exceed fifteen miles per day—that roads are of limited capacity, and that a column unable to deploy is a helpless mob; it follows that a thorough knowledge of every foot of ground to be passed over is a pre-requisite of a campaign.

The most important point in this necessary reconnaissance is to ascertain how many rivers, streams, creeks, or water courses are

to be passed—the structures by which they are crossed—the material of which those structures are constructed—their strength or the weight they will bear—their capacity and facility with which they can be destroyed or restored, the capabilities of their sites for defensive and offensive operations are only parts of the knowledge which must be acquired. In addition, the science and skill necessary to supply the means for crossing the water courses in the line of march must be of a high character indeed, for bridge building has been at all periods of the world's history a slow, difficult, costly, and laborious process, while the exigencies of military service requires that it should be accomplished with the minimum of time, labor, and expense.

In order to accomplish this effectively, the establishment of a corps for the especial duty of bridge construction is the first necessity, and that corps should merely supply the higher intelligence which could design and carry out the construction of those structures in detail.

Military bridges may be classed as follows:—floating bridges, trestle bridges, pile bridges, raft bridges, rope bridges, and structures of a greater or less degree of permanence built on crib work piers or abutments.

Floating bridges comprise all structures built on pontoons, boats, scows, casks, or other material whose stability is dependent on anchorage; and buoyancy on the specific gravity of the material employed.

Trestle bridges are dependent for their stability on framed timbers reaching to and resting on the bottom of the river or water course.

Pile bridges are structures built on piles driven into the bottom of the river.

Raft bridges depend for their flotation on rafts of dry wood anchored at proper intervals, and in this country could be extensively used.

Rope bridges are constructed on the principle of suspension bridges, points must be found considerably higher than the stream, between which the cables could be stretched and the rest of the operations can be easily effected.

The art of passing armies over great stretches of water by means of floating bridges is of high antiquity, Darius caused such bridges to be laid over the Bosphorus and Danube, twenty-three centuries ago, and Xerxes caused the most celebrated of all those structures to be laid across the Hellespont for the purpose of facilitating the invasion of Greece. In the celebrated *Anabasis* of the Greek auxiliaries under Xenophon from Persia they are said to have crossed the Tigris by a floating bridge, and Alexander is represented to have had a regular bridge train attached to his army, the practice of passing troops over rivers on structures supported on inflated skins of animals is of great antiquity, and the Romans improved on the idea, so far as to