



# THE VOLUNTEER REVIEW.

AND MILITARY AND NAVAL GAZETTE.

DEVOTED TO THE INTERESTS OF THE MILITARY AND NAVAL FORCES OF BRITISH NORTH AMERICA.

Vol. I.

OTTAWA, MONDAY, JUNE 3, 1867.

No. 22

## ODE TO CANADA.

Canada, faithful! Canada fair!  
Canada, beautiful, blooming and rare!  
Canada, happiest land of the earth!  
Hail to thee, Canada! land of my birth!  
Land of fair freedom, where bought not and sold,  
Are sinews and sorrows, for silver and gold!  
Land of broad lakes, sweet valleys and plains!  
Land where justice for rich and poor reigns!  
Land of tall forests, famed rivers and rills!  
Land of fair meadows; bold mountains and hills!  
Land where a man is a man, though he toil!  
Land where the tiller is lord of the soil!  
Land where a people are happy and free—  
Where is the land that is like unto thee?  
Thou hast for the stranger that seeketh thy shore  
A smile, and a cheer, and a welcome in store;  
The needy, relief; and the weary, repose;  
A home for thy friends; and a grave for thy foes.  
Thy nobles are those whose riches in store  
Is the wealth of the soul, and the heart's hidden love;  
They cringe to no master, they bow to no lord,  
Save Heaven's, each night and each morning adorned.  
Land of swift rivers, sweet-gliding along!  
Land of my pride, and land of my song!  
Canada, prosperous! Canada, true!  
Canada loyal, and virtuous, too!  
Canada, happiest land of the earth!  
Hail thee, forever, sweet land of my birth!

## GUNNERY:

A LECTURE DELIVERED BY CAPT. BRANCKER, R.A.,  
BEFORE THE MONTREAL DRILL ASSOCIATION.

WAR has been considered as a science from the earliest ages, and the ingenuity of the talented has ever been taxed to render it as perfect as possible. It is true that "man's earliest weapons were fingers, teeth and nails, and stones, and fragments from the branching woods;" but these soon gave way to others more calculated to decide unequal and protracted contests. The bow, the sling, the javelin, the spear, the sword, and the axe were among the earliest weapons used. The inhabitants of the Balearic Islands were famous for their proficiency in the use of the sling. The Greeks and Persians, in addition to these arms, used chariots armed with scythes. The Roman armament differed but little from the Greek; the early Saxon was very similar, as was also that of the Norman. To the last

is awarded the invention of the crossbow; and it is also asserted that they invented a species of field artillery, from which they were in the habit of firing stones and darts, and arrows headed with a combustible matter to set fire to shipping.

The artillery proper of the ancients, as we may term the engines they used for projecting masses of stone and such like material, reached to wonderful perfection, and the velocity with which they threw their missiles is only surpassed by the power of projection of the more portable and simply constructed artillery of our own day. Great doubts exist as to by whom or at what period gunpowder was invented. However, it may be taken for granted that guns fired by its agency were first used at the beginning of the fourteenth century. We should, however, greatly err were we to suppose that gunpowder, on its introduction, immediately superseded all other kinds of military engines. Far from it; it formed almost only a nominal portion of the artilleryman's resources, and would seem for some time after to have possessed far more of a moral than a physical effect. Its ingredients were scarce and very costly, and were sparingly used, and only mixed when required for immediate use. The difficulty, however, of managing such engines as I have before alluded to soon turned the attention of engineers towards improving gunnery, the simplicity of which promised great results, and its novelty and mysterious action possibly gave it an additional interest in their eyes. The crazy construction of the early guns made it necessary to load them with the weakest powder. The most serviceable seem to have been those made of iron bars soldered together and bound by hoops, or of sheet iron rolled and similarly secured. They mostly were breech-loaders, varying in size, shape and material, according to the fancy of their inventors, who were of course ignorant of any of those laws which governed later on. The difficulty of adapting the breech-loading system—a difficulty still experienced now-a-days to the heavier calibres—no doubt originated the plan of mounting several tubes in one frame. The projectiles equalled in variety the guns that propelled them. Darts, arrows and bolts, bullets of stone, iron, bronze and lead, fire-balls, cases of shot and stones were among their number. Artillery thus equipped proved at first cumbrous and unwieldy, while the frequent bursting of the guns made it dangerous to those who fired them; consequently it exercised but a very limited influence in war. During the century subsequent to its invention, but little result in-

deed could ensue from dragging pieces into position which, owing to their weight, had to remain stationary during an action, and frequently were discharged but once, and that only when the enemy was foolish enough to cross their narrow line of fire. In sieges, the defenders were certainly able to shatter the light works of the besiegers, but the projectiles of the latter, owing to the weakness of the powder that propelled them, made little or no impression on their walls, which seem to have been more shaken by the recoil of the guns mounted on them than by the fire of those brought against them.

Although the casting of ordnance and fortification made wonderful progress towards the middle of the sixteenth century, field artillery still remained very useless, and armies did not care to encumber themselves with material which a general want of roads rendered a decided obstruction to their movements. In the seventeenth century, however, Gustavus Adolphus introduced some really serviceable field guns, made of leather and coiled rope over a cylinder of copper. These were lighter than what had been before used. He seemed the first to appreciate the power gained by rendering field artillery mobile and using it in masses. The concentration of a superior force on a decisive point of battle has been the object aimed at by all generals from Epaminondas at Leactra until the present day. Gustavus Adolphus saw the superiority of artillery to all other arms. For this purpose his example was followed by Marlborough at Malplaquet. On the memorable day at Wagram, when fortune seemed about to forsake the French, one hundred pieces, launched forward by Napoleon in close column of batteries, deployed into line, and opened a most irresistible fire at their enemies. Indeed, this tactic has been again illustrated by Napoleon III. on the fields of Solferino and Magenta, and will be followed no doubt, whenever practicable, by all generals for the future. In 1740 a curious experiment was made at St. Petersburg with guns cut out of solid ice, which were fired several times without bursting with balls of the same substance. Here is a lesson for Canada.

At the conclusion of the Seven Years War we find Gribeauval commencing that new system which has been followed by modern artillerists. He separated field from siege artillery, decreased the number of calibres, established uniformity in carriages, introduced iron axletrees, higher limbers, cartridges, elevating screws and tangent scales. But the whole system of ordnance is now undergoing a second revolution, in consequence of the rifled guns, with their elon-