

only for general readers, and that they do not profess to treat the subject in a scientific or exhaustive manner. The sole purpose has been to describe, in language as simple as the subject permits, the main features of army organization for the benefit of those outside of the army, omitting many details that would not interest them, and not attempting minute accuracy when a general description conveys the idea sufficiently well for the special purpose in view.

Written as these papers have been in the few leisure moments occurring while traveling, with very little in the way of books of reference at command, they are comparatively imperfect, but not too much so, it is hoped, to accomplish their main object, which is to convey to such of the general public as may take the trouble to read them a fair understanding of the structure of the armies that have played so important a part in the affairs of modern Europe. Such an understanding will suffice to convince most men that a modern army can not be improvised out of nothing, and that a mass of brave but undisciplined and uninstructed men does not form an army. It will, moreover, make it quite clear that any nation which can not be perfectly assured of perpetual peace, which can not learn the secret of keeping closed forever the doors of its own special temple of Janus, must make up its mind to maintain a military academy and a standing army which shall not only suffice for the ordinary demands of peace, but even be so much larger as to furnish a nucleus commensurate with probable wants in time of war.

A LETTER FROM BAZAINE—THE MARSHAL HOPEFUL.

New York Sept 12—The *Herald* to-morrow will publish a letter from Marshal Bazaine, addressed to Mr. Bennet, which was received by cable to-day. Bazaine thanks the *Herald* for its impartiality, and the American and English press for its marks of sympathy. He complains of the injustice of the verdict of the court martial presided over by a Prince of the blood who had never conducted any military operations of importance. He looks to time and history for justification; he bitterly reproaches MacMahon and makes comments of gratitude to ex-President Juárez, who defended his return from Mexico. As regards Mexico, the Emperor had to choose between evacuation and a war with the United States. To avoid a conflict he gave the order to return, but Maximilian was unwilling either to return to Austria or to abdicate, although he well understood that Napoleon would not sustain a struggle with the United States. Maximilian in spite of wise counsels preferred to seek an honorable death. That is the truth, and that is the extent of each one's responsibility. For my consolation the thought remains that even Lafayette passed through ordeals more terrible than mine. In conclusion, the Marshal says—I am far from being rich, but besides my liberty there still remains to me immeasurable treasures for my companions. I have an American lady who gives me the strongest proofs of devotion. I have children I adore, a brother and some friends who have remained faithful. My position is not hopeless, it need should be I would follow the example of the conquered Richmond and take refuge in labor. I do not look on my military career as ended. I enjoy health and bodily vigor. Some duties remain to be fulfilled, and I shall fulfil them when the time comes. I hope fortune will grant me a last smile as she often does to old soldiers.

CORRESPONDENCE.

The Editor does not hold himself responsible for individual expressions of opinion in communications addressed to the VOLUNTEER REVIEW.

To the Editor of the VOLUNTEER REVIEW.

SIR,—I have received some New Brunswick papers; some of which give an account of the scores, and also of the kind of targets used. They have fired there under the Wimbledon regulation, while Nova Scotia and Quebec have fired the old way. Is it that New Brunswick is so far ahead of us in keeping up with the times, or is it that our marksmen can hit a big target easier than a small one. I have come to you (Mr. Editor) for information, and I trust you may give this short epistle more than a passing glance. First, have the council gone out of their minds, to go to work and fire the test this Autumn and select the men that may, next spring, be gone out of the country; or perhaps, in a position that will have compelled them to remain at home? The idea is perfectly absurd, and no wise volunteer will entertain for one moment such a childish undertaking. There may, perhaps, be men who will say, I can go next summer, and, when the time comes, are thousands of miles out of the country.

I believe in the old proverb, "a bird in the hand is worth two in the bush," which applies to this case exactly. When you want the marksmen, hold your competitions the same as have always been done, and you will know where to find them. I don't believe in the way the team was selected for 1873 by any means. This putting them into a hat and tossing them up should be entirely obliterated. Let us do everything above board, and give the volunteer to understand that there is no partiality shown to any particular individual. I remember reading an account in your paper last spring from a New Brunswick correspondent, who stated that they had been firing all spring in anticipation of a match which never came off, and I presume he had good reason for writing, for in the selection they took a man that never won a prize at Wimbledon, which is something New Brunswick regrets, as there are some splendid shots in that Province.

CRACK SHOT.

Montreal, Sept. 12, 1874.

For a long time Prof. Abel, at Woolwich, has been conducting experiments upon gun cotton; and very lately he has obtained results of unusual interest. In the first place, he finds that the explosion of gun cotton is, so to speak, sympathetic, varying according to the manner in which it is begun. If, in the form of yarn, the gun cotton be ignited by a spark, it smolders slowly away, a flame causes it to burn rapidly, fired as a charge, it behaves with corresponding vigor, and,

exploded by a fulminating powder, it acts with tremendous violence. Every fulminating powder, however, will not explode gun cotton, it seems to need a peculiar set of vibrations, to which alone it will respond. Fulminating mercury, the ordinary powder of percussion caps, seems the best agent for this purpose. If gun cotton, compressed into cakes, be arranged in a line, and a cake at one end detonated by the fulminate, the detonations follow each other along the line with marvelous velocity; a velocity, according to the electric chronoscope, of about 20,000 feet, or nearly four miles per second. When we recollect that a rifle bullet usually travels only 1,300 feet, and sound only 1,090 feet, per second we can partially realize extraordinary velocity. Only the speed of the planets in their orbits, and the rapidity of light and of radiant heat can be compared with it. Another remarkable feature is that, by means of fulminating powder, wet gun cotton may be exploded as rapidly as dry. Wet gun cotton has hitherto been considered absolutely non explosive, and indeed is so, as far as regards flame, thrown upon a fire it acts like a wet blanket. But to the fulminating powder, the cotton, though soaking wet, responds instantaneously. A quantity of it enclosed in a common fishing net, and provided with a dry primer and a fulminate fuse, will explode under water as violently as if confined within a water tight steel case. Here opens a new field for the makers of submarine torpedoes. Some other new applications of gun cotton have been suggested. If several mines are to be exploded simultaneously, they can be connected by lines of gun cotton cakes, and the velocity already mentioned made useful. If islands are to be destroyed, discs of gun cotton explode against them will do the work effectually. And, if a large tree is to be cut down, a necklace of such discs hung round the trunk will, when detonated, perform the work as thoroughly and as neatly as it could be done with an axe.

A Correspondent of the *London Engineer*, writing from Chili says. Owing to the aggressive attitude of the Argentine press with the recent establishment of a block house fort at the mouth of the Santa Cruz river near the Straits of Magellan, and the approaching completion for the Argentine Government of armored turret ships in England, the Chilians have determined to bring out with all dispatch the sheathed corvettes building for them in Hull, and the armor plates brought from England in the *Cacabuco*, and *O'Higgins* are to be at once used, to convert other craft into iron clads. The officers of the Chilean Navy are much affronted at the proposal to take delivery of the corvettes in Valparaiso, as they deem that the navigation of them to that port by English officers and crews casts slur on their navigating abilities. It is however, certain that their cruising is very restricted, and we hardly know their picturesque flag in European waters. The Montevidean papers say that Captain Semmes, with the first officer of the late *Albatross*, are to hold foremost positions in the fleet of the Argentines, who seem strongly inclined to set up their backs about territorial questions with Brazil and Chili.