

CORRESPONDENCE.

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

NOTES ON THE NEW FIELD EXERCISE, 1870.

To the Editor of the VOLUNTEER REVIEW.

SIR:—In your issue of the 12th inst., you devote about two columns to what is there called "Notes on the new Field Exercise, 1870: By Major S. H. F. Dartnell, late 34th V.M." Having made a comparison I find these purported notes copied almost word for word from "A Key to the Field Exercise, 1870: By Malton," which book can be purchased at Ottawa, Toronto or Montreal for thirty cents. The one before me being the second edition, a large number must now be before the public, and as each field officer and Captain of the Volunteer force have been supplied with a copy of the new Field Exercises from the Department, and as soon as a sufficient number can be procured from England, each subaltern will receive one, I cannot see what advantage can accrue from publishing these *stolen notes*, unless you favor your readers with a copy of "Malton's Key," giving the author credit for his work which has been done in his usual clear and concise style.

Major Dartnell may be very clever, but I fear tricks of this kind will not impress that fact more favorably upon those in power or those out of power, and it seems strange that Major Dartnell should undertake to catechise the officers of a force to which he does not belong, while the Adjutant General of Militia, a perfectly practical officer, should be content by handing them the "Red Book," from which all can learn drill.

Respectfully yours,
Dec. 15th, 1870. A VOLUNTEER.

To the Editor of the VOLUNTEER REVIEW.

SIR:—The query contained in the latter portion of the letter from "Volunteer," dated Menford, Dec. 1st., 1870, has induced me try to answer some portions thereof relative to trajectory. He says "Supposing a rifle fired at the 900 yards range along a level surface at the bull's eye of the target at the same height from the ground as the muzzle of the rifle," and asks, "1st. What will be the height of the ball above the line from the muzzle to the bull's eye at the end of each 100 yards of the range." Now, this involves a great amount of calculation and I, like yourself, have not the time to go all through it, but I have a work by me which gives what "Volunteer" wishes to know up to 300 yards; it is as follows:

100 YARDS.

Distance from muzzle.... 50 75 100 yds
Height of bullet..... 9 6½ 0 in.

200 YARDS.

Dist. from muzzle 50 75 100 125 150 175 200
Height of bullet 11½ 14½ 19 21 20½ 10½ 0

300 YARDS.

Distance from muzzle. 50 100 175 200 250
275 300 yds.

Height of Bullet. 17½ 33 43 39 24 14 0 in.

This will give "Volunteer" some idea of the rate at which a ball describes its curve. According to the Musketry Instructions the culminating point is between one-half and two-thirds of the distance, which the example I have quoted bears out, but differs therefrom in the greatest height of trajectory by 9 inches at 100 yards, 3 inches at 200 yards, and 5 inches at 300 yards, in each case my quotations being the lowest. "2nd. What is the time taken by the ball to traverse the 900 yards. Experiments have shown the time to be 3.160 seconds, and it has been found that with shot of mean windage, and powder of mean strength a charge of one-third the weight of the ball gives an initial velocity of about 1600 feet per second; to find then the velocity given by any other charge we must divide three times the weight of the charge by the weight of the ball, and multiply the square root of the quotient by 1600; the product will be the velocity in feet, or the space the shot passes over in the first second. Velocities given by large charges are reduced to those by moderate charges; for instance, those given by half the weight of the shot are reduced to an equality with those by one third, after passing through a space of little more than 200 feet. "3rd. What distance will it traverse in each second, measured on the horizontal line?" I give an extract from a table in the work I have before quoted from, viz:

100 yards in	.325 Sec.
200 " "	.650 "
300 " "	.975 "
400 " "	1.300 "
500 " "	1.625 "
600 " "	1.975 "
700 " "	2.350 "
800 " "	2.750 "
900 " "	3.160 "
1000 " "	3.600 "

"4th. What height above the target would the direction of the line of culmination be when sighted for the 900 yards range." The Musketry Instructions give this as 44 feet, which would probably be when about 600 yards from the firing point. I will endeavour, if agreeable, to enter more fully into and give some more lengthy particulars of rifle shooting some other time. In the meantime, I am,

Yours, &c.,
BUSHWHACKER.

FROM MONTREAL.

(BY OUR OWN CORRESPONDENT.)

Lieut. Featherstone of No. 1 Troop Cavalry, died very suddenly and was buried with military honors on Friday. His late comrades, with several Volunteer and Militia officers and the Grand Trunk Band, followed the remains to their resting place. Deceased was a good officer, a great friend with the men, and will be much missed by

No. 1 Troop. This Troop was inspected on Monday—the muster was small.

It is a matter for congratulation that the Military School is to be re-opened and under such favorable auspices. The names of Colonels Smith, Bacon, Harwood, and D'Orsonnes are quite sufficient to show that the business will be energetic and well performed. The Vics. talk of getting up a private class of instruction for their officers, to which, with their usual courtesy, they will, I believe, invite officers of other corps desirous of profiting by it.

Major Labranche meditates a private class in addition to his other duties at the school. So with all these, officers will not lack opportunities to post themselves in their duties. Some very important matters are being discussed by the Volunteer officers of this city, and of which plenty will be known hereafter. It is presumed that some monster petition, or rath protest, to Government is being prepared, at any rate there are several matters that are by no means satisfactory to them and for which they seek redress. They believe that Government will act toward them in a generous spirit after being acquainted with what reforms and changes may be deemed requisite. Among the properties recently handed over to the Canadian Government by the Imperial military authorities were the Quebec Gate Barracks and the land surrounding them. It is the intention of the Government shortly to dispose of this property. St. Helen's Island will be retained by the Government for the keeping of military stores, and Logan's farm will be retained as a site whereon, should they be required in the future, barracks may be erected.

No. 5 Co., Montreal Garrison Artillery, presented Quarter-Master McDonald with a sword as a token, &c. The Artillery give a grand concert and ball on the 26th instant. Staff Sergeant Knox is in town from Red River. B.

RIDING SCHOOLS.

To the Editor of the VOLUNTEER REVIEW.

SIR:—Now that the Military Schools are to be opened again, and that we are also to have Schools of Gunnery, I sincerely hope that the Cavalry and Field Artillery branches of the Volunteer force are not to be neglected, but that they will have at least equal facilities afforded them to acquire a knowledge of their drill. While the Cavalry Schools in connection with the 13th Hussars were open, they were very successful and always full, and only those who have experienced it can tell what an advantage it was to have a troop of cavalry leavened by even five or six men who had been through it; and the writer can speak personally of the great benefit the practical knowledge he acquired at the School was, and of the confidence, both in riding and drill, it gave him which he otherwise would not have had. For Cavalry and Artillery, as well as for