

sented by Messrs. John Martin, Sons & Co. : Montreal Garrison Artillery, 1st Prince of Wales Rifles, 3rd Victoria Rifles, 5th Royal Scots, 6th Fusiliers.

Some enthusiasts had hoped that the government would see fit to arrange the rear gallery of the drill hall as a Morris Tube gallery, as suggested by the Military Gazette, and that a neutral range could thus have been found. No move has been taken in the matter as yet however.

The shooting on this match will therefore take place in the galleries of the 6th Fusiliers, Col. Burland having kindly offered it for the purpose. Shooting will begin at 8.15 sharp, on Saturday the 16th, and four targets will be available, notwithstanding which, it will take two weeks to complete the shooting.

#### Mr. Frederic Villiers on the Japo-Chinese War.

Mr. Frederic Villiers is announced to lecture on his personal experience in the Japo-Chinese war, at the Windsor hall, Montreal, on the evening of the 22nd instant. While his appearance is looked forward to with widespread interest by the general public, it is naturally to military men and to those interested in the science of modern warfare that this lecture will specially appeal. The great war now raging between Japan and China is the first conflict of importance since the Franco-Prussian war. In the interval of twenty-five years that has elapsed since the latter struggle, great strides have been made in many departments of military science; experiments have been made with more or less success in small arms; developments of a remarkable nature have taken place in the construction and handling of artillery; methods of mobilization have been greatly improved and field tactics have undergone important modification. The present war is an object lesson in the effects of the changes and improvements in the modern warfare, for the Japanese, with their singular capacity for assimilation, have, in a short time, modelled their army with exactitude on the most approved European plan.

On the other hand, the dramatic side of this war is incomparably more terrible and effecting than that of any combat between civilized powers. The veneer of civilization and culture vanished with the sight of blood, and in the massacre at Port Arthur the world heard of atrocities that made the blood run cold. It is of these varied scenes of war that Mr. Villiers speaks. He is a man of proved and undaunted courage, and throughout these days of fighting and nights of rapine and butchery, he calmly noted, with pen and pencil, what came under his eye. His power as a lecturer is well known, and his vivid narrative is heightened by a series of splendid stereopticon views taken from kodak snap shots of his own.

He pictures the normal life of Japan and the ceremonial of the Mikado's palace; the approach to the scene of

fighting marked by ghastly evidences of past combat, in the huddled corpses by the wayside and desolated homes. At last he reaches Port Arthur, and from this point the narrative is the most exciting ever listened to in a lecture. Mr. Villiers was in the thick of the massacre. He saw the helpless citizens hacked down, and the flying soldiers butchered till the streets ran with blood, while a few yards away the Japanese officers calmly cooked their meals. In great personal danger, he never ceased to observe and to note, and the condemnation of his appalling experience makes a story absorbing to hear and impossible to forget.

Mr. Villiers has been received with immense enthusiasm by the audiences who have heard this remarkable lecture, and will undoubtedly repeat this experience here.

The lecture, as befits its military character, is under the patronage of Colonel Houghton and the officers of the district.

#### Muzzle Velocity of Shot.

In the course of his first Cantor lecture, delivered before the Society of Arts on "Explosives and their Modern Development," Prof. Vivian B. Lewes referred to the method of determining the muzzle velocity of shot which is effected by means of the chronograph. He said:

"Two screens are arranged, one about 120 feet from the muzzle of the gun, and the second 120 feet beyond the first. These screens consist of wooden frames strung with fine copper wire, the disruption of a single strand of which is sufficient to break the flow of the galvanic current. In the Boulenger chronograph, a current from a battery of eight Bunsen cells flows through these wires and back to the instrument house, where the wire from each frame is coiled round a separate soft iron core and converts it into an electro-magnet, each of which attracts and holds a rod of steel. The electro-magnet in connection with the second frame is fixed at a lower level than the electro-magnet connected with the first, and carries a short rod with a weight at the bottom, while the first magnet is at a much higher level, and carries a longer rod. The current being allowed to pass through both electro-magnets, the rods are suspended in position. By pressing a key both circuits can be simultaneously broken, with the result that both the rods are liberated and drop down guide tubes; the short rod strikes a catch and causes a knife edge to be brought against the longer falling iron, and to make a nick in it. When both rods are liberated simultaneously, this nick occurs at a definite place. The current is then allowed to pass, the rods hung on the electro-magnets, and the gun containing the charge, the power of which is to be tested, is fired, the projectile passing through the screens and breaking the current by cutting the wires. Under these conditions the long rod is liberated a fraction of a second sooner than the shorter rod, the result being that the nick of the knife blade is no longer in the original place. By measuring the distance between the two nicks, and knowing the length of time to which this is equivalent, allowance being made

for the time taken in liberating the knife blade, etc., the interval of time which elapses while the projectile is passing between the screens can be calculated, and, being corrected for the distance of the first screen from the muzzle, gives the muzzle velocity of the projectile."

#### The Crimean War.

##### The Reminiscences of Dr. Russell.

Dr. W. H. Russell, the *Times* correspondent during the Crimean war, has just published a volume called "The Great War in Russia. The invasion of the Crimea. A Personal Retrospect of the Battles of the Alma, Balaclava, and Inkerman, and of the winter of 1854-55."

The work abounds not only with strong speaking, but with good stories. It effectually disposes of much of Kinglake's special pleading, and it holds up before this generation the ignorant self-sufficiency of staff officers who had learnt less from the Peninsula to the Crimea than the Duke of Cambridge has learnt from Crimea until to-day. His Royal Highness is a relic of the self-same system of appointment to important posts of incompetent men which wrought so much avoidable disaster in the Tauric Chersonese. But when the disasters came, when they had been shown to be due to wilful blindness and sheer pig-headedness, there was nobody punished for them; nay, the authors of them, after they had been bared to the sight of the nation, were chosen for further high promotion and good billets as long as they were able to sign receipts for their pay. It is not without use even to-day to read the shameful story, though, much as reform is still needed in the War Office, we may hope affairs can never be so maladministered again. Yet, with Sir Charles Cameron's exposure of how the money goes in recent wars, and with our experience of what happened seventeen years ago on the Afghan lines of communication, we must not be too sure.

We commend the book for its serious side, but it will be an immense favorite for its humorous side. Missirie, who was alive till within the last four years, but an old man broken with the storms of fate, kept a hotel in Pera, at which Sir Colin Campbell stopped. He had a double bedroom and was charged as for two persons. So the general engaged "a hideous mendicant from the bridge at Galata" to share the accommodation, and "the Greek was no match for the Scotchman." At Varna Dr. Russell's tent was "a fly in the pot of military ointment" of the Duke of Cambridge, who seems to have regarded the Press then with the same hatred as he does now. There was a discreditable panic in the camps of the allies the night before the move on the Alma, several of our own people being hit instead of "the Cossacks" who were not there. When the advance took place there were no transports for tents or sick, our ambulances being deliberately left behind by a staff officer who could not see why "the deck should be lumbered up with such things." Even Genera