

No. 5 Company—Lieut. Bowie (in command), four sergeants, twenty-eight men.

No. 6 Company—Capt. John Hodgins, Lieut. Taylor, three sergeants, thirty men.

Band and buglers, forty-four.

Staff-sergeants, eleven.

The Queen's colour was borne by Capt. Aumond, late of the Guards, and attached for the inspection; and the regimental colour by Lieut. Roper.

The inspecting officer, Lieut.-General Sir Fred Middleton, arrived shortly before eight o'clock, attended by Capt. Wise, A.D.C. He was received with a general salute, the regiment presenting arms and the band playing. Accompanied by his aide and Col. Tilton, General Middleton rode past the line in front and rear, closely observing the condition of the uniform and equipment. He then took position at the saluting point, which was opposite the northern entrance to the square, and the regiment marched past, in column, and then in quarter column, in quick time and at the double. For the two first named the band played the regimental march, the inspiring strain of "The British Grenadiers." The march past was splendidly performed by all the companies, the weaknesses common in the past to those in the centre companies being looked for in vain. Such uniform excellence has seldom been shown.

The regiment having again been formed in line, went through the manual exercise under direction of Major Todd, and then the skirmishing exercise under the same officer. The firing exercise, directed by Major Toller, came next, and then Captain W. E. Hodgins, the adjutant, put them through a number of battalion movements.

In the drill hall the muster rolls were called in the presence of the Paymaster and of Mr. H. O'Meara, accountant of the Militia Department. This tedious business over, the men were addressed by Col. Tilton. He expressed his gratification at the faithful manner in which they had drilled in anticipation of this inspection, and that they had succeeded in so creditably developing the power latent in the regiment. He was glad to be able to announce to them that General Middleton had expressed himself as thoroughly well satisfied with the inspection.

After the inspection, Lt.-Col. Tilton and officers were "at home" at the officers' quarters. The guests included Lieut.-Gen Sir Fred Middleton, Colonel Powell, Adjutant-General of Militia; Colonel D'Orsonnens, Commandant St. John's Royal School of Infantry; Lt.-Col. Ross, former commanding officer; Lt.-Col. White, 43rd Carleton Rifles; Lt.-Col. Irwin, Inspector of Artillery; Captain Wise, A.D.C., and a number of other friends of the regiment, the ladies being in the majority.

The Maxim Gun.

(Lyttleton, Eng., Times.)

The arrival here of one of the famous Maxim machine guns of automatic fire takes the mind back twenty years, to the time when the French "Mitrailleuse" was the main hope of the French army. The Austrians, the world then said, had fallen before Prussia, not by reason of Von Moltke's tactics, but simply through the power of the Needle gun. In like manner, continued the critics who in common with the majority of European public opinion still believed in the military prestige of France, the Prussians must, in case of war, fall before the French, by reason of the superior power of the "Mitrailleuse." The star of the "Man of Destiny" had once more appeared in the form of the first machine gun. Nevertheless, Bismarck, Von Moltke and their stout old king took the first opportunity of asserting themselves and testing the "Mitrailleuse." The consequences were very different to the popular prediction. The Prussian army was not annihilated, the French Empire was not consolidated with the addition of the coveted Rhenish provinces and the Luxembourg Duchy. On the contrary, things of very different character happened. Of these the only one we intend to notice on the present occasion is the failure of the "Mitrailleuse." The machine undoubtedly, on some favourable occasions, killed a good many men; but it proved too slow, too unreliable, and too cumbersome for use in the battle field. It had thirty barrels, which were loaded by the motion of a disc carrying thirty cartridges. It worked only by volleys, and between the volleys the loading was a slow process, apt to be much hindered by the excitement of war. There was no getting the machine about quickly in the field, and no working it expeditiously when stationary. Soldiers, however, did not discard the idea of machine guns, which have been defined in the "Encyclopædia Britannica" as "weapons made to fire a rapid succession of bullets from a stand or carriage, so that while requiring but two or three men to work them, they may throw in a fire equal to that of a detachment of infantry." That being an object good enough to keep always before the mind's eye, the "Mitrailleuse" proved only the first of a series of

inventions which form the newest, one of the most interesting, and perhaps the most important chapter in the history of gunnery. Of these the best known in these islands are the Gatling, the Gardner, and the Nordenfeldt, examples of which have been seen on board the ships of Her Majesty's Navy in our waters, and mention of which is frequent in accounts of naval manœuvres and Soudan campaigns. The best known of the rest are the Lowell gun, and the Pratt and Whitney, American inventions. All these are distinguished for rapidity of fire, accuracy up to a certain point, and excellence of finish and workmanship; and all are operated by lever or crank action moved by hand-power. After them has come the Maxim gun, with what looks very like a claim to supersede them all for superiority in every respect, in which one weapon can exceed another. At any rate, the last of the series is an enormous contrast to the first. Instead of the slowly repeated volleys of the clumsy thirty-barrelled cannon, we have a rapid-firing single barrel, protected from overheating by a water jacket, utilising its recoil for all the complicated operations of loading and unloading, and of great accuracy at all ranges.

The great difference between the Maxim and the other guns in use is that it is automatic. Instead of a lever or crank worked by an attendant soldier, it does everything for itself by the force of its recoil. The advantages of the automatic principle are obvious. The former types require to fasten their piece to a solid base, so as to resist the deflecting action of a lever or a crank; and this necessitates screws and gearing for training. The automatic action not causing any disturbance there is no fixture, no gearing or screws; but the piece is aimed and turned, depressed or elevated with the same ease as a hydrant of water; much weight is dispensed with and the mobility consequently greatly increased. But the main advantage is very much more considerable. Cartridges on service being liable to damp, some of them are apt to hang fire; for a fraction of time, it is true, but appreciably. A crank or lever action depending on manual power loading and unloading cartridges rapidly, is sure when a cartridge hangs fire to withdraw it too soon; in the act of exploding, that is to say. The result is "jamming" and the utter paralysis of your weapon. At Abuklea the excitement of the gunner it is said made him drive the crank of his Gardner at a pace too rapid for the first faulty cartridge, the cartridge jammed and the Arabs got into the square. A similar reason is given for the extermination of the Italian column during the Abyssinian war. Now, with the automatic action, jamming from this cause is impossible. The unloading machinery waits for every cartridge to explode and give it the recoil force, without which it cannot be moved. Thus, while the Maxim can be safely worked up to its maximum of 600 rounds per minute, no other known system can depend upon safety at a rate anything above half that speed. Sustained accuracy is as great a desideratum as speed. The Maxim attains that by means of the water jacket. After 600 rounds at top speed, the water boils, and if the same rate of fire is kept up the whole of the water in the jacket is vaporised in three minutes. It is easy to add water, so that the heat never rises over 212 deg. F., the excess being carried off in steam. The other guns not being provided with this appliance, are not protected by any limit of heating; after one thousand rounds of anything like speed they become very erratic, and if persevered with reach a point at which they must cease firing altogether.

Practical trials of the most exhaustive character have proved that all the above theoretical advantages are real. The Maxim, therefore, stands at the head of all the pieces of the machine tribe. It may be said to embody the perfection of the machine idea which practical soldiers have, for twenty years, invited and encouraged mechanical inventors to pursue. With its mechanical perfection, its accuracy, range and rapidity of fire, its lightness, portability and handiness, the Maxim automatic gun announces by its presence a revolution in the practice of war. Field artillery having been driven out of short range by the development of the rifle, this piece comes as a powerful aid to the strength of infantry battalions. To a people small in numbers, but resolute in quality, it offers the means of engaging superior force in combat on equal terms. For giving tenacity reconnoitring cavalry and outlying pickets, the arm is invaluable, as it is for resisting landings from the sea, or assaults on fortified positions. To cavalry and cyclists corps it presents a new strength, and artillery it must enable to dispense in important degree with escorts. Such is the weapon whose performances are to be exhibited to-day at Lyttelton—a place where its assistance to the defences would be invaluable, and where assistance of some kind is certainly necessary. If we must spend money on the premium of insurance against war risks, good economy and prudence require us to spend it on the best weapons of the modern workshop.

The preparatory works for the construction of a canal through the Isthmus of Perekop, in the Crimea, have been completed, and the excavations are to begin shortly. The canal will be spanned by two huge iron bridges.