

rifle, and 80,000 having been manufactured, were issued to the troops. The calibre is 0.433 in., and the magazine holds one packet of five cartridges. The magazine is a fixture under the rifle just in front of the trigger-guard. The worst of this system is that all five cartridges must be inserted in the magazine at once, and they must all be fired before another cartridge can be inserted. Count Sparre has, however, devised an invention by which he claims to be able to place either five cartridges at a time or a single cartridge on the breech, as may be wished. It is believed that the manufacture of the large-bore rifle has been stopped, and that a new rifle on the same principle, but with a bore of 0.315 in., has been adopted, and is about to be issued.

In Belgium, as a result of experiments tried in 1885-86, it was resolved in 1887 to issue to the infantry a 0.315 in. magazine rifle, with a detachable magazine. This rifle has three grooves, with a twist of one turn in 11.417 in. The charge is 57 grains of loose Rottweil powder, and the bullet, having a thin coating of steel, weighs 240 grains. It is stated that a 3½ in. deal board has been penetrated at 2,300 yards.

In Denmark trials have been taking place since 1883, and it is believed that the American Lee rifle, with a calibre of 0.315 in., will be adopted.

The French till lately possessed two descriptions of magazine rifle—the Kropatschek and the Gras. These being found unsatisfactory, the Gras-Label has been adopted, and 350,000 have been issued. Great efforts have been made—as might have been expected, without success—to keep everything connected with both rifle and ammunition a secret. How jealous the French government is on the subject is proved by a telegram from Nice published in the *Times* the other day, announcing that a retired German officer had been arrested as he was on the point of posting a package containing a Label cartridge. Concerning the arm and its ammunition, it would appear that the secret has been kept as regards the explosive, of which it is only known in general terms that it is a slow burning, smokeless powder, a product of collodion and gun cotton. As to other particulars, it is known that the bullet is of hardened lead coated with nickel, that the calibre of the rifle is 0.314 in. that the magazine holds nine cartridges in a tube under the barrel, and that the rifle weighs 8 lb. 10 oz. It is said that the trajectory is very low, and that the muzzle velocity is 2,200 ft.

Germany for some years past has devoted great attention to magazine rifles, and has issued a large number of converted Mausers which have eight cartridges in a tube under the barrel. The converted Mauser not having proved successful, it was decided to adopt a small-bore rifle. The precise pattern has not yet been finally decided on, but it is believed that the rifle of the future will be one with a magazine holding six or seven cartridges under the action just in front of the trigger-guard, on the American Lee system. The magazine can be filled when attached, or detached and a spare one ready filled substituted. The charge is 40 grains of Duttonhofer semi-smokeless chemical powder, giving a muzzle velocity of from 1,900 ft. to 2,000 ft. The calibre of this rifle is 0.295 in.

The Italians have lately substituted for the Vetterli rifle, with a magazine holding ten cartridges, the Vitali, weighing 8 lbs. 8 oz., having above the action a magazine which holds four cartridges, and a calibre of 0.408 in. This system does not find favour, and it is believed that before long a small-bore rifle on some other system will be adopted.

In Norway and Sweden no definite decision has yet been arrived at, though experiments have been going on for some years. The Portuguese first decided on adopting the Guedes 0.315 in. repeater, but becoming dissatisfied with it, they have cancelled a contract for 40,000 of these weapons, and it is believed that they have now adopted a small-bore Kropatschek magazine rifle with a calibre of 0.315 in., a charge of loose Rottweil powder, and a bullet of hardened lead with copper covering and weighing 246 grains.

The Spaniards are still only in the experimental committee stage. Russia has not yet definitely adopted a magazine rifle, and at present there is a disinclination to reduce the calibre. Switzerland is the only country whose army is entirely armed with repeating rifles, and has for many years used the Vetterli 0.409 in. rifle, with a magazine holding ten cartridges in a tube under the barrel. Since 1879 experiments as regards the bore have been going on, and there is a strong disposition to reduce the calibre to 0.315 in. The ammunition question, however, presents difficulties, and the Swiss are determined to go further into the matter before committing themselves to an extensive manufacture of small-bore rifles. In the earlier part of last year the Turks contracted for the purchase of 300,000 converted Mauser rifles.

We now come to our own country, where the question has been, according to public opinion, lagging in an indefensible manner. It may, however, be said in defence of our war office that we have profited by the experiments and failures of foreign nations, and that it is doubtful whether any of them have yet provided themselves with a thoroughly satisfactory arm. The question of the advisability of adopting a maga-

zine rifle for the British army has been under consideration since 1877, but it did not provoke much interest either in official circles or among the public. Then came the decision that the calibre of the rifle should be reduced, and it was resolved that a calibre of 0.402 in. should be substituted for the Martini-Henry calibre of 0.450 in. The decision was arrived at in 1885. In August of that year the small arms committee reported strongly in favour of a magazine rifle as the service arm. A large number of rifles of various systems had been submitted to the committee, but all but three had broken down under the tests applied. The three magazine rifles which had stood the tests were the Owerl Jones, the American Lee, and the improved Lee. It was sought to utilize the large existing stock of Martini-Henrys with their falling block action, but the latter seemed at first an insuperable difficulty. This difficulty, however, we are told in the report before us, "appears to have been got over by Capt. G. Harston, an officer of the Canadian army, who has succeeded in fitting a magazine on the left side of the action which feeds the cartridges into the chamber in a most satisfactory manner; and so far as can be judged, the invention promises to be one of much value, as, if it ultimately turns out to be thoroughly sound and practical, the whole stock of existing Martini-Henrys could be converted into magazine arms at a trifling cost."

(To be continued.)

Regimental News.

St. John, N.B.

The ball given on Friday evening last, by the officers of the New Brunswick Brigade Garrison Artillery, was a most delightful event. About two hundred and fifty ladies and gentlemen were present. All branches of the service were represented in uniform: the Staff by Col. Maunsell; the Cavalry of Kings County by Col. Domville and some of his officers; the Infantry by Col. Blaine and several of his; the Rifles by Capt. Hartt with others of his corps; and of course the Artillery were in force, with a large number of gentlemen who could set up no claim to don a distinctive uniform. And, of the gentler sex, no fairer display could anywhere be made. The decorations of the room were a fine achievement. The prevailing colours were those of the artillery—blue and red—with here and there a judicious intermingling of white, or a pleasing introduction of evergreen, while from some points on the walls gleamed stars of polished steel made up of infantry bayonets. A "break" in the room over the stairway was effectively concealed by a section of a fort, through the embrasures of which the "frowning cannon" disclosed itself. National flags and ensigns were carried along the upper wall, or hung out from it; the regimental colours of corps that now only live in the memory of old militiamen, as well as the colours of existing corps, adorned other parts of the room, and the national emblem was a conspicuous object. The windows were covered with half blinds, on which were representations in red of mounted guns. Set in the mosses, ferns or other decorations of the window sills were fairy lights in many colours. The stage had been converted, by a tasteful arrangement of rich drapery, handsome furniture and articles of *vertu*, into a pretty drawing room, so that it was both useful and beautiful, while the decorations of flags, plants, evergreens, which took the place of the footlights, might be conceived to be a masked battery, in which a keen spy could discover the deadly gun. Rifles with fixed bayonets made a *chevaux de frise* in front of the band gallery. The electric lights and the gas lamps, prettily shaded in primary colours, threw softened gleams over the rooms, and upon the many coloured dresses and uniforms that were in constant motion. In a word the decorations, both in general design and in detail, could not but satisfy the most exacting taste.

The guests were received by Col. J. R. Armstrong and Mrs. Armstrong, and by Captain and Paymaster George F. Smith and Mrs. Smith, who, with the officers of the Brigade, were courteous and attentive hosts. A programme of twenty dances, under an efficient floor committee, of which Surgeon Daniel was the chief, was disposed of with promptness, but not with undue celerity, to some very good music furnished by the Brigade band.—*St. John Globe*.

The 66th Fusiliers at Inspection.

The 66th Battalion Princess Louise Fusiliers under command of Lieut.-Col. Macdonald, paraded on Thursday last, 27th ult., for inspection by the deputy adjutant general. There appeared a total of 293 all ranks, being the largest number the battalion ever had at an inspection. The men were in full marching order with great coats rolled crossing the left shoulder. Every man present was clean and tidy. At three o'clock the deputy adjutant general came on the ground and was received with a general salute, the battalion in line at open order. The D. A. G. rode down the ranks and inspected them, after which they broke into column