

"In our opinion the Mauser system comprises the two systems, Chassepot and Borden No. 2. The time actually required for loading is nearly the same as that for the needle-gun, an advantage to which the Prussians attach great importance, because it will consequently be unnecessary to teach the men a new loading drill. Moreover, the whole of the mechanism in the Mauser system can be taken to pieces without any tools being required; a great advantage, and one which until now has alone been peculiar to the Prussian needle-gun. We have not seen the new cartridge; but, as far as we can judge from what has been told us, it is very similar to our Borden cartridge; but it has been really said that it is the Bavarian Werder cartridge which has been adopted.

"Nowadays, when those persons who are interested in the weapons with which troops are armed, meet together they are pretty sure to ask, 'Which do you consider to be the best rifle?'

"It appears to me that all discussions on this subject are now evident proof that no determination has as yet been arrived at as to which is the best pattern. How is it there is no longer a question as to whether a large or small bore is preferable for a weapon which fires rapidly, apparently because this question has been argued out to such an extent that no doubt can any longer be entertained with regard to it.

"In the same way the problem which consisted in deciding whether the barrels should be of steel or of iron has been solved; ten years ago it was a point which gave rise to much controversy.

"As for us, after numbers of experiments carried with arms made on different patterns, firing, metal cartridges adopted by the various powers are equally good, *if the cartridges are good*, and equally bad *when the cartridges are bad*.

"This conclusion might appear strange to many people, and yet there is nothing in it which is not perfectly natural. In fact, every one ought to know that where the rifle is of that pattern with which metal cartridges are to be used, paper cartridges cannot possibly be fired from it. We may ask why? Because this pattern is not constructed in such a manner as to hermetically close the breech by means of the mechanism, the paper cartridge likewise cannot be expected to do it, from whence it results that if the cartridges split, that is to say when they are bad, we may say that none of the patterns which have been adopted would stand continuous firing.

"According to our views, there is no reason to go into the question as to this or that part of the breech apparatus getting out of order, in order to determine upon the value of such and such a pattern. We are perfectly convinced that it is possible by splitting the cartridge up and inserting it in a particular manner to make everyone of the different patterns adopted in the service unserviceable. We have not the slightest doubt in this respect. We believe that to obviate this inconvenience attention must be paid more to the manufacture of the cartridge than to the construction of the rifle.

"This was the answer which I always made when the question as to the best pattern of rifle was mooted, and the majority were of my opinion. In a certain small-arm manufactory, however, I encountered a strong opposition; I was told that the pattern shown to me was one which it would be impossible to injure or render unserviceable,

and I was pressed to put it to the test. To decline this invitation would have been to acknowledge that my allegations had no foundation, consequently it was necessary to put them to proof.

"I was asked to explain the detail of my method of proceeding. I requested that a cut should be made in the edge of one cartridge, and one along the socket of a second one. I inserted the first one and fired, then the second one; no particular result ensued.

"It would have been most mortifying to have succumbed. I said to myself, 'Are my assertions to be looked upon as nonsense? in which case these strangers will have good cause for laughing at me.' It would not do to hesitate, so I took a file, made an incision in a cartridge, and fired. A slight flash escaped from the breech. The inventor who was present during this experiment, on observing this explosion (the others not having observed it), convinced that everything was right, suggested that I should open the breech mechanism. I tried to do so, but it would not open; in my turn, I begged the assistants to try to open it; they succeeded, but only by the united strength of two persons. The interior was covered with a thick bed of scales. I was told that the difficulty which had been experienced in opening the breech block was due to this fouling, and not to any injury sustained by the breech mechanism. To settle this question, I requested that the mechanism might be cleaned. On taking it out, it was evident that the difficulty above mentioned was not due to the fouling, but to the fact that the pivot on which the breech-closing apparatus turns was greatly bent; most probably the mechanism would have been blown out had a second shot been fired. With regard to that, I was told that the injury to the pivot was of no consequence, and that the rifle could be fired without it. To prove this, two shots were fired by hand; but each time when I asked the man who fired if he would be willing to fire again, but with a notched cartridge, he distinctly declined.

"Thus you see," I said to those present, "when the cartridge is not split (in other words, when you are perfectly certain that the cartridge is good) you can fire with a weapon from which one of its most essential points are missing, whereas with a split cartridge—i. e., a bad cartridge—it is dangerous to fire, even with a rifle the pattern of which apparently presents every guarantee of solidity. The persons present agreed with me, and begged me to show them how the cartridge ought to be cut and placed in the barrel in order to injure the mechanism; which I did."

"This experiment extemporised, so to say, and which had such a complete success, has confirmed me more than ever in this idea viz., that it is quite useless to endeavour to obtain a method of closing the breech which cannot be rendered unserviceable with cartridges which are liable to split, that for the moment attention should be exclusively directed to the soundness of the cartridge, that this problem once solved, the best breech-closing system will be the one that is cheapest, and can be easiest taken to pieces and put together again. To worry oneself with the view to obtain a system which permits one shot more or less to be fired a minute, is simply to pursue an object of quite secondary importance."

* It is a pity the author did not consider it advisable to give his readers full explanation of this infallible plan.

The above contains such important facts, and such good and practical advice, that but little needs to be added. We are, fortunately, able to make metal cartridges which will compare favourably with those of any other nation in Europe. We may, however, deduce the following facts:—That one of the first essentials for an effective rifle is a cartridge, the case of which is guaranteed to be perfectly gastight, as without that every nature of barrel, system of rifling, or plan for closing the breech will alike fail, the moment the ammunition is faulty. It is very evident that in the event of such a case, the blame must be laid upon the maker of the cartridges, and not upon the inventor, or the gunsmith. On the other hand supposing the cartridge to be perfect, we cannot give the first place to that rifle—never mind what the mechanism may be—from the breech and barrel of which excellent results are obtained with this cartridge, looking at them solely from a firing point of view, such as accuracy and range. It is necessary to be certain the extractor throws out the old cartridge without any hitch, that the striker does not remain imbedded in the base of the cartridge, that the cartridge is not too heavy, when we come to consider the total weight of ammunition which the man must carry. Also whether the weapon can be easily taken to pieces and put together again, whether rust, dust, rain, &c., may not prevent the mechanism from working with rapidity.

With regard to the Mauser rifle itself, the Swiss military journal has lately given an account, accompanied by explanatory drawings, without the aid of which it would be difficult to explain the technical details of this weapon. Three movements alone are required to load the rifle. In the first, the movable breech-block is worked from right to left, and pushed back into the breech aperture, so as to throw out the old cartridge and at the same time to cock the striker; in the second, a cartridge is put into the chamber; in the third motion, the moveable breech-block is advanced, so as to close the rear chamber of the breech, whilst shoving the cartridge into its place, the lever of the breech-block is then pushed back into its socket. The cartridge used with it is a metal central-fire one. Owing to the large number of Chassepot rifles which the Prussians have in their possession, they are anxious that the Mauser bullet should fit the Chassepot.

A few days since, says the *Victoria War-der*, a large buck which had been chased by a hound, ran into the farm of Mr. John Atwill, 6th concessionary Emily. His wife, who happened to be engaged outside, struck the animal on the head with a club, when the deer made a rush at her, tearing her dress, and evidently would have severely injured her but for the timely assistance of two dogs which held the animal down while Mrs. Atwill tied his legs with her apron, and with the assistance of her son succeeded in despatching it.

Pigeon River is the boundary between Ontario and Minnesota. A road is nearly completed, thirty feet wide from Pigeon River to Fort William. The snow is two feet deep, but with a mild winter so far. The mail goes on snow shoes from Pigeon River to Fort William and Silver Islet. The mail from Duluth to Pigeon River and thence to Isle Royale, is carried in a row boat. Lake Superior is clear of ice, but the bay and rivers are frozen over.