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### THE PLACE OF THE MITRAILLEUR IN WAR.

[From the Saturday Review.]

What is the place of the mitrailleur in war? Is it destined to have any place at all? A month ago there were those who would have assured us that the instrument would exercise an influence on future battles not inferior to that of the breech-loading rifle. One enthusiast, indeed, has gone so far as to affirm that there have been three great revolutions or epochs in the art of war, of which the first was the introduction of gunpowder; the second, the introduction of breech-loaders; the third, the introduction of his own mitrailleur. Whether, in the face of the experience of the past few weeks, any one would now be found to claim for the mitrailleur this high position, we do not know. It is certain that, if such persons are to be found, we need not seek for them in the ranks of the French or German armies. The deluded French soldier has ere this found out that the engine of warfare is not all that he had been taught to believe. The mitrailleur had, by diligent Imperial puffing, become established as an article of the French soldier's military faith. It was to do for him what the *Zundnadelgöcher* had done for the Prussians in 1866. It was to destroy his enemies wholesale; it was to win his battles; he had only to turn the handle rapidly enough and the thing was done. This fictitious reputation of an untried weapon was diligently fostered and kept up, not merely until the opening of the campaign, but in some sort after the campaign had actually commenced. The Emperor of the French, in his anxiety to maintain the confidence of his soldiers in the "mitrailleuse," had recourse to the remarkable statement that the Prussians at Worth made use of these weapons, "which did us much harm." It was more than hinted that the French defeat was due in no slight degree to the unexpected employment by their enemy of a weapon of which the French claimed a monopoly. As a matter of fact the Prussians have not a single mitrailleur, and early last year a special Prussian Committee carried out a long series of comparative experiments, and finally reported against the introduction of these weapons for field use. Here, then, we have the ex-

trêmes of laudation and depreciation. Is there no mean between the two? Briefly, what is the place and value of the mitrailleur in war?

It is in order to supply an answer to this question that experiments with some specimens of this class of arm are now being carried on at Shoeburyness. The mitrailleur is no new weapon, though the name is new. From time to time men's minds have been delighted to exercise themselves in producing revolving or many-barrelled cannon, multiple guns, and rifle batteries of endless variety. With patient ingenuity they have designed one "infernal machine" after another, to discharge with more or less of rapidity and effect showers of missile matter. The records of the Ordnance Committees overflow with such propositions. To these weapons certain objections of a general character have always presented themselves, and successively determined the rejection for field use of the Palmer, the Nugent, the Lilley, the Requa, the Manceaux, the Claxton, and other descriptions of multiple cannon. Nevertheless, the Gatling battery was forced upon the attention of the Government in such a way that a trial at Shoeburyness was accorded to it in March, 1867. It is unnecessary to detail the results of that trial, because the Gatling gun has since been greatly improved, and no real opinion as to the value of the weapon could be formed from the results obtained with an inferior specimen. But those results were not considered sufficiently encouraging to recommend a continuation of the experiment, and the subject languished until the confident but rather vague statements of the French Government as to the importance of the "mitrailleuse" of Meudon, and the fact that other nations were trying weapons of this class, again directed attention to it. The mystery with which the French "mitrailleuse" was cunningly surrounded heightened curiosity, while it served the purpose of encouraging the French soldier. *Omne ignotum pro magifico*. At last it was thought desirable that an experienced English officer should endeavor to find out by diligent inquiry on the Continent, what the various mitrailleurs were really worth. This duty was entrusted to Major Fosbery, V.C., of the Bengal Staff Corps, an officer who is well known in connexion with firearms of various sorts, and as an advocate of explosive bullets. Major Fosbery examined several specimens of mitrailleurs, and witnessed several trials at Liège and Brasschaet. The result was a report very favorable to a mitrailleure invented by Messrs. Montigny and Christophe, of Brussels, to which Major Fosbery, in conjunction with Mr. Metford, applied

some important improvement. One of these weapons was ordered, and two Gatling batteries were purchased about the same time. From one cause or another, the experiments with these arms have been delayed; and they only commenced in earnest about three weeks ago.

The Montigny mitrailleur is in general appearance not unlike a small field-piece. It is mounted on a carriage which closely resembles an ordinary gun carriage, and which might be much improved. The weapon consists of 37 steel barrels of .534 inch calibre, soldered together, inside one larger iron barrel, and capable of throwing 500 grain bullets with 115 grains of powder. The loading is effected by slipping a steel plate containing 37 cartridges into a vacant space behind the barrels, and then by means of a lever pressing the plate forward, and securing it in its position, the whole 37 barrels being thus loaded simultaneously. To fire the piece it is only necessary to raise a lever handle. If the handle be raised rapidly the discharge is instantaneous, the whole 37 cartridges being fired in less than a second. Or the fire can be made as deliberate as may be desired, each cartridge being exploded singly. A traversing or moving movement is attached to the instrument, and adds greatly to its efficiency. It is said to be effective up to 1,200 yards, which, with a charge of 115 grains of powder, is probably correct; this point has not, however, yet been tried at Shoeburyness; and the performance of the weapon in respect of rapidity of fire, accuracy and general effect, have thus far fallen so far below what we had been led to expect that we must decline to take anything that has been said of the weapon on trust. As an example of this we may mention that it is claimed for the machine that 10 plates of 37 cartridges each (= 370 rounds) can be fired from it in a minute. The highest rate yet attained at Shoeburyness, even when as many as five men were employed to serve the piece, is, we believe, 11 plates (= 407 rounds) in two minutes, or about 200 rounds a minute. This difference is perhaps due in some degree to the inferiority of the present ammunition, which by occasionally separating in extraction, or becoming bent or otherwise injured, seriously interferes with rapidity of fire. But even when all deductions are made on this score—though why M. Montigny should supply for an official trial ammunition inferior to what he has himself used we are at loss to understand—there will still remain a large unexplained difference between the promised and the actual performance of the gun.

The Gatling battery differs from the Mon-