

manding officers to bring up every man that can carry a gun, when small detachments are called in from distances of 40 miles in order to swell the total, then, at all events, the number present may be taken as approximately representing the full regimental strength. All this occurred on the 13th of June at Lonchamp, when the army of Paris Versailles was reviewed by Maréchal McMahon; and no one will pretend that, on that occasion, when every available man was called into requisition in order to improve the show, the companies exceeded 60 men. Allowing for the sick, the absent, and the guards left at barracks, this would represent a maximum total of about 75 men per company, and at that rate the 18 companies of each regiment would make up not 1,800 men, but 1,350. If this be the situation of the regiments in and around Paris, which every body knows are kept up to a higher strength than any others, it may fairly be presumed that the general average of the whole army does not exceed 1,200 men per regiment of infantry, and that the same proportion is applicable to other arms. Of course this calculation does not pretend to be critically correct; but information collected with much care from many channels confirms it generally, and justifies the opinion which results from it, that this summer the total number of soldiers round the colors has been one third less than the figure indicated in the budget, and that it has not, consequently, exceeded 285,000 men, altogether. Of these at least one eight, or 35,000 men, are *non valeurs*—that is to say, employed in non combatant services, or sick. The number of fighting men in France and Algeria is thus reduced to 250,000. At this particular moment it is cut down still more, in consequence of the departure of the class of 1870, which formed one fifth of the entire army.

The fact that the men who are paid for in the budget are not all present round the colors is of course illegal; but it is a fact, and it is explained, as has been mentioned in a previous article, by the conflicting necessities of showing nominally a strong effective and of simultaneously providing large unvoted sums of money for pressing needs. To mention one single case—it is a matter of public notoriety, first, that the wooden huts put up three years ago to camp the troops round Paris cost more than double the amount which was voted for them in the budget; and, secondly, that no supplementary credit has ever been taken for them. How then was the surplus paid? The answer is very simple: a certain number of thousand men were sent home *en congé*, and the money saved on their pay and rations was appropriated to settle the account. The same process has been applied to other items, on the largest scale; and, irregular as that process is, from the point of view of strict parliamentary control and exact audit, there is no doubt at all that, as the Government dares not tell the plain truth to France and let it know that the same money cannot pay for two things at once, it is practical and wise to pay privately for the more urgent of the two. It would, however, be honest to leave off pretending that the Republic is more virtuous than the Empire, for we see here that on this point there is not much to choose between them.

THE NEW ARTILLERY.

Matériel constitutes the third element of the subject, and it follows naturally on the heels of *virements*; for it is precisely to pay for the *matériel* that the *virements* have been

effected. *Matériel* includes, however, so many things that no attempt can be made here to give a list of them; we limit ourselves, therefore, to the most important of them—cannon, rifles, horses, and fortifications. The late war had scarcely commenced before it was recognized that the French artillery could not hold its own against the Prussian fire; the fact became quite evident in the very first engagement which occurred. Directly peace was made, three Commissions were appointed in order to study the question; experiments on new types of guns were undertaken at Calais, Tarbes, and Bourges; and the breech loading 14-pounder proposed by Colonel de Remy was adopted. (It should be mentioned that neither this indication, nor any of the other similar indications which follow in lbs. are absolutely exact; the French kilogrammes are taken here for facility of description, as representing 2lb. English, whereas, in fact, they represent 2½lb. each. The real weights of the projectiles are consequently one tenth greater in each case.) To that date the French field guns had been either 8 or 24 pounders. The Remy gun had been manufactured and employed in Paris during the siege; certain defects had been found in it; but as 1,800 guns of that pattern had been already produced, it was considered, after all, that it was more practical to make some alterations in them in order to cure their more serious faults, and to adopt them, for the moment, as the regulation model, in order not to throw away the money which had been spent upon them. The temporary character of this decision was distinctly indicated in the official report which was then made by the commission: it is said,—“The 14lb. cannon is, in reality, only a first step towards breechloading; but it exists, and that reason obliges us to adopt it—with the distinct reservation, however, that it is only to be considered as provisional arm.” Soon after this decision was arrived at it was recognized that the 14 pounder was too heavy for ordinary field service; it was lighter, of course, than old 24 pounder, but it did not replace the suppressed 8 pounder. Thereupon Major Pothier, who had been working with Colonel de Remy, proposed an 8-pounder of his invention which had been used on the Plateau d'Avron during the siege of Paris. This gun was tried at Trouville, before M. Thiers, who was then President and an historian, was particularly desirous to be regarded as a scientific artilleryist as well. It was adopted, as a second step towards breech loading; but the Committee of Artillery was not content, and insisted that it should be converted into a 10-pounder. Major Pothier objected strongly to this change, urging that a shell of 10lb. was not appreciably more effective than one of 8lb.—that six horses would be needed if the gun were enlarged, while four would suffice for it as it was, and that less ammunition could be carried in the caissons if the larger size were adopted. But the committee were quite decided; the construction of the Pothier 10 pounder was begun at Tarbes, and was carried on simultaneously with that of the Remy 14 pounder. And then experiments went on again, though, this time, they were kept quite secret. It oozed out, however, that steel guns were at last beginning to be tested (the Remy and Pothier cannon are in bronze); and the truth of this report was proved at the review of the 13th June, for a few steel guns appeared then in the batteries for the first time. It is said, indeed, that a steel gun is now definitely adopted instead of the two other models; that it will be given out, as made, to the ac-

tive army; and that the bronze pieces will be handed over to the territorial army, the same projectiles being employed by both. It may be added that the reorganisation of the artillery is advancing very slowly. By the “loi des cadres” there are to be 35 regiments of gunners, composed of 13 batteries each; but, thus far, there are only 6 or 7 batteries in each regiment. The whole of this story of artillery is not edifying; it shows want of unity of purpose, of decision, of steadiness of action, which does not promise much for future progress.

The new rifle adopted for the French army (the fusil Gras) is almost exactly similar to the Mauser; it is considered, in France, to be as good as the latter, but to be somewhat inferior to the Martini Henry. The manufacture of it began last year, and is progressing at a rate of about 2,500 a day; so that to supply the whole 3,200,000 muskets which according to the report presented to the Chamber by M. Riant, are considered necessary, about four years (in all) will be required. Thus far, the cadets of St Cyr and the 30th battalion of Chasseurs are the only troops which are provided with the new weapon.

Of horses there is a grievous dearth; and as it is taken for granted that they could not be obtained, by ordinary means, in sufficient numbers for a war, the government, two years ago, got the chamber to vote a “conscription des chevaux,” by which all the horses in France are required to be registered, and are rendered liable for military service, in the event of the mobilization of the army. If taken, they are to be paid for at prices fixed beforehand for each category of animal.

THE QUESTION OF FORTIFICATIONS.

The question of fortifications is perhaps the most generally interesting of all the branches of *matériel*, and in this case it has the special merit of offering scarcely any grounds for criticism, for competent and independent judges, of many nationalities, unite in saying that it has been intelligently and most practically resolved. Until the last war, French military engineers persisted in maintaining the theories of Vauban, and the scheme of intrenched camps; advocated by Montalembert, was somewhat contemptuously thrust aside. But the Germans took French fortresses so easily, that a violent reaction of opinion arose, and it seems now to be decided that, henceforth, only two types of fortified defences shall be created—intrenched camps, and what are called “forts d'arrêt,” placed according to the lie of the country at strategic points, and at intersections of roads and railways. At first it was intended to submit the new projects of fortification for the approval of the Chamber, and, as regards Paris, a complete plan was brought in by the Minister of War. But, after this plan had been partially discussed, it was suddenly remembered that it would be particularly foolish to tell the whole world, officially, what was going to be done; so the debate was stopped, and the works have been carried on in silence since. This is contrary to the law which prescribes that the sovereign power alone can modify, suppress, or create fortifications in France; but the prudence, and indeed the necessity, of not discussing schemes of such a nature before all Europe, fully justifies the illegality which is being committed. As everybody recognises that fact, not one word has been said about it. There can, however, be no objection to our sketching a rudimentary outline of the general system of defensive works which is now being carried into execution, for, as has been already said, Prussia