

fourth battalions of Infantry. These are all old provisional battalions which, under the recent general order, become full five company battalions with the commanding major promoted to a Lieutenant colonelcy. The 92nd is the old Dorchester provisional battalion; the 93rd the Cumberland battalion, and the 94th the Argyle Highlanders of Victoria County, N.S. What about the 91st and 92nd of Winnipeg now? One of them must drop out, though the leaving of the 91st number blank would appear to indicate that it was proposed to continue one of them permanently.

In No. 8 we spoke of the defects in the present system of instructing the militia force in musketry, but we may take a little comfort to ourselves when we find that in England things are no whit better; in fact, the similarity in the systems adopted is ludicrous. It should be sufficient to simply mention these glaring defects to have a decisive remedy applied. This is what the *Volunteer Record* says:—"We need hardly say that the shooting of our auxiliary forces, taken as a whole, is painfully deficient. But, even with all the so-called improvements in arms, how can it be otherwise? What attention is paid or time given to tutoring young shots? Absolutely none. Men are sent to fire their class with a weapon about which they really know nothing, and the instruction they receive at the firing point almost equals that imparted to them in the drill room. It is not an uncommon thing to witness a sergeant-instructor at the ranges complacently smoking his pipe, while the men to whom he should impart instruction are blazing away at the target—trying to hit it, without success—and not receiving one word of advice. And yet under this extremely foolish and dangerous system men are expected to shoot well. It must be borne in mind that shooting, as connected with a volunteer's life is a thing distinctly apart, requiring to be acquired, and not his second nature. The main evil in our shooting system is in our musketry instruction, and until this defect is remedied no recognisable improvement can be effected in the shooting competitions of our citizen army."

We regret that pressure on our columns compels us to omit from this issue the continuation of Col. Kemmis's essay on "Field Artillery." It is of great practical use, but must give way to topics of more immediate interest.

#### IN THE HOUSE.

The length to which the session has been prolonged has had the effect of preventing discussion on all topics during these closing days, and the House has pretty much confined itself strictly to business. The event of the week, from our point of view, was the vote of thanks to the field force, passed on Friday and embodied in these resolutions:—

(1) That the thanks of this House be given to Major-General Frederick D. Middleton, C.B., for the distinguished skill and ability with which he conducted the military operations in the North-west Territory which resulted in the suppression of the rebellion against the authority of Her Majesty.

(2) That this House doth acknowledge and highly approve of the gallantry, discipline and good conduct displayed by the officers, non-commissioned officers and men of the militia force of Canada and of the North-west Mounted Police in the suppression of the rebellion.

(3) That this House doth acknowledge with admiration the distinguished valor and conduct of those who perished during the operations in the North-west in the service of their country, and desires to express its deep sympathy with their relations and friends.

(4) That the Speaker do communicate said resolutions to Major-General Middleton, and that he be requested by the Speaker to signify the same to the several officers and men surviving.

Mr. Caron, who moved them, in the absence of the Premier, sketched the progress of the campaign, and showed how General Middleton's promptness and energy had so speedily brought the troubles to an end. He praised the Canadian Pacific Company, the Hudson's Bay Company and the Transportation Company, for assistance in transport; deplored the loss of the heroes who fell to save their country, and paid a high tribute to Dr. Bergin for his services in

arranging the ambulance corps, etc., quoting Dr. Boyd's expression that he "found a field hospital that would do credit to any nation as a model." He also praised Col. Powell, Lt.-Col. Panet, Lt.-Col. Macpherson, Hon. Dr. Sullivan, Purveyor-General, and his secretaries, Messrs. Benoit and Aldrich, for their zeal; and he thanked the ladies, headed by the Princess Louise, who sent supplies, as well as those who went to the field as nurses.

Sir Richard Cartwright, who seconded the resolutions in Mr. Blake's absence through illness, spoke in terms quite as warm as Mr. Caron of the achievements and endurance of the force, and thought their actions gave good ground for hoping that the national spirit had already obtained a greater growth than might have been anticipated. He agreed with Mr. Caron that the position of Canada had been raised in the eyes of the world by the conduct of our gallant friends, as well as in her own eyes. The absence of such tortures and outrages as had marked Indian outbreaks in other countries showed that the policy of patience and justice in dealing with our Indians had not been thrown away; and the loss which we had sustained in blood and money would be in some ways compensated in the gain in national spirit, and in the patriotism engendered by sacrifice, and although it may be that we can do but little to compensate those who have lost husband, or son, or father, we may well remember that

"Their country weeps the slain,  
But the burthen of our pain  
Is as nothing to the blaze of their renown."

Mr. Tassé, Mr. Alonzo Wright, Mr. Woodworth and Mr. McMillan also spoke in favor of the resolutions, the first named alluding to the labors of the missionaries in the cause of civilization in the North-west, and bespeaking for the vanquished who were descended, some of them, from the first families of England and France, clemency and generosity; and Mr. Wright eulogizing the late Col. Williams.

The resolutions were moved in the Senate by Sir Alexander Campbell, seconded by Hon. P. W. Scott, and spoken to by Messrs. Allan and Trudel.

On a special message from His Excellency a vote of \$20,000 was made in recognition of the services of Major-General Middleton.

On the suggestion of Sir John Macdonald it was arranged that the Speaker should send a floral wreath to be laid on the coffin of the late Col. Williams.

At the prorogation yesterday the militia were referred to in His Excellency's speech in the following terms:—

"The insurrection has been encountered by the military force of the Dominion under Major General Middleton in a manner deserving of the highest commendation.

The courage which our citizen soldiery have shown in the face of a formidable and determined enemy, their cheerful endurance of privation and fatigue, and the readiness with which they have submitted to sacrifices, inevitable whenever a force composed of citizens of all classes is called upon to relinquish the employments of civil life, reflects the highest credit upon them.

I am gratified to find that both Houses of Parliament have considered the conduct of Major General Middleton and the officers and men under his command deserving of their formal thanks. It has been my agreeable duty to bring under the notice of Her Majesty's government the value of the services which have been thus rendered to the Empire.

I cannot leave this subject without expressing my sorrow that the success of our arms should have been purchased at the cost of many lives which Canada could ill afford to spare. The memory of those who have fallen either on the field or from sickness contracted during their service will be gratefully cherished throughout the Dominion.

It affords me great pleasure to acknowledge the prompt action of the government of the United States in taking the precautions necessary in order to prevent any co-operation with the insurgents from the frontiers.

#### RIFLES AND RIFLE SHOOTING.—X.

BY CAPTAIN HENRY F. PERLEY, HEADQUARTERS STAFF.

The ignition of gunpowder must be distinguished from its combustion. Powder is ignited when a portion of it begins to develop light and heat, and this in granulated powder communicates from grain to grain with the utmost rapidity, but still by successive ignition. Combustion means the final and total decomposition of each grain separately, and the complete liberation of its component gases. In gunpowder these phenomena follow each other so rapidly that, unless the mass is spread over a considerable space, they appear to be simultaneous, but they exist nevertheless. The heat evolved by each grain during its combustion suffices to ignite all other grains within a space of six times its own diameter. The granulation of gunpowder has a great influence on the rapidity of its ignition; the larger the grain the more rapid the ignition but the slower the combustion, whilst on the other hand small grain powder ignites more slowly, but burns with greater speed. The necessity is thus seen of using a coarse grained powder in rifles, where it is