

worthy of careful consideration, and we will be pleased to have the views of other surgeons of our militia force on the points suggested by our correspondent. The indications are that we are on the eve of times of peace, and this will have to be borne in mind in treating of a subject which really acquires its special prominence owing to the element of disturbance.

Attending the church parade in Ottawa on the Queen's birthday were two military bands, those of the Guards and the 43rd Rifles, which of course played alternately, and the difference in the length and speed of pace, as given by the two, were very noticeable. Now the Field Exercises lay down very definitely that the quick march shall consist of 116 paces of thirty inches each every minute, and it is quite evident that one band, if not both, was disregarding these facts. We know that the same state of things exists in other places, and remember vividly the effectual manner in which the marching past of several battalions at a review in Montreal some years ago was spoiled by the erratic time of one of the bands. The remedy for this state of things is simple, and lies in the hands of the bandmasters and commanding officers of corps. Drum, plummet and pace-stick shall be used, say the Field Exercises, in teaching men to march, and so say we.

Another point brought out by the same parade was the unsuitability of the present regulation headdresses for the variations of our Canadian climate. The brass helmets of the Dragoon Guards, the bearskins of the Foot Guards and the fur-bushies of the Rifles are alike unsuitable for the cold of our winters and the heat of our summers. Sunday was a bright day with the thermometer up in the nineties, and the discomfort of all the corps under their top-heavy loads was pitiable. It is easier to find fault with existing arrangements than to propose a remedy. If martial appearance could be left out of account the problem of providing head-gear for Canadian troops would be simple enough; a tuque would fulfil all necessary conditions for winter or night work, and a soft felt hat to protect the head, and particularly the eyes, from the summer sun, would meet the case perfectly, but unhappily neither of these is particularly trim looking. Perhaps some of our readers may have something practical to suggest.

THE WEEK'S DOINGS OF CORPS IN THE NORTH-WEST.

During the week ending on Monday morning there have been considerable changes in the disposition of the forces; the easternmost column, under General Middleton, having effectually completed its work, has virtually been absorbed into the Battleford force, the Winnipeg Field Battery alone remaining to garrison Prince Albert. General Middleton reached Battleford by boat on the 23rd with parts of the 90th and Midland Battalions, the 10th Grenadiers had set out to march to Battleford, and the remainder of the troops were going through by boat. Riel has been handed over to the civil authorities at Regina. The Simcoe Battalion and G. G. Body Guard are yet at Humboldt, and the 7th Fusiliers at Clark's Crossing. Col. Scott's Battalion has been ordered to Prince Albert, which will probably be garrisoned by its right wing; the left wing going on to garrison Battleford.

Poundmaker followed up his offer of submission by surrendering unconditionally on Monday, the General arriving at Battleford just in time to receive him. 210 stand of arms were given up, and after the chiefs and the murderers of two settlers had been secured, the remainder of the band were released on parole. The large size of his band, numbering about 2,000 souls, and the difficulty of supplying them, were probably important factors in bringing about this gratifying result.

General Strange's command has safely reached Fort Pitt and re-garrisoned that important point, and a report has just been received

that he met Big Bear's band, said to include 800 armed men twelve miles north east of Pitt on the north side of the river, where he had two days' skirmishing with them on the 28th and 29th, losing one man killed and two wounded. This, however, lacks confirmation. He left garrisons at Edmonton, the Peace Hills, Battle River, Fort Sackatchewan, St. Albert and Victoria, as he advanced.

General Middleton is said to have left Battleford by the river to reinforce General Strange with a field gun, a Gatling gun and detachments of "B" Battery, Mounted Police, the Queen's Own and the Midlanders. Thus the three columns have practically been merged into one, and the only active work yet remaining to be done is the dispersal of Big Bear's hostiles.

RIFLES AND RIFLE SHOOTING.—III.

BY CAPTAIN HENRY F. PERLEY, HEADQUARTERS STAFF.

During the feudal times the *arbalist* was much used, and it was recognized as a military weapon about the time of Richard I. Its equivalent in these days is the cross-bow gun of our school boys, which throws an arrow or a pea. In the smaller kind of *arbalist* the bow was bent by hand, but as it was found that wooden bows did not possess sufficient power to propel arrows to the distances required, steel was used, and an instrument called a *moulinet* was employed to bend them. The missiles discharged were sometimes ordinary arrows, but generally a short, stout kind having a four-sided pyramidal head, called *quarrels*, were used; and occasionally stones and leaden balls were discharged from the larger kind of arm. This weapon continued to be a favorite in England up to the 14th century, when it gave place to the *long bow*, which was found to be more convenient in battle, for by it twelve arrows could be discharged for one by the *arbalist*, and, being held in a vertical position the soldiers, or bowmen, were enabled to stand in closer array, while by reason of the lightness of the bow they were able to take a larger supply of arrows into the field. The first mention of the bow is found in the passage of Genesis (1760 B.C.), where Isaac told Esau to take "thy quiver and thy bow," and to go and fetch some venison. Next earliest, or contemporaneous with the historical books of Holy Writ, are the marvellously preserved testimonials borne to their truth by the sculptures of Nineveh, in which the bow is represented as the favorite weapon of the king and his chief warriors, whether for war or for the chase. In these sculptures it is shown as a long and powerful instrument, drawn to the ear of the shooter, and carrying an arrow apparently not inferior in size to the cloth-yard shaft of the English archers of the olden time.

Soldiers armed with the bow and arrow were called archers. Among the ancients specially eminent in the use of the bow were the Thracians, the Cretans, Parthians, and Numidians; among the moderns, the Arabians, the Germans, English and Saracens. In 1327 the Emperor Frederick II. employed Saracenic archers, and those who were attached to the light troops opened the battle. In England the archers wore light armour and a short sword, and carried a quiver containing 20 arrows. At first archers fought in small groups, later on in large masses; and the battles of Crecy and Poitiers (1356), Agincourt (1415), Crevant (1423), Verneuil (1424), and Roderway (1429), were decided by them alone. At the battle of Crecy a large body of Genoese archers assisted the French, and previous to the commencement of the engagement a shower of rain came on which wetted the strings of their cross-bows, causing them to stretch, and thus rendered them to a great degree inefficient and useless. The English had covers of canvas, or other material, for their bows, which protected them from the weather, and they were thus enabled to come into the field with their weapons in good and serviceable condition. In the records of the Exchequer of England in the years 1344-1347 there are to be found items of payment "for leathern cases for bows and arrows" supplied to Edward III. Among the Asiatic tribes, the Turks, Persians and other nations of the East, the bow and arrows are used as weapons of offence and defence; and it is only within the present century that the Indian tribes of this continent have abandoned their use for the gun and rifle.

The cross-bow was the chief arm of many of the foreign powers, but the English adopted the long-bow for use in the field, and used the cross-bow in defending castles and fortified places. The invention of the cross-bow is attributed to the Normans. It was used in the first crusade and came into general use on the Continent soon afterwards, remaining in favour for some years; but during the reign of Francis I it disappeared from the armies of France. It was deemed to be a most cruel and bar-