

Russian war cloud was lowering, that some twelve 40-pounder Armstrongs and six 9-pounder field pieces were going to be sent out at once. At least four of these 40-pounder rifled guns on travelling siege carriages would be most useful as a means of preventing an enemy landing at many places around Victoria which the guns at present mounted could not reach.

When the present fortifications are put in serviceable condition, when "C" Battery and school of gunnery are in practical, instead of theoretical existence, when the garrison artillery and rifles are kept to their authorized strength at all three ports, the siege guns and field pieces on the spot ready for use, a corps of mounted home guards equipped, a small torpedo corps established, and the presence of at least two of H. M. ships in the straits made continuous, then, and then only, will the Pacific interests be safely guarded.

### CORRESPONDENCE.

A FURTHER LETTER FROM THE MIDLAND BATTALION.

MAPLE CREEK, 2nd May.

On receipt of orders last night at ten to move west, we struck tents at five this morning and left per C.P.R., reaching this place at noon. The cause of our sudden removal was that Capt. McIlree, of the Mounted Police, came in to report that having only 25 men at his disposal at Maple Creek, they were liable to be raided and looted by Indians and half-breeds at any moment, and that they must have assistance. As a consequence Col. Deacon was ordered, with companies "G" and "H," to move to this point at once. We were not sorry to leave, though we should have preferred to go north, but that was simply impossible. As I write our battalion is still separated, companies "A" "B" "C" and "D" being at Clark's Crossing, or rather, on their way there, having been stuck in the mud on the *Northcote* for the last six days. "E" and "F" are at the Saskatchewan Ferry, 32 miles north of Swift Current. In the meantime a train of timber and carpenters reached Swift Current this morning, and the building of barges to aid in the transport service will be commenced at once. I expect it will be another week or ten days before we move towards the Saskatchewan, unless we are sent across country from this point, which is a shorter route. Should we go northwards from here we will be tolerably certain to fall in with the enemy; it is also believed that if they retreat they will make for this point to augment their supplies. We are under canvas about two miles south of Maple Creek, a village containing about twenty houses and stores, and having the police barracks (25 men), about 500 yards distant on our right. We left the Halifax battalion and the 7th Fusiliers behind us at Swift Current, the 9th having been sent to Calgary. It is almost startling to think what the cost of this campaign will be to the country, it must be enormous, our company's pay sheet alone amounts to over \$1,000 for the month. We are all in the best of health and spirits and getting fat on North-west air and rations. I send you some more flowers which we have been having since the 15th April. Weather waru as in June.

### NOTES FROM QUEBEC.

The first installation of the Edison electric light in Quebec city is now in practical operation at the cartridge factory in the old artillery barracks, near St. John's gate, where a plant of seventy-five incandescent lamps supplies light for the whole factory. The lamps used are of 16-candle power each; and the current is generated by a dynamo machine, driven by the engine which supplies power to the other machinery. Over the lamps are placed nicked shades which reflect the light downwards upon the work exactly where required, and switches are provided in each room to throw on or off the lights therein, whilst on the sockets of such lamps as are not always required to be alight keys are provided to turn them on or off independently of the others. Safely cut-outs are placed at the junction of branch wires with the mains. These consist of attachments to the wire, into which are screwed plugs consisting of short lengths of fusible wire which melts in case of the accidental crossing of the wires and so prevents any danger of fire arising. At the Laboratory on the Cove Fields a plant of 26 lights is also installed, and here special precautions had to be taken to avoid danger from fire on account of the quantity of gunpowder used and stored there. Each lamp, therefore, is provided with an outer glass covering and the cut-outs are protected by wooden boxes. The lamps, sockets and machinery are manufactured wholly in Canada by the Edison Electric Light Company, whose headquarters are at Hamilton, Ont., and the installations were made under the supervision of Mr. Lawson, the manager of the company's Canadian business. Since the factory has been thus lighted, it has run night and day, turning out daily 25,000 rounds snider ammunition, which is packed in small handy boxes of 250 rounds each.

A large quantity of Martini-Henry ammunition, and also twelve M.L.R. 9-pr. field guns, with wagons complete, have arrived in Quebec from England during the past week. These guns, &c., brought out in two different steamships, have been taken to the Citadel by the officers, men and horses of the Quebec Field Battery, Major Lindsay in command.

A rocket battery with a good supply of rockets would be an acquisition in the North-west. As there are none in Dominion stores, they ought to be obtained from H. M. Fleet, at Halifax, with a few Jack Tars to operate them as instructors.

The rifle match at Levis on Ascension day was the opening of the 8th Royal Rifles' Association, and not the Stadacona, as stated.

### RIFLES AND RIFLE SHOOTING.—II.

BY CAPTAIN HENRY F. PERLEY, HEADQUARTERS STAFF.

About the year 200 B.C. every Roman between 17 and 47 was held liable to serve as a soldier, but the younger men were preferred, and they had to undergo a severe course of drill and discipline, to fit them for marching, fighting, camping, carrying, working and other active duties. The Roman legion in its day had many excellent qualities, as for instance, great facility of movement, a power of preserving order-of-battle unimpaired, a quick rallying power when forced to give way, a readiness to adapt itself to varying circumstances in the field, formidable impetuosity of attack, and power of fighting on a retreat. The heavy infantry were armed with javelins, heavy darts, pikes and swords; the lighter troops with bows and arrows and light javelins; whilst the defensive armor comprised shields, cuirasses, helmets and greaves.

The downfall of the Roman Empire marked the dividing line between ancient and medieval times in military matters, and from that time until the introduction of gunpowder in the middle ages it may be said that no nation possessed any regular or defined army.

During feudal times kings could not maintain a standing army, because the barons and feudal chieftains were jealous of allowing them too much power. Each baron had a small band composed of his own retainers, or hired men-at-arms, and was always ready for a fight at the shortest notice, either with his king or his neighbor. But these had to give away, and in 1470 Charles VII. of France gradually converted his ill-governed force into a well disciplined army, and since that time each nation has maintained its army and has engaged in bloody and destructive wars.

Before the days of gunpowder the "battering ram" was the instrument used in attacking a walled town or castle for the purpose of effecting a breach through which the besiegers could enter. It consisted of a beam of wood varying from 60 to 120 feet in length, with a heavy mass of bronze or iron resembling the head of a ram on one end. In its simplest form it was borne by soldiers or suspended in a frame. The "ram" sometimes weighed a ton, and when a hundred men or more were employed in putting the weighted beam in motion and concentrating the blows hardly any wall could withstand its effects. In connection with the ram a tower on wheels, called a "beauffroy"—whence we have our word "belfry"—was pressed against the walls of the besieged city or castle, and being several stories or stages in height, the topmost one overlooked the walls, and having a flapped bridge to let down on them a passage for troops was thus afforded. In the lower or ground floor the battering ram was placed and the floors above were filled with troops, principally archers.

The invention of machines for casting stones and heavy missiles is a very early one in the history of the world, for in II Chron. xxvi., 15, we read that Uzziah (1,000 B.C.) "made in Jerusalem engines invented by cunning men, to be on the towers and on the bulwarks, to shoot arrows and great stones withal." The ballista, catapult, scorpion and orager propelled heavy missiles, chiefly through the reaction of a tightly twisted rope of flax, hemp, cat-gut, sinews of animals, or hair, or else by the violent movement of a system of levers. The ballista threw stones; the catapulta heavy darts or arrows, and it took two men to manage each. The makers of these machines were very particular in the choice of the hair of a woman, the sinews from the neck of a bull and the tendons of a deer, out of which to fashion their cords. Early chroniclers tell us of catapultas that would throw an arrow half a mile, or hurl it across the Danube; and of a ballista which threw a stone weighing 360 lbs.

Numerous other weapons of an analogous character were known and used in the middle ages, such as the *mangonel*, *trebucket*, and *petray*, which threw large stones; the *triole*, which hurled large quarrels, or square-headed arrows; the *mate-griffon*, a slinging-machine; the *springel*, throwing heavy darts; and the *war-wolf*, another style of stone-propelling machine. These engines were sometimes used to discharge other substances besides stones and darts. At the siege of Jerusalem, A.D. 70, the dead bodies of men and horses were thrown by them into the city, to inspire the inhabitants with terror. When the Duke of Normandy, in 1370, besieged the Castle Thure l'Evêque he discharged the putrid carcasses of horses and other animals over the walls, which greatly distressed the garrison, the more especially as the weather was extremely hot.

(To be continued.)