

couver Island, and the harbour of St. John's, New Brunswick, there are at Quebec, eight 7-inch Armstrong breech-loading rifled guns. They have hitherto been considered very weak guns, but by the use of an improved gas check, and the conversion of the gun into a side breech-loader by turning the trunnions, as has been done lately at Woolwich, the gun may be made to take a large charge of the mild pebble powder, which will increase the power of the gun while it diminishes the initial strain on the breech. There are also two of the same 7-inch B.L.R. at Kingston. It was found that in extreme frost the breech-closing apparatus was difficult to open, but by resorting to a very simple expedient, I have overcome this difficulty, and the guns might be considered fairly efficient, especially from their dominant position at Quebec, where they command the comparatively unarmoured deck of an ironclad, which in approaching end-on, would present a most favourable parallelogram to artillery fire.

In addition to the Armstrong breech-loaders are ten 32-64-pounder Palliser, and two powerful guns presented by Sir William Palliser, an 8-inch and a 7-inch, converted on his own principle. I find from an old newspaper extract, that "these guns cost Sir William 700*l.* sterling. "He had to buy them from Her Majesty's Government, and pay "Sir W. Armstrong for their conversion. The freight came to "60*l.* 10*s.* 6*d.* He has already ordered a third gun, given by the "Dominion Government for conversion at Montreal, for which Sir "William pays the cost, and a fourth 10-inch gun (which will probably cost more than the three others put together) he has ordered "to be made in England, as a gift to the Dominion Government. He "further offers to convert all her old guns without profit, commission, "or royalty, to which he has a legal right by his patent. Why this "liberality? Why this affection for old Quebec? Must we believe "*noblesse oblige*? These are patents of nobility more noble than "inherited titles, but Sir William has a claim to both. . . ." (It was during the period war was imminent with Russia), and the *Quebec Chronicle* goes on to remark. "The gift of Sir William Palliser "is indeed a timely one; unlike anything in this age, it reads like a "bit of old Elizabethan story, when English gentlemen from Devon, "fitted out warships 'at their own charges' to meet the great Spanish "Armada."

My first report after landing in Canada seven years ago, was to recommend the conversion of our useless old smooth-bores into rifled guns, on the Palliser principle, utilizing thereby the old carriages, sidearms, and general stores, and even the projectiles, the calibre remaining the same. Such an armament would be pre-eminently suitable to Canada, the defence of which will mainly depend on Canadian Plevnas. I have therefore continued to reiterate the suggestion in which I have been supported by the Major-General Commanding since his arrival in Canada. In dwelling upon the economy of converting old smooth-bore guns to new rifles, I do not forget the fact that we require a few powerful first-class armour-plate piercing guns at St. John, New Brunswick, Quebec, and Vancouver's Island. Except at Halifax, where there is an Imperial garrison, we have not