Master Gunner Donaldson, who in addition to his duties as Master Gunner and District Clerk, has assisted me in giving instructions to officers and others, in mathematics as applied to gunnery, surveying, &c., is well qualified for his post.

In concluding this report on the Gunnery School, I would beg again to submit for consideration, my proposal in last year's Militia Report, (page 31,) viz: that "The most obviously advantageous method of utilizing scientifically trained officers during peace, is that adopted in the United States, where a large proportion of those educated at West Point are employed on public works."

"The gigantic railroad, canal, and boundary surveys, undertaken by the Canadian Government, give ample scope for the employment, of assistant military surveyors and engineers, who would thus form the nucleus of a particularly scientific staff corps, whose intimate knowledge of the country, and the maps they would construct would be of incalculable value in the event of war, and useful in peace. These services are at present, in some instances, done for us (and I have no doubt with great ability) by foreigners, whose knowledge of our country might not always be to our advantage."

"It would be very desirable that a party from the Gunnery School should be attached as assistants to the Royal Engineers on the boundary survey. When the latter return to England, their Canadian assistants would have acquired sufficient skill to become the nucleus of a Canadian Staff Corps of Engineer Surveyors." To be employed under the Department of Public Works, if required.

I have the honor to be, Sir,
Your most obed't servant,
T. B. STRANGE, Lt.-Col.,
Commandant "B" Battery,
School of Gunnery.

The Acting Adjt. General,
Ottawa.

(To be Continued.)

WILKES' TERMINATION LAND.

LIEUTENANT JOHN HYNES, R N., writing on board H. M. S. *Challenger*, to Dr. Haynes, the Arctic explorer, gives some very interesting information regarding Wilkes' "Termination Land." He says:

You know the purposes of the *Challenger* expedition—deep sea explorations in all parts of the world, and running lines of soundings, which, besides their value in a scientific point of view, will be of great use when laying submarine telegraph cables in future times. We were also directed to examine Kerguelen, or Desolation Islands, as Captain Cook called it, and to select an observatory site for the Transit of Venus Expedition, which is expected to arrive there towards the end of this year. Heard or McDonald Island was also to be explored, and as we had to go so far south Captain Nares determined to go a little further, have a look at the ice and endeavor to settle the doubtful question as to the existence of Wilkes' "Termination Land." But we were in no way prepared to enter pack ice, as the ship was not strengthened for it, and did not carry provisions sufficient to allow any risk of being frozen in. Ice anchors and chisels, a couple of whaleboats, extra stores and some warm clothing, all of which were obtained at the Cape, were the only thing taken outward for our Antarctic cruise. On the 16th of February we bore away along the edge of the pack ice to southwestward, and crossed the Antarctic circle in longitude 78 east. We reached within 1,400 miles of the South Pole and 120 miles to the southward of the position assigned by Captain Wilkes to Termination Land, but four hundred and seventy miles to the westward of it, so we stood to the eastward with the view of seeking for it in that direction. The icebergs which we passed were, I may say, innumerable, as many as eighty-seven being in sight at one time, nearly all flat topped, and evidently set adrift from the great southern ice barrier. The effect of a shot at a large one, over 200 feet high, astonished us all one day by the quantity of ice it brought down from nearly the whole length of the berg. The weather was how fine, tolerably clear, the nights never properly dark, bright flashes of aurora australis and a brilliant red light generally illuminating the western horizon, caused by the reflection of the sun on ice. There were a good deal of snow and sharp frost; the lower temperature was 22 deg. Fahrenheit, and that of the water 27 deg. when running through open "pack." Great numbers of whales were seen all the time we were near the ice. On some afternoons they were blowing around the ship in dozens. Many appeared to be "right whales" and spouted only one jet of water. Shoals of grampuses werere also seen. The *Roman* would soon fill up if she ran down here for a month or two in the season. I had almost forgotten to say that when we gave up the search to the westward, on the 16th February, an open sea, almost free of bergs, was seen to the southwest and nothing to prevent a strengthened ship going on in that direction. On the 22nd of February we reached latitude 64 deg. 15 min. south, longitude 94 deg. 47 min. east, being withtin six miles of the supposed position of Wilkes' Termination Land, when pack ice was seen ahead, extending from west-southwest to south-southeast, and completely stopping us. We were also surrounded with bergs, eighty-eight being in sight. Soundings were obtained in one thousand three hundred fathoms. The sky was remarkably clear at the time, the range of vision being logged at between twenty five and thirty miles, but there was no appearance of land in any direction. The next morning the dredge was put over as close as we could get to the supposed position of the Antarctic Continent, but nothing was brought up which would show any light on the subject. The wind now freshened to a gale, with heavy squalls, snow and thick mists, so that it was scarcely possible to see a ship's length. In trying to make fast to an iceberg, an eddy current set us on to it, and the jibboom, dolphin striker, whisker and all the head gear were carried away. Shortly afterwards we were nearly foul of a large berg before it was seen. It was only the promptitude of the maintopman in letting fall the maintopsail, which was thrown aback, and by going astern full speed with the screw, that we cleared it, and thus probably escaped a rather untimely end to the cruise.

We should like, says the London *Iron*, to see an official, full, true, and particular account of the 15,000,000 of Boxer cartridges rumored to have been recently returned from India to the Arsenal, as having been *destroyed in store by galvanic action, and* the brass foil case eaten away and pitted with holes, as if it had been picked with pin-holes for the purposes of a riddle or sieve—a result which, we presume with the cognisance of the War Office officials, was foretold to the Indian authorities. We wonder whether any modern Asmodeus entertained the Emperor of Russia, on his recent visit to Woolwich, with an instructive record of the Arsenal. An inspection of the cartridge machinery might have been fitly accompanied by an account of the original research by a Special Committee of the War Office, for an improved cartridge; and of the subsequent award of the pre*mium of £400 to Mr. G. H. Daw.* If sympathy for an inventor were to suggest congratulation on such a success, as conducting infallibly to fame and fortune, H.I.M. would learn that these things are managed differently in official England—and especially at Woolwich—and he would be taught to admire the happy thought whereby the inventor was left out in the cold, and the principles of his successful cartridge, and his special machinery for its *manufacture, were adopted for the official* cartridge This not only weighs fourteen per cent. more than the original Daw cartridge, of which it is mere verisimilitude, but in such an ingenious combination of copper, brass, iron and lead, with saltpeter, charcoal, and sulphur in its contents, that its excellent qualifications as a galvanic pile, under the influence of moisture and heat, easily prevailed over the protective powers of the varnish, on which fond reliance was placed—*teste* the *15,000,000* half-cartridges above mentioned. When H.I.M. came to reflect upon the rapid firing of the modern breech-loading rifled small arm, whereby, at ten rounds per minute, ten *minutes' firing, mayhap in* the smoke of battle, would exhaust the 100 rounds which constitute the service supply of ammunition for the infantry soldier: and further upon the importance, in actual service of the question how soldiers may carry an adequate supply of serviceable ammunition, and how best to provide adequate means of transport for the conveyance and supply thereof to the troops; the merits of the system whereby the durability of the cart*ridge is impaired, and its weight and cost* increased by 16½ per cent. or more, would meet with the appreciation and admiration they so well deserve.

REVIEWS.

The reprint of the *Westminster Review* for July has just been issued by the Leonard Scott Publishing Company of New York. *The following are the contents:* I. "*Butler's* Analogy—its Strength and Weakness." II "Emigration." III. "Goethe and Mill—a Contrast." IV. "The Admiralty and the Navy." V "Mr. Lewes and Metaphysics" VI. "The Emancipation of Women." VII. "Lamarck." VIII. "The Nationalization of the Established Church."

News from Sheridan's headquarters indicates the Cheyennes, Keowas and Commanches, *seeing formidable preparations made* to punish them, are asking for peace. Orders, however, have been issued not to let them enter the reservations, but to follow and punish them wherever found.