

At the same time, the Board are of opinion that the consumption of gas as a means of lighting Barracks is not likely to be an economical arrangement, and do not therefore recommend its general adoption.

In view of the increased and increasing price of fuel wood, the Board think that a more economical arrangement for heating the Barrack might be found, in substituting coal for wood as fuel, and self-feeding coal stoves in place of the old pattern wood stoves. Suitable coal stoves can be manufactured at Kingston, and probably at other places in Canada, for about \$22 a stove, and small stoves at less cost.

An apparatus for heating now buildings by steam would perhaps, be a still better arrangement, both as regards economy and comfort; but the old Barracks handed over to the Dominion by the Imperial Government, are not now adapted to this mode of heating, especially the casemated rooms in the Forts, and the expense of building furnaces and introducing pipes would be very great. Whereas, the exchange of coal stoves for wood stoves, as suggested, would merely be the removal of one kind of stove for another, and the old wood stoves might realize a good price if sold to people living in the country, who have always a supply of wood at their doors.

The Board calculate that one ton, or 2,000 lbs. of coal, would be equal to about one cord and three-quarters of wood, or 168 rations. Both coal and wood being of the best quality and hard; and in the event of the coal stoves being adopted, they would recommend an allowance of coal equivalent to the allowance of wood, as already recommended herein, which equivalent, in the opinion of the Board, should not exceed twelve pounds of best hard coal to the single ration, or one incl. running measure, of an English cord of wood.

This description of coal can now be purchased for \$7.50 a ton of 2,000 lbs., while the price of wood varies in the different parts of Canada from \$6 to \$8 a cord, with a probability that these prices will increase. And the Board consider that so large a saving in the purchasing of fuel would be effected in a single year by the substitution of coal for wood as a fuel issue to troops, that the cost of purchasing the coal stoves would be covered, and the Board also think that the buildings would be heated in a more uniform and satisfactory manner, and much labor saved to the men.

The Board are further of opinion that some permanent officer should be charged with the superintendence of the Government issues, whether of food, or equipment, or supplies of any kind, and would suggest that a District Quarter Master be appointed to Kingston and Quebec, the two head quarters of permanent corps. This officer could then act as a supply officer to the troops embodied for service in these garrisons, and be likewise available for the care of District Stores not under the immediate charge of the artillery.

He would also superintend the issue and receipt of camp equipage when required for service.

His salary would amount to a small percentage of the annual expenditure under these heads, and the saving effected, together with the better preservation of the public property, would amount to a large percentage on the losses annually sustained for want of necessary supervision.

S. P. JARVIS, Lt. Col., President.
W. H. JACKSON, Lt. Col. Act.
D. A. G., M. D. No. 4.
JOHN B. TAYLOR, Lt. Col.
D. A. G., M. D. No. 1.

TORONTO.

Nov. 1st. 1873.

The same Board having gone from Kingston to Toronto, assembled at the Militia Brigade Office in Toronto, on the 1st November. 1873.

They found occupied by a small detachment of "A" Battery, from Kingston, the following rooms, viz. :—

- 1 Sergeant's room,
 - 2 Soldiers' barrack rooms,
 - 1 Soldier's kitchen.
- } In the old Fort.
- 2 Carotakers' quarters, in the Stone Barracks.

At this particular time there were a number of recruits with this detachment awaiting orders to proceed to the School of Gunnery at Kingston, and a second barrack room was occupied; but as a rule, one barrack room is sufficient for the detachment, as recommended in the tabular form attached to this Report.

S. P. JARVIS, Lt. Col.
President.
W. H. JACKSON, Lt. Col. Act.
D. A. G., M. D. No. 4.
JOHN B. TAYLOR, Lt. Col.
D. A. G., M. D. No. 4.

Kingston, December 12th, 1873.

REMARKS OF COMMANDANT OF "A" BATTERY ON REPORT OF BOARD.

SCHOOL OF GUNNERY, KINGSTON,
8th January, 1873.

Sir,—With reference to your letter of the 6th ult., relative to enclosed proceedings of a Board of Officers on fuel and light, &c., I have the honour to submit the following remarks on certain points at issue therein.

1. With reference to the opinion of the Board (page 5) relative to the closing of Murnoy and Shoal Towers. I quite agree as to the advisability of closing the latter, as from its position and comparative inaccessibility it can be made secure, and being visited frequently the stores, &c., could be kept in good order. I do not consider that the same remarks hold good with respect to Murney tower, which stands in a comparatively isolated position, and if left untenanted might at any time be entered. It has been always hitherto occupied by one or two married men of "A" battery, who perform their regular duty in barracks without inconvenience, and as I entirely fail to see the force of the argument that a By law of the City Council can in any way affect or influence the arrangements considered necessary to be made for the proper armament of these forts, by the proper authorities, I do not see any necessity for altering the existing arrangements.

2. With regard to the proposed substitution of coal stoves for the present box wood stoves, I would venture to suggest that before deciding permanently on the exact equivalent of rations, the experiment be made with the proposed stove—say in the officers' mess,

3. With regard to the scale of rations as shown in the tabulated form annexed to the report, I remark :

(1) No stoves appear for either the commandant's or officers' quarters, or for the sergeants' mess.

(2) Cells—Allowances recommended would not be sufficient with the present apparatus, which is arranged to warm the entire building.

(3.) An allowance of light would be required for the men's reading room in summer, say half ration each lamp.

(4.) No allowance appears to have been recommended for prisoners' rooms, (look up), for which a stove is required, and has been always.

(5) An allowance of light is required for use of the stable picquet lantern in summer, in case of accidents, &c.,—say quarter ration each lantern.

With the above exceptions, I concur with the opinions of the Board, but wish to remark that the "caretakers" mentioned in their proceedings and *bona-fide* members of "A" Battery and shewn on its effective strength, whilst in the case of those living in the hospital, on Cedar Island, and Fort Henry, they are unable to attend drill and receive instruction. I would therefore strongly recommend the advisability of placing careful, steady married pensioners in these positions, and in excess of the present establishment,

I have the honor to be, Sir,
Your obedient servant.
D. T. IRWIN, Major,
Commandant S. G.
(To be Continued.)

THE NEW 80 TON GUN.—This monster piece of ordnance will, when finished, be greater than twice the size of the largest gun in existence, and its destructive powers at fighting range equally proportionate. With a 16 inch projectile, weighing 1,650 lbs., and a maximum charge of 300 lbs. of powder, it will pierce the best iron plates 20 in. thick at 500 yards, 16 in. plates at 5,300 yards, and will pitch a 16 in. shell into a ship or fortress at a distance of 10,300 yards. The steel block forming the inner tube was the largest ever cast, weighing over twelve tons; was the largest forging ever produced at the Arsenal. The actual cost of this fearful engine of war will not fall far short of £8,500.

TURKISH ORDER FOR KRUPP CANNONS.—By command of the Sultan, the *Levant Times* says the Grand Vizier has signed a contract with the local representatives of the Krupp foundry at Essen, ordering 200 field pieces for the Turkish army, with the corresponding gun carriages and other appurtenance complete. His Majesty will defray the cost of this order out of his private purse. The Grand Vizier has also signed a similar order for thirty of these field pieces, at the request of the Valide Sultana, the Sulaan's mother, who will herself defray the cost of this second order, her Highness having previously paid for twenty other pieces of Krupp artillery for the troops. The Valide Sultana makes it a condition that the thirty cannons she now orders shall be delivered within four months.

Alsace is this autumn to become the scene of grand field manoeuvres, in which the corps of an unusually large cavalry force is to form a prominent feature. The sham battle-field selected is the plain about Brumat. Germans in Alsace flatter themselves that the Emperor William will attend the manoeuvres in person, and the repairs of the prefecture in Strasburg, which is to serve as a temporary residence for the Imperial guest, are being hurried on on purpose. It appears, however, far from settled if the Emperor will really attend.

An ex-lieutenant of the Italian Army, discharged for marrying without permission of the War Minister, and reduced to the utmost poverty in consequence, has, says the *Gazette del Popolo*, murdered his wife and three children, after giving them a copiosific. As he was about to be arrested he cut his own throat.