

## Militia and Defence.

It has been found necessary to dispense with the services of the foreman of the cartridge factory and to obtain a competent man to replace him from the Royal Arsenal, Woolwich.

### SHELL FACTORY.

The "personnel" of this factory has been increased and the foundry enlarged; the output will accordingly be much greater. The manufacture of 9 Pr. R.M.L. common and shrapnel shells has been carried out during the year, as well as that of tin cups for R.B.L. guns. The amount of work turned out has been amply sufficient to replace current expenditure. The following new machinery has been purchased from Messrs. J. Bertram & Sons:—

2 16 inch engine lathes,  
2 brass finishers' lathes,  
1 drill press,  
1 emery grinder.

The brass furnace has been enlarged and re-built and a new core drier erected. The firing test of artillery projectiles was carried out at the Island of Orleans during the summer. An order was received some time ago to discontinue this test, but it does not seem advisable to go on manufacturing indefinitely without testing a small proportion of shells in this manner.

In consequence of the introduction of breech-loading guns for the field artillery, it would seem advisable to consider the manufacturing of projectiles for these arms. All the interior parts of these shells such as bushes, diaphragms, tin cups, &c., can be turned out with the machinery we are now using for R.M.L. projectiles. The only additional expense would be the purchase of a small plant for the production of steel of which the bodies of these shells are made.

---

Some additional chemical apparatus is required and would be of great benefit; it is therefore recommended that the small amount required for this purpose be included in next year's estimates.

The appropriation voted by Parliament for this establishment is insufficient to enable us to produce the same quantity of "303" ammunition as has been manufactured in the past for the Snider and Martini-Henry rifles.

The cost of the new cartridge in England is about 50 per cent greater than that of the Martini-Henry rolled case, but this was not taken into account in preparing the last estimates. Our working hours have at the same time been reduced from 10 to 8 per day, entailing a loss of one-fifth of the time we formerly had at our disposal. It cannot therefore be expected that we shall be able to meet the demand for ammunition under present conditions, and it is strongly recommended that this important question should receive earnest consideration.

I have to record my appreciation of the faithful services rendered by the staff and employees during the past year.

I have the honour to be, sir,  
Your obedient servant.

F. M. GAUDET, Capt. R.C.A.,  
Superintendent.

To the Deputy of  
The Honourable the Minister of Militia and Defence,  
Ottawa, Ont.