

occasion in half the time it now takes them but the horses will do much more work, while at the same time they will be less fatigued in dowing it.

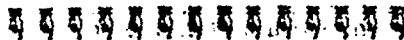
In making these remarks, we are guided by the knowledge of the fact that "The speed of cavalry must be esteemed its first and most useful property" all other things are secondary to this, and to attain it in perfection we must reduce the riding weight of our Dragoons by stones and not by pounds; hence the necessity of the alterations we have advised, alterations, be it remembered, that in no single particular detract from the rider's efficiency, but, on the contrary, add to it.

The first movement for the establishment of the Newport Torpedo station was made in September, 1869, when Commander E. O. Matthews—then attached to the Bureau of Ordnance in Washington—was selected for the work on account of his special qualifications and adaptability for prosecuting successfully a series of experiments, which, in governmental interest, were to be of the most thorough description. By February, 1870, operations commenced in earnest for the manufacture of the torpedoes and instructing officers in their use. A new machine shop is now building, which is of brick, two stories in height, and will, when completed, be a model of its kind. West of the machine shop is a brick building, used for storage on the first floor of all extra finished parts of machinery, apparatus for experiment, etc., while in the loft is the telegraphic machine under the hands of students who are qualifying themselves for operatives. Within Fort Wolcott is a laboratory where the materials for igniting and exploding the torpedoes are prepared. Out of the fort, on the west shore of the island, are two small buildings especially devoted to the manufacture of the terrible explosive tri-nitro-glycerine and dustin, and north of them is a still for the manufacture of chemicals. Chemistry and electricity play most important parts in torpedo manufacture, and the student is obliged to throw off all horror of disagreeable work, don the proper clothing and add by practice to what he had previously acquired theoretically. From the first day to the last of the student's stay, it is constant work with head and hands, and if he does not prove an efficient officer, it surely will not be the fault of the Government. In the building known as the head quarters, are small laboratories, lecture and study room; all conveniently connecting with the office of the commander in the centre. In the latter room is kept a complete record of everything; work performed, business records and results of all experiments, many of which are of the utmost importance to the War Department. The torpedo varies in size from a capacity of from fifty to five hundred pounds of explosive material and is classed according to use. Before receiving the explosive, the test is made by an air-pump to satisfy as to tightness. For harbor defence the torpedo is copper-covered, as that material is slow of corrosion, while for spars and immediate miscellaneous uses the cheaper cast iron alone answers. The variations of style and manner of use are secret. Connected with the post are three steam launches, which are fully provided with ingenious devices for exploding the torpedo from the broadside and under water.—U. S. Army and Navy Journal 21 Dec. 1872.

Complaints are being made in France about the unsatisfactory manner in which the soldier performs his toilette, especially in camp. There is a rule that a jar of water shall stand in each room or hut; but this water is intended only for two purposes—to quench thirst and lay the dust on the floor. There are orders that this water shall not be used for washing; but in cold and wet weather the soldier prefers pouring some of it into his hands, and thus washing his face, to going out into the open air; his hands serve him for a basin, and his sheet for a towel. Now, the *Bulletin de la Reunion des Officiers* considers all this insanubrious and unclean, and recommends the erection of a covered washing place, with conveniences for daily ablution, and a thorough scrubbing under the eyes of officers once a-week.

During the last twelve months the number of deserters from the English Army has been so unusually large as to excite public attention and the newspapers are engaged in discussing means of putting a stop to the illegal exodus. Last year 8,360 names of deserters were published, and desertion is still going on at the rate of 700 or 800 a month.

BREAKFAST.—EPPS'S COCOA.—GRATEFUL AND COMFORTING.—The very agreeable character of this preparation has rendered it a general favorite. The *Civil Service Gazette* remarks:—"The singular success which Mr Epps attained by his homoeopathic preparation of cocoa has never been surpassed by any experimentalist. By a thorough knowledge of the natural laws which govern the operations of digestion and nutrition and by a careful application of the fine properties of well-selected cocoa, Mr. Epps has provided our breakfast tables with a delicately flavoured beverage which may save us many heavy doctors' bills." Made simply with boiling water or milk. Sold by the Trade only in 1lb., 1/2lb., and 1/4lb tin-lined packets, labelled—JAMES EPPS & Co., Homoeopathic Chemists, London, England



TO THE WORKING CLASS.—We are now prepared to furnish all classes with constant employment at home, the whole of the time or for the spare moments. Business new, light and profitable. Persons of either sex easily earn from 25c. to \$2 per evening, and a proportional sum by devoting their whole time to the business. Boys and girls earn nearly as much as men. That all who see this notice may send their address, and test the business, we make this unprecedented offer: To such as are not well-satisfied, we will send \$1.00 by the trouble of writing. Full particulars, a valuable sample which will do to commence work on, and a copy of *The People's Literary Companion*—one of the largest and best family newspapers published—all sent free by mail. Reader, if you want permanent profitable work, address **J. C. ALLEN & CO., 27 N. 3rd St., Phila., Pa.**



NOTICE TO CONTRACTORS.

SEALED TENDERS, addressed to the undersigned, and endorsed "Tender for Petawawa Works," will be received until Thursday, the 16th instant, at noon for the performance of certain repairs of Sills, Dams, &c., from the First Cnuite to Thompson's Rapids, on the Petawawa River.

Specifications can be seen at the office of the Superintendent of the Ottawa River Works on and after Friday, the 10th instant, where printed forms of Tender and other information can be obtained.

The Department will not be bound to accept the lowest or any Tender.

By Order,
F. BRAUN,
Secretary.

Department of Public Works,
Ottawa, 6th January, 1873.

NOTICE TO CONTRACTORS.

SEALED TENDERS addressed to the undersigned, and endorsed "Tender for Caillon Canal, Dam and Slide," will be received at this office until noon of Monday, the 27th day of January next (1873), for the construction of a Dam, Timber Slide, and Canal with two Locks, in the Caillon Rapids.

Plans and Specification of the works can be seen at this office, and at the Lachine Canal Office, Montreal, on and after Wednesday, the 15th day of January next, when printed forms of Tender will be furnished.

All Tenders must be made on the printed forms, and to each must be attached the actual signatures of two responsible and solvent persons, residents of the Dominion, willing to become sureties for due due fulfillment of the contract.

This Department does not, however, bind itself to accept the lowest or any Tender.

By Order,
F. BRAUN,
Secretary.

Department of Public Works,
Ottawa, 25th Dec., 1872.

ORDNANCE LANDS.

PUBLIC NOTICE is hereby given that on **SATURDAY** the 1st day of February next at the Salesroom of J. Birmingham, Ottawa, and at the hour of noon will be offered for sale, the following Lots of Ordnance Land, to wit:

1st. The lease for twenty-one years from day of sale of two several wharf Lots, lying on the west side of the Rideau Canal to the south of the Sappers Bridge, Ottawa, between the said Sappers Bridge and the stores of the Messrs. Bates, each Lot having a frontage of 83 feet, by a depth of 100 feet more or less, as shown on plan. Buildings to be erected thereon within two years in accordance with plans to be submitted to and approved by this Department.

2nd. A piece of Ordnance Land known as broken lot No. 11, Con. 5, South Crosby, County of Leeds, Ontario, contents being 35 acres, 3 rods and 24 square rods, more or less, together with a smaller piece of land contiguous to above, containing 1 rood and 28 square rods of land, more or less, with mines and minerals thereon being specially any mine of Phosphate of Lime, which may be, or may be found thereon. Terms Cash. Plans to be seen at the place of sale.

By Order,
E. PARENT,
Under Secretary of State.

W. H. COFFIN,
Ord. Lands Agent.
Ottawa, 27th Dec. 1872.

READ THIS! All persons having leisure and wishing to increase their income, please send address prepaid to undersigned Occupation easy and honorable, suited to all, especially **TOLADIES**, \$2 to day without risk or expense.
C. L. ROSSE, Montreal.

Wanted,

A BAND-MASTER for the P. W. B. Band. For particulars as to salary, etc, apply to **RICHARD W. BARROW,** Captain, President Band Committee Kings, Ont., July 19th, 1872.