

Tracing works from plans.

As much work as possible will be executed full size, the remainder will be done model size. All will be dealt with in lectures.

The carrying out of the full course will necessarily be dependent on the strength of the class and on the weather. The practical portion of the work will be done equally by officers, N.C.O. and men.

The officers will receive theoretical instruction of a more advanced nature and will be required to work out simple projects.

LONG COURSE—OFFICERS.

This course must be taken during the period assigned for instruction, in Military Engineering at Royal Military College, i.e.: between 1st February and 10th June.

The qualification necessary prior to commencing Long Course is the possession of a Short Course Engineer Certificate Grade A.

The qualification to entitle to a Long Course Engineer certificate is, to qualify in the manner and subjects specified as necessary for Long Course Certificate for all arms, with the exception that the course of *Military Engineering* will be special, viz.: that herein defined in Syllabus for Long Course Officers of Engineers.

The percentage of marks necessary for qualification will be the same as specified for R.M.C. Long Course for all branches of service.

LONG COURSE—N. C. OFFICERS AND MEN.

This course must be taken between 1st February and 30th April.

The qualification necessary prior to commencing a Long Course, is the possession of a Short Course Engineer Certificate Grade B.

The qualification to entitle to a Long Course Engineer Certificate is, to qualify in the course specified in the Syllabus of Instruction.

The percentage of marks necessary for qualification will be the same as for Short Course.

SYLLABUS FOR LONG COURSE IN MILITARY ENGINEERING.

(45 days of 6 hours each.)

Those undergoing a Long Course will, as far as is practicable, be afforded an opportunity of renewing their knowledge of the "Short Course" work, and will be afforded all available opportunities of supervising and laying out work. Portions of the "Short Course" work will be done again in greater detail, and also, in addition the following sections:

Section 1.—Drawing.

Scales; drawing plans; plotting; calculating parapets; conventional signs; reading maps.

Section 2.—Entrenching.

Field works with special regard to details.

Defence of posts and positions.

Use of Fortification by attack, clearing the way, removing and surmounting obstacles, crossing ditches, occupying captured works, entrenching when attack is checked, &c.

Section 3.—Communication and Camping.

Examining and reporting on roads, railway, etc. Use of Norton's tube well.

Section 4.—Bridging.

Improvised bridges; sling bridges; suspension bridges; railway bridges; strength of materials.

Section 5.—Explosives.

Making joints in wires and cables; use of the service. Frictional Electric Machines for firing charges (Tension and Quantity Dynamos); simple testing; connecting up charges; service electrical fuzes and detonators; deliberate demolitions.

Section 6.—Siege Works.

"Short Course" work in greater detail, with special reference to the rules for design, excavating, tracing, &c., &c.

Mining with "cases," and "frames" and "sheeting"; loaning and tamping mines; ventilation and lighting of mines; charges of mines.

The Close Attack—The Engineer Park.

Section 7.—Miscellaneous.

Boning and levelling; taking sections; setting out slopes—in greater detail.

Supervision of labour; charge of stores; estimating and drawing tools and materials.

Tracing by night.

Section 8.—Special.

The rudiments of Permanent Fortification.

Officers will receive more advanced "theoretical" instruction than the N.C. officers and men.

(To be Continued.)

THE EXAMPLE OF OUR MILITARY COLLEGE.

The recent success in the British army of graduates of the Royal Military College, Kingston, has prompted the Agent-General of Victoria to send a report upon the college to his Government, with suggestions for the establishment of a similar institution in Australia. We learn from *India and the Colonies* that:—"One of the recommendations of the Defence Commission, which sat at Sydney about four years ago, was that a federal military school should be established upon the same lines as the Canadian institution, in some central position, but, so far, most of the Australian colonies have taken steps in the direction of establishing smaller separate colleges. Now, however, that the Australasian Federal Council is about to meet, the subject ought to be dealt with in a comprehensive manner. The opportunity of doing so is all the greater, seeing that Colonel Hewitt, who organized and conducted the Canadian Institution, is at the present time seeking some military appointment in the Australian Colonies."—*Montreal Gazette*.

Sir Andrew Clarke, of the British War Office, writing to the Minister of Defence, Victoria, urging the establishment of a Military College for the Colony, refers in the highest terms to the character of the training given at the Royal Military College, Kingston, and concludes as follows:—"I regard the Canadian Military College as one of the best of its class in the world. The training and results are in every way of a high order, and the Americans themselves, I understand, say better than at West Point. There is no reason why Australia should not have a Military College equally good. It only requires to be started, and now seems as favourable an opportunity as is likely to occur."—*Ottawa Citizen*.

FORMATION FOR ATTACK.

(PROPOSED BY CAPT. FRID. LYDON, R.S.)

On the command "FORM FOR ATTACK," Company Commanders will give the word "Fours Deep."

On the command "EXTEND FOR ATTACK," Company Commanders will give the word to their front ranks (on two front ranks of fours), "Advance," and when clear, "Four paces from Right, Centre or Left, extend," and continue to advance till halted by the Commander.

The Captain and Left Guide will move with the fighting line. The Right or Senior Guide will command the rear rank (or two rear ranks of fours), which will act as support to their front rank, covering the centre of their fighting line at about 150 yards. The Commander of Supports to be in front. The Supports to move only on the word of their Commanders.

On the command "COMMENCE FIRING," the rear rank men of the fighting line will move up on the left of their front (or proper right file), and divide the distance. Firing to be under the control of Section Commanders.

When advancing firing, the Fighting Line will advance in a general line by short rushes, firing by alternate files, unless otherwise ordered by Section Commanders. When retiring and firing, the men will retire by alternate files, the advanced rank holding their ground till the retiring rank halts and is ready to cover their retreat. When they will fire, turn to the right-about, and move in double time straight to the rear, taking up the quick time as they pass through the second rank.

On the command "REINFORCE," the Supports will get the word "Advance, Four paces from the Centre, Extend," the whole breaking into double time till they reach the fighting line, each man placing himself on the left of his own front rank man, and taking up the fire.

If this movement is correctly done, the line will stand rank entire, front and rear rank man alternately.

If the intention is to seize a position, the command will be "LINE WILL ADVANCE—QUICK MARCH." The line will step off, the front rank men only stepping a full pace, the rear rank men stepping short paces, and the whole line closing on the centre, shouldering arms as they step off. The Guides and Markers taking their places in line.

This will bring the battalion into its proper position as a battalion in line, and ready for any change of front that might be thought necessary.

On the word "PREPARE TO CHARGE," the front rank will "Trail Arms." The rear rank men will "Slope Arms."

On the command "CHARGE," the front rank will bring their rifles to the "Charge," the whole line breaking into double time.

On the word "HALT," the line will "Halt" and "Shoulder Arms." A six Company Battalion in line will extend. Nos. 1 and 5 from the left, Nos. 2 and 6 from the right, Nos. 3 and 4 form the reserve, the color party to move 150 yards in rear of the reserve. The flank supports to be wheeled outwards to protect the flanks.