

The following shows the portions of the subject studied in each class :—

Theoretical Part.

- IV Class.—Field Fortification.—Nature and construction of the works required for the defence of a position.
 III Class.—Permanent and Semi-Permanent Fortification.
 II Class.—Attack and Defence of Fortresses, including mining, and Applied Field Fortification.
 I Class.—Applied Field Fortification—continued. Use of Field Fortification by the Attack, and Pioneer duties.

Engineering Drill.

- 3rd Term (principally II Class).—Field Fortification, and the Attack of Fortresses, excluding mining.
 4th Term (principally I Class).—Mining, Electrical Testing, and Pioneer Duties.
 The following is a detailed syllabus of the course for each class :—

4th CLASS.

OBLIGATORY.

FIELD FORTIFICATION.

1. *INTRODUCTION.*—Sketch of the defence and attack of a position, showing the advantage of using field fortification and to obtain an insight into the works required. These works must conform to the principles of defence, which are unchangeable, but their nature will also depend on the effect of the arms in use. Consideration of the principles of defence. Effect of the arms at present in use.

2. *Tools.*—Various kinds and how carried.

3. *Materials.*—Raw : how obtained ; earth, wood, brushwood, iron, &c.

Manufactured : how made ; pickets, fascines, gabions, hurdles, &c.

4. *Revetments.*—When required. How made. Anchoring. Comparison of the various kinds.

WORKS required for the defence of a position.

5. *Clearing the foreground.*—Object. Requirements, and how fulfilled.

6. *Obstacles.*—Object. Divided into natural and artificial. Principles and requirements. Description of the various kinds of artificial obstacles used, namely : Abattis of various kinds. Entanglements. Wire entanglement. Irregular pits with wire entanglement over. Chevaux de frise. Palisades. Fraises. Military pits. Inundations, &c.

Cover for Troops—For Infantry :—

7. To cover shooting line.—Requirements, and how generally fulfilled. Description of the various works used, namely : Shelter trenches, earthen breastworks, (larger parapets under the head of redoubts). Log parapets. Stockades. Defensible walls, hedges, snake fences, &c.

8. To cover supports.—Requirements and how generally fulfilled. Description of the various works used, namely : Adaptation of natural cover, deep trenches, blinded trenches, field casemates, &c.

9. To cover reserves.—Requirements and how generally fulfilled. Description of the various works used, namely : Adaptation of natural cover, shelters, etc.

For Artillery :—

10. To cover the gun, gun detachment and ammunition.—Requirements and how generally fulfilled. Description of the various works used, namely : Adaptation of