β. On the construction.

γ. On the profile.

δ. On the trace.

c. *The Italian School.*

Introduction of the bastioned trace, origin of the ravelin. Paciotto's trace, the first regular bastioned work.

d. *The Dutch School.*

Its orgin and distinguishing characteristics.

Example Coevorden.

Improvements by Coehorn, his principles and methods of construction.

e. *Early French School, mention.*

f. *French School under Vauban and his successors.*

α. Vauban's systems, 1st and 3rd. Cormontaiugne's improvements.

β. The modern French system, school of Mezières, school of Metz.

g. *Opposition to the bastioned system* in France by Montalembert. Sketch of his proposals, partly adopted by Carnôt.

Method proposed by Carnôt.

h. *Rise of the polygonal system in Germany.*—What it owes to Montalembert, and to the early designs of Dûrer (16th century).

The modern Prussian system.

Antwerp, as an example of the latest design on the polygonal system.

SEMI-PERMANENT FORTIFICATION.

A. INTRODUCTORY—

Definitions.

Objects to be attained. Requirements.

Means available for construction of semi-permanent works, including time.

Characteristics of semi-permanent works,

Cases in which they are applicable.

B. APPLICATION.

a. To semi-permanent detached forts.

b. To semi-permanent enceintes.

Requirements, and how carried out under each of the above heads.

C. EXAMPLES OF SEMI-PERMANENT WORKS—

Various.

Plates:—

I. Permanent profiles.

II. Bastioned trace.

III. Sections and elevations of the modern French system.

IV. Sections and elevations of the Antwerp enceinte.

V. Detached Fort.

VI. A semi-permanent work.

Fair Notes.—On lectures during the term.

Exercises.—Examples of permanent profiles and bastioned traces.

Subjects for each examination,

December.—Sections A, B, and C. Permanent Fortification.

March—Sections D and B. Do. Do.

June.—The whole subject.

Marks:—

For work done during the term..	500
For examinations, December...............	250
March...	250
June..	500
Total...................:	1,500