Reclamation of Land .- Clearing, stumping, stoning, fallowing, etc.

Soils.—Origin and distribution of soil; natural conditions of soil and plant; examination and classification of soils; physical and chemical properties of each kind.

Rotation in Cropping.—Importance and necessity of rotation; principles underlying it; rotations suitable to different kinds of soil; examination and criticism of different systems of rotation.

Buildings.—Location of house, barn and stables; framing a building; stables for horses, sheep and cattle; arrangement of farm buildings.

Implements and Machinery.—Principles in construction of implements and machinery; points to be aimed at; classification, examination, and description of the same.

Miscellaneous .-- Roads, lanes, fences, wells, etc.

## Department 2.-Science.

Chemical Physics.—Matter, accessory and essential properties of matter; attraction, various kinds of attraction—cohesion, adhesion, capillary, electrical, and chemical; specific gravity; weights and measures; heat, measurement of heat, thermometers, pyrometers, specific and latent heat; sources, nature, and laws of light; spectrum analysis.

Inorganic Chemistry.—Scope of subject; elementary and compound substances; chemical affinity; symbols; nomenclature; combining proportions by weight and by volume; atomic theory; atomicity of the most important elements; oxygen and hydrogen; water—its nature, functions, decomposition and impurities; nitrogen; the atmosphere—its composition, uses, and impurities; ammonia—its sources and uses; nitric acid and its connection with plants; carbon; combustion; carbonic acid and its relation to the animal and the vegetable kingdom; sulphur and its compounds; manufacture and uses of sulphuric acid; phosphorus; phosphoric acid and its importance in agriculture; chlorine—its bleaching properties; bromine; iodine; silicon, etc.

Natural History.—Nature of life; vital force; difference between animals and plants; morphology and physiology; homology and analogy; definition of species; classification; subdivisions of the animal kingdom; characters of the classes and most important orders of *Invertebrates*; general characters of *Vertebrates*; classes and orders, with a brief description of each.

## Department 3 .- Veterinary Science.

Anatomy and Physiology of the horse, ox, sheep and pig; osseous system, muscular system, syndesmology, plantar system, and odontology.

## Department 4.-English.

Lectures on Composition.—The sentence, the paragraph, and the period; capitals and punctuation; style—its qualities and varieties. Exercises in Composition.

English Classics.—Committing to memory, and critical study of "Gray's Elegy in a Country Church Yard."

## Department 5.-Mathematics.

Arithmetic.—Review of subject, with special reference to farm accounts; tables of weights and measures discussed; compound proportion, interest, discount, stocks and partnership.

Mental Arithmetic.-Calculations in simple rules, fractions, and compound rules.

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