- (b) Soil Physics. Elementary physics of the soil, soil moisture, heat and air, principles of tillage.
- (c) Mechanics. Units of Measurement, velocity, acceleration, force, energy, work, horse-power, friction, draft; practical study of simple machines, such as lever, windlass, pulley, etc.

Text Book: Lyon Fippin & Buckman—Soils, their Properties and Management (Macmillan).

Physics IV-

- (a) Surveying and Drainage. Measurement of fields and farm with the chain; calculating areas and drawing plans; use of various instruments for determining levels; preparing plans of drainage, systems of draining; practical work in soil physics.
- (b) Electricity and Magnetism. Elementary Electricity and Magnetism; Lightning and lightning protectors; electric light; storage batteries; motors; dynamos; telephone; telegraph.
 - (c) **Ventilation**—Principles, systems. Text Book: King—Physics of Agriculture.

BIOLOGICAL SCIENCES.

Biology.—Introductory Course as in— Text Book: Abbott, J. F.—Elementary Principles of General Biology (Macmillan), with illustrative practical work.