Text Books.—Gillespie's Higher Surveying (b), (c). Chauvenet's Spherical and Practical Astronomy (c). Nautical Almanac for 1890 (c). Chambers' Practical Mathematics (c). Fee for Special Students, \$15.

(IV.) APPLIED MECHANICS.

STATICS-

The Calculation of the Stresses in Framed Structures, Solid and Rivetted Beams, Stone Arches, etc. Both Graphical and Analytical Methods used.

THEORY OF THE STRENGTH AND ELASTICITY OF MATERIALS-

DESIGNING OF STRUCTURES in Timber, Iron and Masonry-Arches, Retaining Walls, Foundations, Roofs, Bridges, etc.

DYNAMICS-

Representation and Measurement of Forces and Motions.
Principles of Work and Energy.
Efficiency of Machines. Friction.
Transmission of Energy—Belts, Shafts, Crank and Connecting Rod, etc.
Fly-Wheels, Governors.
Balancing of Machinery.

Etc., etc.

STRENGTH OF THE PARTS OF MACHINES.

MACHINE DESIGN.

HYDRAULICS-

Discharge of Water through Orifices, Notches, etc. Flow in Pipes, and Open Channels. Water Power. Water Wheels, Turbines, Pumps, etc.

0

THERMO-DYNAMICS AND THEORY OF THE STEAM ENGINE.