

§XII. APPARATUS AND MUSEUM.

PHILOSOPHICAL APPARATUS.

LIGHT.—Besides a Foucault's Regulator for the Electric Light, an Oxyhydrogen Lamp, a Porte-lumiere for Solar Light, and the usual instruments for the complete illustration of the phenomena of Reflection, Refraction, Dispersion, Achromatism, Vision, &c., the collection contains the means of illustrating Spectrum Analysis by projection on the screen ; a Spectroscope, Duboscq's Projection apparatus for Double Refraction and Polarization, with a large collection of crystals ; two Norremberg's Polariscopes, and apparatus for Interference. It has also Duboscq's Diffraction Bench and apparatus, including the means of measuring the length of a wave of light by Babinet's method, Fresnel's Mirrors for Interference, a Biprism, &c. By means of this last collection photographs of diffraction phenomena have been taken in the College, which are projected on the screen for class illustrations.

ELECTRICITY.—For Electrical experiments there is a large plate-machine with the usual concomitants of Leyden jars, &c. ; also a Holtz machine ; a large Induction coil by Ruhmkorff with Foucault's contact-breaker, giving an eight-inch spark ; an Electro magnet of the largest size, with arrangements for experiments in Diamagnetism, and for the "Magnetization of light ;" a Gaugain's Tangent Galvanometer with two circles, by Elliott Brothers, of London ; a Thomson's Astatic Reflecting Galvanometer of high resistance with set of shunts, &c., by the same makers ; other galvanometers ; Wheatstone's Bridge and Wheatstone's Rheostat, &c., for Electrical measurements ; Delezenne's circle to show induction by the earth's magnetism ; Geissler's tubes, &c.

HEAT.—In the collection for Heat there are large silver-plated Reflectors, &c., apparatus to show formation of vapors in a vacuum and maximum tension ; Thermopiles, with condensers ; two different arrangements for exhibiting the phenomena of Calorescence, &c.

SOUND.—The collection for Sound, containing Organ-pipes and Bellows Tuning forks, Sonometer, Siren, Vibrating-plates, apparatus for singing-flames, &c., is almost wholly from Koenig, of Paris. The most recent additions include :—The double Siren of Helmholtz, Lissajou's apparatus, Resonators, with arrangements for manometric flames ; Quincke's apparatus for Interference, &c., Melde's apparatus for the study of vibrating strings ; Tisley's compound Pendulum apparatus and Edison's Phonograph.

MECHANICS AND HYDROSTATICS.—A good collection.

THE MUSEUM OF GEOLOGY AND NATURAL HISTORY.

The collections in Mineralogy and Geology, and part of those in Zoology, are arranged in the Central Hall of the Museum and the gallery surrounding it. The Carpenter collection of Shells occupies a separate fire-proof room. The Botanical Collections occupy the west corridor, and the east corridor is used as a store-room and work-room. All the specimens are, as far as limited space will permit, so arranged and labelled as to be accessible and instructive to Students.