SYLLABUS

OF

DR. ALBERT J. BERNAYS'

Course of Lectures on Chemistry,

AND

NATURAL PHILOSOPHY.


LECTURE II.—ELEMENTS and COMPOUNDS.—Sixty-three elements: divided into non-metallic and metallic. Compounds produced by the union of two or more elements.—EQUIVALENTS or combining proportions represent the relative weights of the ultimate particles of each element. Atomic weights. Combining volumes.—Chemical notation and symbols.—CHEMICAL AFFINITY: exerted with different but definite degrees of force when dissimilar bodies are brought into close contact. It brings about a complete change, and marks without destroying the properties of bodies.—Difference between mixture and combination. Sulphur and iron may be mixed; a magnet will separate the iron, bisulphide of carbon the sulphur. Heat them, they will combine to sulphide of iron, upon which neither magnet nor bisulphide of carbon will produce an influence.—ANALYSIS.—SYNTHESES.

LECTURE III.—WEIGHTS AND MEASURES.—The pound (avoirdupois) contains 7000 grains. The gallon contains 10 lbs. The French Litre is equal to 1·765 or 1½ pints: the gramme, to 15·432 grains. 1000 grammes form the kilogramme.—SPECIFIC GRAVITY: the weight peculiar to each body compared