

useful. I advise every chemist, metallurgist, and assayer to procure the book.

JOSEPH W. RICHARDS.

ANNUAIRE DE L'OBSERVATOIRE MUNICIPAL DE PARIS, DIT OBSERVATOIRE DE MONTSOURIS, POUR L'ANNÉE 1900. Librairie Gauthier-Villars, Paris. 18mo. 563 pp. Price, 2 francs.

The principal work of this observatory is not star-gazing, but a supervision of the hygiene of the city, as a short perusal of this somewhat belated, but yet valuable, yearly report shows. Founded in 1870, its work is now along the following lines: I. Physical and meteorological, including, besides the usual records, a study of atmospheric electricity, of smoke, of the air of the sewers, etc. II. Chemical, comprising the composition of the air in different parts of the city, in schools, public buildings, sewers; the examination of the water supply, of the Seine water, of the sewer water, and of the subterranean waters in and around Paris; of the rain, snow and fog; also sanitary questions submitted by the municipality, as the efficiency of disinfectants, etc. III. The micrographic service makes bacteriological examinations of the air, water, food, drains, sewage, Seine water, soil, and has a special service for contagious diseases.

The thousands of analyses, conveniently tabulated, will be of great interest and value to all concerned in the sanitation of cities or towns. For example, the carbonic acid in the air at Montsouris, taken every day for fifteen years, averaged 30 liters per 100 cubic meters. It is greater in winter than summer; also greater at night than in daytime at Montsouris, but *vice versa* in Paris.

Altogether, the book is well worth its price, especially to the sanitary chemist.

JOSEPH W. RICHARDS.

EXPERIMENTAL PHYSICS. BY EUGENE LOMMEL. Translated by G. W. MYERS from the third German edition. Philadelphia: J. B. Lippincott Co. 1900. xxii + 664 pp.

Eighty-two pages are devoted to motion, 23 to solids, 31 to liquids, 35 to gases, 81 to heat, 17 to magnetism, 56 to electricity, 114 to electrical currents, 47 to waves and sound, 157 to light. This is one of the best text-books on physics that has ever been written, and we have here a very creditable English translation. No book and no translator can hope to avoid all slips and the definition of electromotive force as a quantity of work (p. 334) is