hemoglobin fixes carbon monoxide and in all probability a relatively large part of aerial CO is disposed of in this way. The hemoglobin binding CO is destroyed in the liver, the CO probably remaining attached to the protein end of the globin, and not to the biliary and urinary pigment which result from the decomposition of hemoglobin. The globin is excreted as urea, ammonia, etc., while some may be retained as amino-acid, but doubtless the CO globin is treated as foreign material and excreted. Another method of disposal of aerial carbon monoxide is the union in sunlight, with the halogens, bromine, iodine, etc., of our atmosphere and with the fluorine freed in the mountainous districts during storms involving lightning. In such cases, the carbon monoxide is converted to a carbonyl halide or to CO_2, in either case being capable of utilization by bacteria, plants with chlorophyll, etc.

The above communication was written previously to the publication of Lamb, Bray and Frazer's contribution from The Chemical Warfare Service entitled "The removal of carbon monoxide from the air" in the J. Ind. and Engineering Chemistry, March 1920, Vol. 12, p. 213. W. M.

THE ATTAINMENT OF HIGH LEVELS IN THE ATMOSPHERE

To the Editor of Science: In the April 9, 1920, issue of Science, Dr. J. G. Coffin, on behalf of the Curtiss Aeronautical and Motor Corporation, questions the record of Major Schroeder, namely 36,020 feet, given in my brief review of high level records, in Science, March 19, 1920.

So far as I can now ascertain, Dr. Coffin is justified in questioning this particular record. The director of the Bureau of Standards informs me that the bureau has not yet determined the true altitude and that when determined it will be for the Air Service to make proper announcement. With such imperfect data, as I can now obtain, the approximate values are: Rohlfs, 9880.5 meters (32,418 feet); Schroeder, 9505.0 meters (31,184 feet). These are the elevations corrected for mean air column temperature, vapor pressure, gravity, altitude and latitude. The main reduction factor is of course the temperature. These results, however, must not be accepted as final. Until final and authentic data are forthcoming, the justice of Dr. Coffin's criticism must be admitted. The words "The record now stands—Schroeder, February 27, 1920, 10,979 meters" in Science, No. 1316, p. 288, should be accepted with reservation.

Let us hope, however, that before the end of summer both of these plucky aviators will have attained a true height of 10,000 meters.

Alexander McAdie
Blue Hill Observatory,
April 22

SCIENTIFIC BOOKS

Introduction to General Chemistry. By Herbert N. McCoy and Ethel M. Terry. Chicago, Ill., 1919. Pp. viii + 605.

The subject matter covered in the course in chemistry given to the freshmen class at the University of Chicago is the basis for this text-book. It does not aim to include all the material usually considered in a course in descriptive inorganic chemistry; the facts of the science are used primarily to illustrate fundamental principles and laws. A brief statement of the order in which the material is treated will bring out the point of view of the authors. The first chapter deals with the measurement of gases. In the next four chapters the fundamental concepts of the science are developed; these include indestructibility of matter, a pure substance, an element, analysis of substances, law of definite composition derivation of formulæ. Acids, bases, and salts, water and solutions, the kinetic theory and the atomic hypothesis are next considered. A chapter on chlorine and its compounds with hydrogen and metals is followed by a consideration of chemical equilibrium, oxidation and reduction, heat and energy. Three chapters are devoted to the ionic hypothesis and one to electro-chemistry. Nitrogen, phosphorus, sulphur and carbon and their simple compounds are then described. A rather long chapter on organic chemistry in which structural formulæ are