

The attempt lately made to use salts of alumina for preserving meat renders it of interest to know whether or not meat naturally contains this product. The information on this subject contained in the book is necessarily very meager. Aluminum has been found in the ash of milk where it exists in conjunction with oxide of iron.

It is stated on page 50 that a trace of alumina has been found in veal and in the ash of beef. Fifteen per cent. of the ash of egg albumin is stated by one author to consist of phosphate of alumina. The large quantity of alumina found in bat excrement, noted on page 50, may be wrongly interpreted as it stands. The excrement in question, as will be seen by consulting the *American Chemist* cited, contained a quantity of material which is stated by McMurtrie to be an accumulation of silicious clay. It is probable, therefore, that the greater part of the alumina, reported in this excrement, came from the earth and not from the bats. It is to be regretted that the data relative to the natural occurrence of alumina in edible meats are so meagre in chemical literature.

The occurrence of alumina in natural waters is not a matter of surprise and the data in regard to this are very full and complete.

The book will be found of interest, especially to analytical and physiological chemists and health officers.

It is evident from an inspection of the data in the book that the occurrence of traces of alumina in certain food products may often be expected.

H. W. WILEY.

THE ELEMENTS OF PHYSICS. VOL. I.: MECHANICS AND HEAT. BY EDWARD L. NICHOLS and WILLIAM S. FRANKLIN. Third edition, rewritten, with additions. New York: The Macmillan Co. x + 290 pp. Price, \$1.90 net.

As the earlier editions of this work have been previously reviewed in this Journal (25, 113), little more is necessary than to call attention to the appearance of the new edition, and to the facts that several important chapters have been rewritten, that a new one on the Transfer of Heat has been included, and that a valuable set of 66 problems has been added. The work is characterized by great conciseness of statement, by the definition of a vast number of physical concepts, and by the formal statement of many principles, which are discussed briefly and abstractly, and are mathematically formulated and demonstrated wherever this is possible. The work seems adapted far more to the advanced student of physics, who might desire to review and make more precise his conceptions of the subject, than to the ordinary college student.

A. A. NOYES.