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EDITORIALS.

USES FOR RARE ELEMENTS AND SPECIAL COMPOUNDS.

It frequently happens that investigators have put aside and regarded as impracticable, the suggested use of many of the more difficultly obtained chemical elements and compounds, in consequence of the fact that some of these are at present regarded as unavailable—whether such unavailability is the result of either a very limited present supply, or a cost which is prohibitive for the purpose for which the material is desired.

Manufacturers are throwing away many materials which are, at present, looked upon as waste products, and would gladly welcome any suggested use for the same. Through the coöperation of the investigator and the manufacturer, mutual difficulties might be overcome. With a more intimate coöperation, the requirements of the investigator might be supplied by utilizing the waste products of the manufacturer.

The fundamental step towards obtaining this coöperation must be the securing of information concerning the availability of the materials needed and the uses which may be made of them.

When we consider the marvelous improvements recently brought about by the application of electricity to chemical industry, and the accomplishment

thereby of results hitherto unobtained, we must be prepared to revise some of our information concerning materials previously regarded only as "museum specimens," and place many of these in the category of substances practical for industrial purposes.

Twenty-five years ago aluminum was not commercially available; to-day, millions of pounds are used in the industries. Only a few years ago, the element silicon was regarded as a curiosity; to-day it may be purchased by the ton—uses having been found for it and convenient methods devised for its preparation. The same might be true of many other elements and compounds, which, at the present time, have but little application.

The Division of Industrial Chemists and Chemical Engineers now has a committee which is endeavoring to deal with this problem. This committee will probably act in the capacity of a clearing-house between the manufacturer and consumers. The committee is composed of former President W. R. Whitney, of Schenectady, N. Y., M. C. Whittaker, of Gloucester, N. J., and Gellert Alleman, *Chairman*, of Swarthmore, Pa. The members of this society are asked for suggestions regarding the scope of the investigations to be undertaken, and we hope that all will aid in this important work.

The committee proposes to publish as complete a list of the prices and availableness of the chemical elements as it can obtain, and would be glad to get information to add to this list. It will later probably take up relatively novel or newly available compounds. Such new compounds as come to the notice of members will receive attention by the committee if they are informed of them. GELLERT ALLEMAN.

ORIGINAL PAPERS.

A COMPARISON OF THE METHODS FOR DEPOSITING IRON ELECTROLYTICALLY.

By S. A. TUCKER AND E. SCHRAMM.

Received April 1, 1910.

The experiments herein described include the sulphate and chloride baths as these have been used by most investigators. Other electrolytes have been tried without much success, such as ferrous fluor-silicate, but it was considered best to restrict the experiments to the more promising methods and, by comparing them under certain conditions, to decide which would be the most practical for the deposition of metallic iron.