## A.O.C.S. Commentary-

## Official Supplies of the Society

THE Society of Cotton Products Analysts, which was the predecessor of our present American Oil Chemists' Society, provided an opportunity for chemists engaged in the control of oil mill and refinery operations to meet regularly for a discussion of their mutual problems. One of the first subjects to engage the attention of the Chemists' Committee was the compilation and editing of the few simple yet standard methods of chemical analysis. The wide variation in analytical

procedures used was recognized as the chief cause of the frequent disagreements between laboratories, a situation which, at that time, was accepted as inevitable. Once an organization was formed, swift measures were taken to bring some semblance of order out of this analytical chaos.

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The outbreak of World War I in Europe caused further complications for chemical laboratories everywhere in this country. The United States had been almost wholly dependent upon the great chemical industries of Central Europe for its reagent chemicals and laboratory apparatus. Who of that generation does not remember Jena chemical glassware and pure chemicals by Kahlbaum? Eastman Kodak and Corning Glass soon supplied this need with a few items in what have since become the Eastman Organic Chemicals List and the familiar Pyrex Brand of laboratory glassware. Our National Bureau of Standards certificates and markings soon replaced those issued by the German "D.R." Manufacturers of balances, weights, and volumetric apparatus were aided tremendously by these standards of quality.

It was during this difficult war and post-war period that our first official supplies were issued. In an engineering survey the point of reference is a bench mark whose altitude above sea level is known or agreed upon. In a similar manner the basis of every chemical analysis is a reference standard chemical whose purity is so well established that it can be accepted by all concerned. It is not surprising that among the first AOCS Official Supplies

were Standard Sodium Carbonate and Standard Ammonium Sulfate for use, respectively, as acidimetric and ammonia standards. Official Moisture Dishes were added to the list when it became known that this important determination is affected by the shape and size of the container as well as by the necessity for a tight but easily removable cover.

The bleachability of an oil is determined by its color grade after a carefully controlled bleaching test, performed under specified conditions and with a bleaching earth of standard potency. It is obvious that the uniformity and stability of this standard earth are of utmost importance. In the early '20's English earth was generally used in the cottonseed oil industry so quite naturally it became the logical standard for the bleach test. A few hundred pounds could be prepared rather easily, by hand mixing and screening, and this quantity was enough for several years' supply. Today it is necessary to select 18 to 20 tons of earth and subject it to exhaustive tests for uniformity and dosage in order to assure an adequate supply for the huge demand from our edible oil industry. Our stocks of natural and activated earths are being replenished in this manner.

IN 1945 all official supplies were moved from New Orleans to the Society headquarters in Chicago. When the office was no longer large enough to accommodate the mountain of cans and bottles, Central Scientific Company was designated as our distributor for official supplies. Since 1947 the task of keeping stocks replenished has been a duty of the Uniform Methods Committee. In actual practice the assistance of the appropriate technical committee is enlisted, and the Uniform Methods Committee gives final approval after quality tests have been found satisfactory. In the case of standard bleaching earths approval also must be obtained from the Chemists' Committee of the N.C.P.A. and the Technical Committee of the N.S.P.A.

In addition to the standard supplies already mentioned, the Society furnishes an Official Diatomaceous Earth and a Standard Salt Crude Glycerin. The latter is useful in checking laboratory techniques employed in analyses made upon crude glycerins in commercial transactions. Orders for official supplies are placed with the American Oil Chemists' Society, 35 East Wacker Drive, Chicago 1, Illinois. Information on prices may be found in the advertisement on the last page of this issue.

J. T. R. Andrews

Chairman, Uniform Methods Committee Procter and Gamble Company Ivorydale, Ohio