NOTES AND CORRESPONDENCE

Cooperative Analytical Work of the American Oil Chemists' Society

Editor of the Journal of Industrial and Engineering Chemistry:

The system of collaborative work on the analysis of meals, formerly known as check meal work, which has been under operation in the American Oil Chemists' Society for the past six years, is to be conducted this year on a greatly enlarged scale.

The main object of this collaboration is to provide a reliable means whereby chemists may discover tendencies of their laboratory organization to deteriorate in the accuracy of the work done, and may locate and eradicate the causes.

This season the work will deal with four groups of samples: meals, feedstuffs, or allied materials; fertilizers; fats; and crude oils.

The meal series, to be analyzed for moisture, oil, and ammonia, will consist of forty samples which are to be reported weekly, beginning August 8. These samples, it may be added, will include high protein wheat flour, linseed meal, brewers' grain, beet pulp, cottonseed meal, peanut meal, soy-bean meal, etc. The fertilizer series will contain eight samples, to be reported monthly, beginning September 19. Six fat samples will be issued, each to be analyzed for one or more constants. These are to be reported monthly, beginning September 5. In the crude oil group, two samples of cottonseed and one of peanut oil will be issued for refining tests.

All tests on fertilizers and fats are to be made strictly in accordance with specific directions. With the crude oils, the method of refining will be defined, and the strength of lye prescribed. The methods for determination of oil, ammonia, and moisture on meals will be left to the discretion of the analyst, provided the major details comply with the Official Rules.

As in previous years a laboratory cup will be awarded to the analyst whose total average efficiency on the entire forty meal samples, for both oil and ammonia, is highest. At the close of the series, accuracy certificates will be awarded for meritorious work in the various groups.

The work is open to any interested chemist, whether he be a member of the Society or not. It should appeal specially to the various types of feed and food chemists. A number of State and Federal chemists have been included among the collaborators in the past. During the past year, 107 chemists took part in the work.

Federal and State chemists may obtain any or all of the series free of charge. Members of the American Oil Chemists' Society will be allowed a discount of 25 per cent on the prices listed in the bulletin issued by the Society. The bulletin also gives details as to the distribution and handling of samples and methods of calculating accepted averages and of rating work, and also includes a list of dates before which reports of results must be in the hands of the chairman.

F. N. SMALLEY, *Chairman*

THE SOUTHERN COTTON OIL CO.
SAVANNAH, GEORGIA
June 6, 1921

The Volumetric Determination of Aluminium in Its Salts—Correction

In my paper on the above subject [THIS JOURNAL, 13 (1921), 420] certain errors, typographical and otherwise, escaped my correction.

In Table II, "0.27 N" should read "0.27 N." Similarly in Table VII, column 4, "0.27" should be "0.27" for the samples II to VI, inclusive.

The opening paragraph is too sweepingly phrased, since the opinions expressed are based partly on unpublished (and therefore uncriticized) work. I ask leave to insert "alone" before "is useless" in line 2, "prime" before "importance" in line 5, and "essential" before "part" in line 8.

ALFRED TINGLE

E. B. EDDY CO., LTD.
HULL, P. Q., CANADA
June 25, 1921

Civil Service Examinations

The United States Civil Service Commission has announced examinations for Valuation Aid at \$1200 to \$2500 a year, Assistant Valuation Engineer at \$2500 to \$3600 a year, and Valuation Engineer at \$3600 to \$4800 a year, with higher salaries in exceptional cases. Appointees at \$2500 or less may be allowed the increase of \$20 a month. Vacancies in the technical staff of the Income Tax Unit of the Bureau of Internal Revenue and similar positions will be filled from these examinations. The duties will involve the estimation of (1) the quantity of oil and gas or timber, (2) the theoretical and market values of oil and gas in place of standing timber, and their products, (3) the value of equipment ordinarily used in the discovery, exploitation, and utilization of such natural resources, and (4) the cost of development, exploitation, and utilization of natural resources. In addition, a general knowledge of the processes and conduct of the industry will be required. Separate registers of eligibles will be established for (1) oil and gas, and (2) the forest industry. Competitors will be rated on (1) physical ability—10 points, and (2) education, training and experience—90 points. Applications will be rated as received until September 1, 1921.

The Commission has also announced an examination for Assistant Metallurgical Chemist on August 17, 1921, to fill vacancies at the Naval Ordnance Plant, South Charleston, W. Va., at \$5.44 per diem, and similar positions. The duties of appointees will consist of analysis of steel, iron, alloys, and other metallurgical materials, and will require ability to make quick test analysis of steel for the following elements: carbon, silicon, manganese, sulfur, phosphorus, nickel, and chromium. Candidates will be rated on general chemistry and physics, metallurgical chemistry, and education and experience. Applicants must be high school graduates and must have had either two years' college training which included chemistry, physics and metallurgy, or at least one year of practical laboratory experience in the analysis of metals and metallurgical materials.

Utilization of Niter Cake

At the May meeting of the Manchester (England) Section of the Society of Chemical Industry, W. H. H. Norris outlined recent progress in the utilization of niter cake. Before 1915 niter cake was utilized in England to only a very small extent, and even with the increased production during the war over 80 per cent was used by methods which completely wasted the sodium sulfate content. The process of using niter cake for ammonia absorption was described. By this method 220 tons of niter cake are used for the production of 157 tons of salt cake and 87 tons of ammonium sulfate, the apparatus being run in conjunction with a Mond gas ammonia recovery plant. The process is of wide application and may be used either with ammonia absorption towers and dasher washers, or in the ordinary saturator as employed on coke ovens and gas-works liquor recovery plants. The operation works up its own waste liquors and requires a minimum of handling and evaporation. The niter cake is digested with heated process liquor, and the whole of the salt-cake content is precipitated in pure form, while the acid is taken into solution. The mixture is filtered and washed in centrifugals, and the resulting acid liquor is used for ammonia absorption. From the neutralized liquor, ammonium sulfate containing over 24 per cent ammonia is deposited, but when a definite density is reached the process liquor is run back to the digester to be used with a fresh charge of niter cake.