

# REPORT OF COMMITTEE ON ANALYSIS OF COMMERCIAL FATS AND OILS

The Committee on the Analysis of Commercial Fats and Oils made a progress report at the 1933 Fall Meeting of the Society and also, as a Committee of the American Chemical Society, made a report to that Society at the meeting held in St. Petersburg, Florida, March 26-29, 1934.

The Committee, at the present time has under considerations, the following work:

1. The preparation of more stable F.A.C. color Standards.
2. A further study of the Wiley Melting Point.
3. Further work on the development of a satisfactory method for reading the color of fish oils.
4. A study of liquid and solid fatty acid methods and calculations of the liquid and solid fatty acids based on the thiocyanogen and iodine values.

#### Color Standards:

A comparison of the old F.A.C. color standards with these prepared according to the formula suggested by Mr. J. E. Doherty of Lever Brothers, indicates that the Doherty standards, particularly in the lighter shades, have more permanence than the present F.A.C. Standards. However, when we placed an order for uranyl chloride to use in the preparation of the new standards, the material obtained was so impure that it was impossible to use it, and up to the present time a suitable supply has not been ob-

tained. We believe, however, that this difficulty will be eliminated within the next month or two. There is, however, a probability that it will not be feasible to use rubber stoppers in connection with the new reagents suggested by Mr. Doherty because of discoloration, etc.

#### Wiley Melting Point:

Since the Fall Meeting only two of the collaborating laboratories have furnished results made according to the latest modifications sent out, and therefore the Committee has no recommendations on this method to offer at this time.

#### Color in Fish Oil:

No further cooperative samples of fish oil have been sent out since the last meeting. However, a tabulation of the results on the last series of samples are given below. These results seem to indicate that a comparison with the F.A.C. standards yields results, in the hands of

the collaborators, which are in reasonably good agreement.

#### Liquid and Solid Fatty Acids:

The cooperative work on liquid and solid fatty acid methods is proceeding very slowly. As most of you know, the methods are long and tedious and the laboratories of the collaborators are already very busy with their regular work. The committee has collected some data but have no recommendations to make at this time covering these methods.

The only recommendation the Committee has to make is for the continuation of the Committee and the continued study of the methods now under consideration, with the inclusion of any others of interest to the membership.

W. H. Irwin, *Chairman*

R. W. Bailey      H. J. Morrison  
T. G. Law        H. P. Trevithick  
C. P. Long        J. J. Vollertsen  
M. L. Sheely      L. M. Tolman  
David Weason

TABLE I.  
FAT ANALYSIS COMMITTEE COOPERATIVE WORK ON FISH OILS  
(Second Series)

	Herring Oil				Sardine Oil				Whale Oil						
	FAC	Lovibond	Dilution		FAC	Lovibond	Dilution		FAC	Lovibond	Dilution				
	1"	1"	9-1		1"	1"	9-1		1"	1"	9-1				
	NDT	yel.	red.	yel.	red.	NDT	yel.	red.	yel.	red.	NDT	yel.	red.		
C. P. L.	13	35	4.1	20	2.0	11B	35	3.5	35	2.0	21	70	12.3	70	6.5
J. J. V.	9+	10	4.2	10	2.2	11B	20	4.7	35	2.7	19+	35	12.0	30	5.5
R. W. B.	11	18	2.9	11	1.5	11B	45	4.6	20	3.4	11C	45	13.0	20	5.2
W. H. I.	9+	25	4.1	16	2.2	11B	60	4.0	40	2.2	11C	50	11.4	50	5.4
M. L. S.	9	32	3.2	20	2.0	11B	35	4.0	20	2.0	11C	70	12.0	35	5.0
L. M. T.	15	35	4.5	15	1.9	11B	35*	4.1*	35**	1.7**					
H. P. T.	13	35	4.9	12	2.0	11B	70	4.7	35	2.1	11C	35	12.7	35	4.7

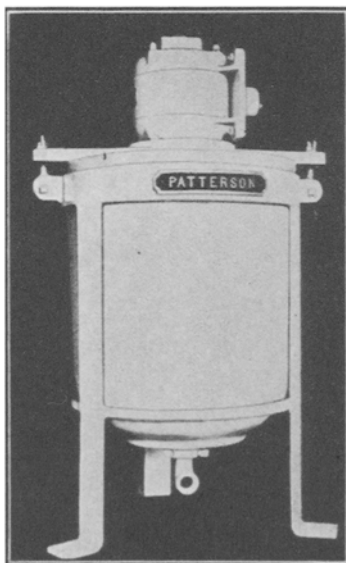
L. M. T. \*Better match with 55 yel. 4.1 red.

\*\*No match with 15 yel. 1.7 red.

## NEW DEVELOPMENTS

### Brings Out New Mixer

The Patterson Foundry and Machine Company, East Liverpool, Ohio, claims a new acid-proof, sanitary mixer for laboratory and small process work as one of its latest developments in the equipment field. The tank of the "Poromixer," as the machine is called, is made of pure white acid-proof Porox, glazed inside and out, having a round bottom with monel metal outlet valve flush with the bottom inside. It is fitted with a nozzle so that contents can be discharged in any direction and is equipped with a "Uni-power" agitator. It is claimed by the company to be acid-proof and sanitary



Picture to the right is the new Patterson "Poromixer"

and is easily cleaned. It will not contaminate the finest food products, pharmaceuticals, and chemicals, according to the company.



### Develop New Conduit

A new type of conduit that provides a ball-bearing surface that is claimed to greatly reduce wire pulling friction is the latest development of the electrical division of Steel and Tubes, Inc., Cleveland, Ohio. The inside of this new conduit, called "Electrunit Steel-tubes," is processed prior to forming and welding so that the entire surface is covered with small, round, raised knobs which produce what the manufacturer refers to as a "ball-bearing surface," according to officials of the company. The manufacturer claims that this type of contact surface reduces the surface friction 30% and in