should be tried out by members interested during the coming year.

Soya Bean Oil—No change.

Cold Pressed Oil—No change.

Reduced Caustic for Cottonseed Oils with 1.5 per cent F. F. A. or Less—No change.

Filter Paper—The refining method to be changed as follows, referring to the method as published in N. C. P. A. Rules 1932-33, page 148, under Refining Procedure, line 24. Eliminate the sentence beginning, "This oil is to be filtered" and substitute the following two sentences:

In case of expeller oils only, add 0.5 gram filtered (obtained from Secretary of the A. O. C. S.) and agitate in bleaching machine for 5 minutes at 250 r.p.m. at room temperature, to absorb colloidal matter. This oil is to be filtered through white filter paper of an approved brand (see below) and used for determination of grade.

Also, add the following note after the present note at the bottom of page 148:

Note: Approved brands of filter paper are
Eaton & Dikeman No. 617
Reeve-Angel No. 230.

Other brands not to be used unless first approved by the American Oil Chemists' Society.

C. B. CLUFF, *Chairman.*
E. R. BARROW,
R. H. FASH,
J. J. GANUCHEAU,
R. C. HATTER.

Report of Committee on Revision of Methods

The changes and additions in the methods made at the Fall meeting, 1931, and the Spring meeting, 1932, made necessary the reprinting of about 18 pages of our methods at a total cost of $69.00.

It was decided not to attempt to print the methods of the Soap Section until the Committees of that Section have had an opporunity to review the methods and get them in shape for publication. It is hoped that these methods will be ready by the time the next revisions are made, in July.

The committee wishes to urge upon the chemists interested in oils, fats and soaps, to place their names on the permanent list for the revisions as they are printed each year in order that there may be no confusion in the various laboratories due to the use of methods which are obsolete. The cost of these revisions does not exceed 50c.

W. H. IRWIN, *Chairman.*

Duty-Free Exportation Decreed for Animal Oils, Carbonic Acid Gas and Pastilles of Chicle

A Mexican presidential decree, published and effective February 10, exempts from export duty animal oils in any container (export tariff item 48, formerly dutiable at 0.01 peso per gross kilo), and creates two new items in the export tariff exempting from export duty carbonic acid gas (export tariff item 264-A) and pastilles of chicle, even when containing medicinal substances (export tariff item 282-A).

Research on Bleaching of Palm Oil With Benzoyl Peroxide*

By W. H. Dickhart

PALM oil was chosen for the subject because of its high color content. A sample of palm oil having a free fatty acid of 10.28 per cent (Palmitic acid) and a color reading of 35 yellow-33.3 red (one inch Lovibond cell) was heated to 130° C. and 6 per cent benzoyl peroxide added. The mixture was stirred at this temperature for 5 minutes after which the oil was filtered through filter paper and the color determined in the same manner as the original sample of oil. The color, after bleaching read 35 yellow 1.3 red. Comparing these results with 3 other bleaching agents using the same method we have 35 yellow 8.3 red, 35 yellow 9.9 red, and 35 yellow 11.5 red.

It is commonly known that certain palm oils will bleach by passing air through the oil at an elevated temperature. Having devised a convenient laboratory apparatus similar to the Phosgene gas boards that we had in the gas defense laboratories during the war, except I placed an oil jacket made of pyrex glass around each test tube. They were connected together with glass tubing and rubber hose in the normal manner, so that air could be drawn through each test tube at the same time by means of a vacuum pump. I made a four-tube board marking the tubes A, B, C and D. Into (A) tube I placed 50 grams of the original oil containing 6 per cent benzoyl peroxide and in each of the remaining three tubes the same amount of original palm oil containing 6 per cent other bleaching agents. The four samples were heated to 130° C. and held at this temperature for 30 minutes while hot air was being bubbled through the oils at the same time. After the time expired the bleached samples of palm oil were removed, filtered through filtered paper and the colors determined on each, as in the previous method. The colors of the bleached oils gave with 6 per cent benzoyl peroxide the heated air treatment (A) 35 yellow-1.9 red, while the other bleached samples gave (B) 35 yellow-5.2 red, (C) 35 yellow-7.1 red, (D) 35 yellow-3.2 red. Compiling the results we have:

	COLOR	
Original Oil	35 Y-33.3 R	(I inch L. C.)
Sample (A) (6% B. P.)	35 Y-1.3 R (5 min. at 130° C.)	(1 in L. C.)
Sample (B) (6% other B. A.)	35 Y-8.3 R (5 min. at 130° C.)	(1 inch L. C.)
Sample (C) (6% other B. A.)	35 Y-9.9 R (5 min. at 130° C.)	(1 inch L. C.)
Sample (D) (6% other B. A.)	35 Y-11.5 R (5 min. at 130° C.)	(1 inch L. C.)
Tube (A) (6% B. P. & H. A.)	35 Y-1.9 R (30 min. at 130° C.)	(1 inch L. C.)
Tube (B) (6% other B. A.)	35 Y-5.2 R (30 min. at 130° C.)	(1 inch L. C.)
Tube (C) (6% other B. A.)	35 Y-7.1 R (30 min. at 130° C.)	(1 inch L. C.)
Tube (D) (6% other B. A.)	35 Y-3.2 R (30 min. at 130° C.)	(1 inch L. C.)

*Merck's Index (4th edition) page 112.
B. A. (bleaching agents).