tatively the same as that of single pure soaps. For other regions of the diagram, however, some fractionation seems to occur.

Solubilities of various pure and commercial soaps are each characterized by a value of T_8, the temperature of ready solubility which can be precisely defined by reference to the lower temperature boundary of moderately concentrated isotropic solution. As an example, for a palm oil soap T_8 is 52° C. Above this temperature as much as 30 g. soap will dissolve in 70 g. of water. Only 2° C. below T_8 this solubility has fallen to 5 grams in 95 g. of water.

PATENTS

SILICATED SOAP. James Vail (Philadelphia Quartz Co.). *U. S. 2,243,054.* In the manufacture of detergents, the process which comprises slowly agitating granular particles of an expanded sodium silicate, having an apparent specific gravity not substantially exceeding 0.7 and having a molecular ratio of Na_2O to SiO_2 within the range of about 1:1.5 to 1:3.3, in the presence of liquid, soap-forming fatty acid in amount sufficient to form at least about 5% of soap in the final product and continuing the slow agitation without substantial disintegration of the silicate particles until no liquid fatty acid is visible and a granular product is produced, whereby soap is formed by accretion on the silicate particles, the resulting silicate soap particles being of substantially uniform composition, but having a slightly larger proportion of soap on their surfaces than at their cores and having the general form and physical characteristics of the original silicate particles and having an apparent specific gravity not substantially exceeding 0.9.

Report of the Color Committee

OUR first problem was to study the Spencer colorimeter, devised by one of our members, Dr. Estey. There was only one instrument available for circulation among the members, so the progress of the work has not been rapid, nor has it been completed. On the results so far reported, there seems to be a very fair agreement between the results given by the new instrument and those commonly in use. Dr. K. S. Gibson also approved the instrument in principle, but suggested the possibility of adding a pair of field lenses to reduce reflections from the walls of the instrument. This the Spencer Lens Co. will study when the instrument is returned to them.

Mr. I. M. Diller has worked on a photoelectric colorimeter designed by him, and manufactured by Hellige-Diller, Inc., for several years. The past year he has worked on its use in reading the color of petroleum oils with considerable success, and he is now planning to study the problem of using it on vegetable oils, getting results which can be easily translated into Lovibond readings. Mr. Diller is hoping that he can present a paper discussing the instrument at the fall meeting, and is also planning to do a lot of work on cotton oils of known Lovibond readings, and see if he can either calibrate the instrument directly for Lovibond readings or devise some simple means of translating his results into the Lovibond system. It will be sometime, therefore, before this instrument will be ready for our study.

Th eproblem of the filtration of cocoanut oil was further studied by a subcommittee consisting of G. W. Agee as chairman, and the following members:

E. B. Freyer — H. P. Trevithick
R. C. Stillman — E. G. Williams

This problem was studied last year by a subcommittee and further work was done this year. This subcommittee has studied the use of various filter papers, etc., and makes the following recommendations:

Change the method as now given on page 16 d (amended 1938) to read as follows:

CRUDE COCOANUT OIL

Approved Filter Papers—Eaton-Dikeman #1—Whatman H12 and Whatman #40. 25 cm. size is recommended, but smaller papers can be used, if the quantity of oil available is small.

Procedure—Melt the oil at 32.5°C, plus or minus 2.5°C (do not heat above 35°C), in a water bath and filter once through two approved filter papers, folded together. Discard the first 10 ccs. of the filtrate, before collecting the sample for color reading.

(The remaining portion of the method as printed, beginning with the words "Read the color" and ending with the sentence "Report both readings," shall remain as printed in the method.)

The subcommittee has studied other papers, temperatures, etc., and find that the method as outlined, using the three papers enumerated, gives clear oils and very satisfactory results.

The color committee therefore recommends that this change be made in our methods.

For the new year, this committee recommends that: (1) The work on the Spencer colorimeter be continued. (2) That the new committee study the work on the Hellige-Diller instrument, if finished, and make a report on its next year, if possible.

The previous committee made the following recommendations, which we were unable to carry out this year, and we suggest that they be studied by the new committee:

(1) Adoption of one and only one standard colorimeter.

(2) Check the color tubes and recommend sources of supply that are satisfactory.

(3) Study the question of painting the interior of the colorimeter white, instead of black, as at present.

(4) Specify the amount of illumination at the magnesia block.

(5) Improvement of the tintometer.

(6) Standardization of the yellow-red ratio.

We have finished the work of cocoanut oil and that subcommittee should be discontinued, in our opinion.

G. W. AGEE
M. G. BOULWARE
R. S. ESTEY
EGBERT FREYER
K. S. GIBSON
L. M. GILL
N. C. HAMNER
N. T. JOYNER
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