Abstracts

The following papers appear in *Industrial & Engineering Chemistry*, Vol. 18, No. 12—December, 1926:

Relationship during drying between the Acid Value of Linseed Oil and the Concentration of Cobalt Acetate—W. L. Evans, P. E. Marling and S. E. Lower.

Rate of Molecular Weights Increase in Boiling Linseed and China Wood Oils—J. S. Long and G. Wentz.

Fatty Oils as substitutes for Ethyl Alcohol in Citrus Flavors—H. A. Shuette and B. P. Domogalla.

The Rate of Polymerization of Perilla Oil—Maximillian Toch and T. T. Ling.

Sensitive Reaction for Carbon Disulphide—P. Saccardi. (Giorn. Chim. Ind. Appl., 1926, 8, 315-316.)

Anti-Rachitic Value of Irradiated Cholesterol—II. Separation into an Active and inactive Fraction—A. F. Hess, M. Weinstock and E. Sherman. (J. Biol. Chem., 1926, 70, 123-127.)

Saturated Aliphatic Alcohols from Sperm Oil and Spermaceti—E. André and T. Francois. (Compt. rend., 1926, 183, 663-665.)

Glycerides of Hydrogenated Whale Oil—G. Greitmann (Chem. Umschau, 32, 226, 1925).

The Raw Whale Oil had the following properties:

Iodine Number	145
Saponification Value	192
Free Acid	0.62%
Myristic Acid	About 5%
Palmitic Acid	" 5%
Stearic Acid	" 5%

After hydrogenation:

Iodine Number	1.3
Melting Point	55.5 degrees

By fractional solution (Boemer) and fractional precipitation (Heinz) the following glycerides were precipitated:

1st. Myristopalmitoarachine.....Melting point.. 49.5
2nd. Impure glycerides with enough acid radical C_{52}.....
Melting point..... 53.9
3rd. Palmitostearoarachine .....Melting point.. 57.3
4th. Distearoarachine .....Melting point.. 62.3
5th. Stearoarachobehenine or palmito.....Melting point.. 65.0
6th. Very small quantities of diarachobehenine or arachohibehenine.

The acid having the highest melting point was the Behenic Acid (79.0°). All the bodies here isolated were those formed by hydrogenation. The original oil contained small quantities of an unsaturated acid C_{14}. A little C_{16}, C_{18}, a great quantity of C_{20} and a little C_{22}. Apparently, all were present as mixed glycerides each containing an unsaturated radical of the Series C_{20} or C_{22}.

PEANUTS

Countries	Shelled		Not Shelled		Peanut Oil	
	Pounds	Dollars	Pounds	Dollars	Pounds	Dollars
Germany	110,620	9,090	.....	....	.....	.....
Netherlands	.....	....	.....	....	15,404	1,887
Spain	.....	....	10,090	1,062	.....	.....
China	115,480	8,023	82,620	3,361	52,738	4,349
Hongkong	.....	....	1,760	207	93,256	10,706
Japan, Inc. Chosen	.....	....	20,900	1,260	.....	.....
Total	226,100	17,113	115,370	5,890	161,398	16,942

OLIVE OIL, EDIBLE

Countries	In packages weighing less than 40 pounds		Other	
	Pounds	Dollars	Pounds	Dollars
France	121,338	16,629	172,913	29,506
Germany	.....	.....	30,132	912
Italy	3,117,747	542,183	711,972	161,748
Malta, Gozo and Cyprus Is.	25,635	4,597	.....	.....
Netherlands	.....	.....	2,283	460
Portugal	12,115	2,490	.....	.....
Spain	76,510	14,211	512,678	88,502
Total	3,353,345	580,118	1,429,978	281,128

The Safety Factor in Drying Equipment

(*Continued from page 22*)

in contact with the dry material.

While we have referred to high temperatures with these machines, this is used only in a relative sense and the machine is more properly described as a low temperature machine depending largely on the natural affinity of air for moisture; but on account of its design, the initial temperatures are considerably higher than might ordinarily be used resulting in greater efficiency and economy in size of apparatus.

As stated, all drying problems should have very careful study as to their characteristics which determine the best method of drying and it is particularly important to consider the cost of operation more than the first cost of the apparatus.