SPECIFIC GRAVITIES OF FATS, RESINS, ETC.

BY DR. H. HAGER.

The author first describes a simple method for determining these specific gravities. This consists in melting the respective fat, dropping it into a flat-bottomed vessel containing alcohol, in such a manner that the point from which the drops are allowed to fall is not over three centimetres distant from the surface of the alcohol, and that each drop be allowed to fall on a different spot. The fat globules thus deposited at the bottom are then removed to a liquid, consisting of either alcohol, water or glycerin, or mixtures of these, until after careful stirring and reduction or increase of the density, by the addition of one or another of the above liquids, the fat globules are held in equilibrium in any part of the liquid. The specific gravity of the latter is then determined, and this is, of course, at the same time the specific gravity of the fat. The author then gives a list of specific gravities, which is here reproduced :—

							Sp. gr. at 15—16° C.
Butter Fat, clarified by settling	..	..	..	..	..	..	0·938—0·940
„ „ several months old	..	..	..	..	..	..	0·936—0·937
Artificial Butter	..	..	..	..	..	..	0·924—0·930
Hog's Lard, fresh	..	..	..	..	..	..	0·931—0·932
„ „ old	..	..	..	..	..	..	0·940—0·942
Beef Tallow	..	..	..	..	..	..	0·925—0·929
Sheep's Tallow	..	..	..	..	..	..	0·937—0·940
Beef and Sheep's Tallow, mixed 1:1	..	..	..	..	..	..	0·936—0·938
Butter of Cacao, fresh	..	..	..	..	..	..	0·950—0·952
„ „ very old	..	..	..	..	..	..	0·945—0·946
„ and Beef Tallow, mixed 1:1	..	..	..	..	..	..	0·938—0·939
Expressed Oil of Nutmegs	..	..	..	..	..	..	1·016—1·018
„ „ „ extracted with carbon disulphide	..	..	..	..	..	..	1·014—1·015
„ „ „ adulterated with fatty acids	..	..	..	..	..	..	1·010—1·011

						Sp. gr. at 15—16° C.
Expressed Oil of Nutmegs, crystalline	..	..	..	..	..	0·965—0·966
Stearic Acid, melted and in drops	..	..	..	..	..	0·964
„ „ crystalline	..	..	..	..	..	0·967—0·969
Wax, yellow	..	..	..	..	..	0·959—0·962
„ African	..	..	..	..	..	0·960
„ yellow and resin, mixed 1:1	..	..	..	..	..	0·973—0·976
„ „ and paraffin, mixed 1:1	..	..	..	..	..	0·916—0·919
„ „ „ yellow ceresin, mixed 2:1	..	..	..	..	..	0·942—0·943
Ceresin, yellow	..	..	..	..	..	0·925—0·928
Wax, Japan	..	..	..	..	..	0·977—0·978
„ „ very old	..	..	..	..	..	0·968—0·970
„ white, very old and true	..	..	..	..	..	0·963—0·964
„ „ new	..	..	..	..	..	0·916—0·925
„ „ „ and stearic acid, mixed 1:1	..	..	..	..	..	0·945
Wax, sp. gr. 0·963 and stearic acid, sp. gr. 0·963 mixed 1:1	..	..	..	..	..	0·975
Ceresin, very white, pure	..	..	..	..	..	0·905—0·908
„ white	..	..	..	..	..	0·923—0·924
Araucaria Wax	..	..	..	..	..	0·990
Resin (fr. pine), yellow transparent	..	..	..	..	..	1·083—1·084
„ whitish, opaque	..	..	..	..	..	1·044—1·047
„ very dark colophony	..	..	..	..	..	1·100
Shellac, light coloured	..	..	..	..	..	1·113—1·114
„ darker	..	..	..	..	..	1·123
„ bleached	..	..	..	..	..	0·965—0·968
Dammar, old	..	..	..	..	..	1·075
Copal, East Indian	..	..	..	..	..	1·063—1·070
„ West Indian	..	..	..	..	..	1·070—1·800
„ very old	..	..	..	..	..	1·054—1·055
Benzoin, Siam	..	..	..	..	..	1·235
„ Penang	..	..	..	..	..	1·145—1·155
„ Borneo	..	..	..	..	..	1·165—1·170
Guaiac Resin, pure	..	..	..	..	..	1·236—1·237
Amber	..	..	..	..	..	1·074—1·094
Sandarac	..	..	..	..	..	1·038—1·044
Mastic	..	..	..	..	..	1·056—1·060
Balsam of Tolu, old brittle	..	..	..	..	..	1·231—1·232
(Kamala	..	..	..	..	..	1·115—1·120)
(Lycopodium	..	..	..	..	..	1·016—1·020)

Many of these figures may be used as criteria for distinguishing the various bodies.—*New Remedies*.