

Top finish: glass ring.

Graduation: All lines, figures and letters to be clear-cut and distinct. Each degree mark to be longer than the remaining lines. Graduations to be numbered at zero and at each multiple of 2 degrees.

Immersion: 45 mm.

Marking: "FAC Titer Test," a serial number and the manufacturer's name or trade mark shall be etched on the stem. The words "45 mm. immersion" shall also be etched on the stem, and a line shall be etched around the stem 45 mm above the bottom of the bulb.

Scale error: The error at any point on the scale shall not exceed 0.2° C.

Standardization: The thermometer shall be standardized at the ice point and at intervals of approximately 20°, for the condition of 45 mm immersion, and for an average stem temperature of the emergent mercury column of 25° C.

Case: The thermometer shall be supplied in a suitable case on which shall appear the markings "FAC Titer Test," "—2° to 68° C in 0.2°."

Note: For the purpose of interpreting these specifications, the following definitions apply:

The total length is the over-all length of the finished instrument.

The diameter is that measured with a ring gauge or micrometer.

The length of the bulb is the distance from the bottom of the bulb to the beginning of the enamel backing.

The top of the thermometer is the top of the finished instrument.

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| L. B. PARSONS | W. J. REESE |
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| J. E. MARONEY | S. O. SORENSEN |
| V. C. MEHLENBACHER, <i>Chairman</i> | |

Book Review

MICROBIOLOGY OF MEATS. By L. B. Jensen. The Garrard Press, Champaign, Illinois. 1942. 252 pp. Price \$4.

The book treats the microbiological aspects of the flesh food industry as gained by a bacteriologist from industrial practice and research, and a review of the literature on the subject. For this reason and because of the specific nature of the title one might assume it to be a handbook for bacteriologists in the meat industry. However, the book deals with the technical, chemical, and bacteriological sciences as applied to processing and preservation of meats and fats derived therefrom.

Chapter five on the action of microorganisms on fats is an excellent review on the subject. Since chemists have been the main developers of theories on rancidity and have emphasized principally the chemical and physical agencies with very little attention to the effect of enzymes and bacteria on

fats, this new book should stimulate a broader concept of the various phenomena that occur during fat spoilage. The author was the first to demonstrate a bacteriological mechanism which induces oxidative rancidity.

Although only one chapter in the book is devoted to the action of microorganisms on fats, the subject of bacterial discoloration and spoilage of fats is treated indirectly in most of the chapters devoted to flesh foods. The methods for handling "cutting" and "killing" fats and oils in a practical, sanitary manner to avoid rancidity and discoloration are discussed in detail.

M. M. PISKUR.

CORRECTION

Review of Literature on Fats, Oils, and Soap, 1941, part I, page 46—*U. S. 2,229,378* should read *U. S. 2,229,376*. Page 47—*U. S. 2,224,043* should read *2,244,034*.

Abstracts

Oils and Fats

Edited by

M. M. PISKUR and SARAH HICKS

A SEASHORE FAT FROM PIAUI. Camilla Rolin. *Rev. quim. ind.* 11, No. 118, 13-5 (1942). A hard waxy fat which is found in lumps at a depth of a few cms. along the shore near Parnaiba in Piaui, Brazil, is apparently derived from algae or from some low form of plant life. It is brown in color and has a strong penetrating odor. It is insol. in H₂O but sol. in the usual fat solvents; its density is 0.95. For a fat its m.p. is high (58-61°) but chemically it is a fat, not a wax, and it has a high free fatty acid content. This crude fat contains about 0.28% moisture, 0.8% ash, 0.14% S and 0.07% N. It has no drying properties; its I no. is only about 30. Industrially, the fat could be utilized in soap manuf. since it contains only about 0.5% unsaponifiable matter. It should be noted, however, that its soap is hard and

only sparingly sol. in H₂O. Its possibilities for use in other ways depend on its compn.; analysis indicates that it is particularly rich in palmitic and myristic acids. (*Chem. Abs.*)

THE NATURE OF THE FATTY ACIDS ASSOCIATED WITH STARCH. THE ADSORPTION OF PALMITIC ACID BY POTATO AND DEFATTED CORN AND RICE STARCHES. Leo Lehrman. *J. Am. Chem. Soc.* 64, 2144-8 (1942). Potato and defatted corn and rice starches take up palmitic acid from a methanol soln., probably by adsorption. A discussion of known facts leads to the conclusion that fatty acids assoc. with starch are probably adsorbed.

THE APPROXIMATE COMPUTATION OF MIXED GLYCERIDES PRESENT IN NATURAL FATS FROM THE PROPORTIONS OF THEIR COMPONENT FATTY ACIDS. T. P. Hilditch and M. L. Meara. *J. Soc. Chem. Industry* 61, 117-25