

NOTE ON THE MICROSCOPIC DETECTION OF BEEF FAT IN LARD.¹

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IN the preparation of crystals of lard and beef stearin for microscopic examination, I find the following method gives excellent results, the crystals being of good size and of distinctive form. Dissolve five cc. of melted lard in a mixture of ten cc. absolute alcohol and five cc. ether, in a small Erlenmeyer flask, heating gently if necessary. Place a plug of cotton in the mouth of the flask and allow to stand in a cool place for about half an hour. The stearin crystallizes out, the olein remaining in solution. Filter rapidly through a paper wet with alcohol, using a filter pump, and wash crystals and paper once with the above alcohol-ether mixture (10-5). Let the crystals dry in the air and remove them from the paper to the flask. Dissolve in twenty-five cc. of ether, replace the cotton plug, and place the flask in a slanting position in a large beaker (about one liter) nearly full of water. Keep this in a cool place over night. The ether evaporates very slowly and the crystals of stearin are gradually formed in the solution, the large quantity of water surrounding the ether solution guarding against any sudden change of temperature. For valuable plates giving characteristic forms of lard stearin crystals and beef stearin crystals reference is made to Bulletin No. 13, Part IV., Division of Chemistry, U. S. Department of Agriculture.

NOTES.

The Estimation of Levulose in Honey.—Through my negligence, I failed to call attention, on page 81 of the January number, to the optical method described by Allen, Commercial Organic Analysis, Vol. 1, p. 291, relating to the estimation of levulose by changes in the specific rotatory power due to variations of temperature.

H. W. WILEY.

A New Balance for First Year's Work in General Chemistry.
—The little balance shown in the cut was designed for the use

¹ Read at the Cleveland meeting, December 31, 1895.