

## METHODS FOR DETECTING OLEO IN BUTTER AND COTTON SEED OIL IN LARD.

BY THOMAS TAYLOR, M.D., MICROSCOPIST, UNITED STATES DEPARTMENT OF AGRICULTURE.

*Abstract of paper read before the Chemical Society of Washington, D.C., March 13th, 1890.*

### TO DETECT OLEO IN BUTTER.

[I believe that this method will prove useful for all practical purposes under the oleomargarine laws of the United States.]

Dissolve in 20 c.c. of petroleum benzine 140 grains of a mixture of oleo and butter. Heat slightly to secure a perfect solution of the fats. Caseine and animal tissues may be removed by filtering the liquid while it is warm. Fill a test-tube with the filtered solution and place it in ice-water. In from five to twenty minutes the oleo fat will separate from the butter fat, and falls to the bottom of the tube, being sparingly soluble in cold benzine, while the butter fat remains in solution in cold benzine. Separate the oleo fat from the liquid butter by filtration. The fat recovered may be solidified by mechanical pressure, placing it between several layers of filtering paper to absorb the remaining benzine, after which the sheet of solid oleo may be removed from the paper with a palette-knife. The butter may be recovered by evaporating the benzine by means of heat.

### TO DETECT COTTON SEED OIL IN LARD.

Dissolve in 20 c.c. of petroleum benzine 140 grains of a mixture of lard and cotton seed oil. Heat slightly to secure a perfect solution of the lard. Remove animal tissues by filtering as above. Fill a test-tube with the filtered solution and place it in ice-water. The fat will be precipitated, and falls to the bottom of the tube by reason of its comparative insolubility in cold benzine, while the cotton seed oil remains in solution. Separate the lard from the cotton seed oil by the use of filtering paper, and subject the recovered fat to pressure as in the case of butter and oleo, by which means the remaining benzine is absorbed. The solidified fat may be removed from the paper with a palette-knife. The benzine is separated from the cotton seed oil by means of heat.