

justed exactly to the specific gravity of olive oil. Fish oils being proved absent by Calvert's tests or by the smell, the following tests are used for seed oils :

1. The well-known nitrous acid or nitrate of mercury test.
2. The characteristics of the amides produced by liquid ammonia.
3. Fehling's test of the rise of the temperature produced by mixing with concentrated sulphuric acid.
4. The characteristics of the action of solution of carbonate of potash on the oil.

Class IV.—Rape oils are the border-land between drying and non-drying oils, and are employed both for burning and lubricating. The specific gravity varies from 0.912 to 0.916. It is quite likely to be adulterated with cotton-seed oil, which [1] increases the specific gravity (mineral and resin oils being proven absent); [2] it raises the freezing-point of rape oil, which is, when pure, perfectly liquid at 32° F. The other tests applicable are those for estimating the drying properties of the oil, or its tendency to gum, either by exposing on blotting-paper or in small capsules to 200° F.

Class V is represented by linseed oil, the drying oil proper, of specific gravity 0.937 at 60° F. Mineral and resin oils must be carefully looked for, and, in their absence, fish oils are easily detected by smell or Calvert's tests. Cotton-seed oil may be recognized [1] by decreasing the specific gravity, [2] materially raising the point of solidification, [3] decreasing the drying properties, which can be proved as above indicated.

Class VI.—Fish oils have a commercial value inferior to the other oils, because of their odor; hence they are not much liable to adulteration. They may, however, be mixed with each other, some varieties being much cheaper than others. The points to be observed are, [1] looking for mineral and resin oil, [2] examining the drying properties of the sample, [3] examining the viscosity.

Oleographs, or the figures formed by oils dropped on pure water, do not seem to have been studied by Mr. Coleman. With care and practice they may be made of considerable value in testing oils quickly and easily.

LINIMENT OF BELLADONNA.*

BY CHARLES UMNEY.

When extract of belladonna, made by the complete exhaustion of the root by cold alcohol, is dissolved in spirit of wine in such proportion that one part fluid shall contain an equivalent of one part by

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