

FLUID EXTRACT OF IPECAC.—In an inaugural essay (*Am. Jour. Pharm.* August) Mr. H. C. Watt gives the results of experiments made with a view of determining the best formula for making fluid extract of ipecac., more especially with reference to a preparation which would bear dilution with water or syrups without precipitation. Four methods were tried, one in which alcohol and water, 1 to 3, with addition of acetic acid, were used; a second with the U. S. P. menstruum, evaporating the preparation to a nearly solid consistence, adding water, then glycerin, allowing the mixture to deposit, and, finally, filtering; a third method in which alcohol was the menstruum; and a fourth in which the spirit was diluted to the degree required by the U. S. P., and the percolate mixed with four times its bulk of water, and filtered, allowed to deposit, again filtered, and then mixed with glycerin and evaporated to the proper bulk. Sixteen ounces of the drug were in each case represented, and the quantity of resin which separated from the various percolates were respectively 840, 160, 265, and 1,065 grains. In order to test the merits of each menstruum, the dregs of each operation were exhausted with alcohol, and the following amounts of extract recovered: No. 1, 120 grs.: entirely soluble in alcohol, insoluble in water; No. 2, 112 grs., soluble in alcohol, insoluble in water, gummy and resinous; No. 3, 138 grs., containing glycerin, semi-fluid; No. 4, 95 grs., soluble in alcohol, and insoluble in water. The first and second fluid extracts deposited copious precipitates, the third gelatinized, the fourth remains perfectly bright, though it has been kept three months. Of the syrups made from these No. 1 precipitated slightly and fermented; No. 2 precipitated; No. 3, not tried; No. 4, perfectly transparent and free from sediment. The preference is, of course, given to the last named process.

CULTIVATION OF THE SUNFLOWER.—From exhaustive trials and experiments, Wittstein (*Archiv der Pharm., in Am. Jour. Pharm.*) concludes that the cultivation of the sunflower, *Helianthus annuus*, can be carried on very profitably. It is already largely grown in Hungary and Russia. On each Bavarian acre 16,000 plants can be raised, and these furnish about 4,000 kilos of seed, 40,000 kilos of leaves, and the same weight of stems. The seed contains from 16.25 to 28.00 per cent. of fixed oil, which has a high commercial value, while the press cakes constitute a valuable fodder for cattle. The stems and leaves, if burnt, yield an ash rich in potash. It is calculated that the product of an acre would be 1,250 kilos of potash, 720 kilos of oil, and 3,280 kilos of press cakes.