

radicles, and it being known that these are at least quite as rich in resin, the operation might have led to different results had they not been detached.

The mother liquor remaining after the precipitation of the resin, together with the washings therefrom, was concentrated by evaporation, when a portion of resinous matter separated, which was found to be entirely soluble in alcohol, being precipitated by water; but by treatment with ether, was divided into two portions, soluble and insoluble, therein maintaining about the same degree of solubility as the precipitated resin. The exact amount of this substance was not ascertained, but must be at least ten per cent of that originally obtained by precipitation. The portion of alcoholic resin insoluble in ether thus separated by the concentration of the mother liquor, was taken in doses of five grains, producing only a slight cathartic action, attended by no unpleasant effects, while the ethereal resin taken in the same amount proved to be an active emeto-cathartic, very violent in its action, producing vomiting and purging, attended with severe griping, sense of dryness in the throat and dilation of the pupils, the effects lasting for about twenty-four hours; the latter effect I have never seen recorded, and may possibly only be produced by an excessive dose; but it was plainly marked in this instance, affording conclusive evidence that the substance thus separated is identical with the precipitated resin, at the same time establishing the fact that *the so-called resin of podophyllum is not a true resin*, which term, as applied by the older chemists in its widest sense, distinguishes those substances insoluble in water, generally soluble in alcohol, for the most part uncrystallizable, and melting when warmed; it might with some degree of propriety be called a resinoid, from its resemblance to a resin, but this in turn is so vague in its meaning, that the nomenclature adopted by our Pharmacopœia may be more conveniently used until its true composition is more definitely determined.

The concentrated mother liquor when filtered was of a yellowish red color, possessing a slight bitter taste and strong acid reaction; no precipitate was produced by iodohydrargyrate of potassium, tannic acid, mercuric chloride or tincture of iodine, indicating the absence of any organic alkali; the statement of berberina having been separated from this liquid must have been applied with reference to the former officinal resin, precipitated without the agency of hydrochloric acid, as in the present process it was found to have been entirely precipitated.

The liquid, however, when quite dilute, frothed strongly upon agitation; the color was rendered much brighter upon the addition of alkalies. Ferric chloride colored it olive green, baryta water produced a dense precipitate, but it was not precipitated by a solution of gelatin; when mixed with an anhydrous alcohol, a perfect solution was formed, which however did not froth; added to an alkaline solution of cupric oxide, it became of a bluish green color,