

standing a pale yellow, pretty well defined precipitate falls to the bottom. Corn spirit, if free from acetic and other ethers, shows a similar behavior, and after standing six to nine hours the precipitation is still more marked, and the superior liquid is perfectly clear and as bright as pure alcohol. With spirit obtained from potatoes, and therefore containing amylic alcohol treated in the same manner, the mixture does not become nearly so milky, but is bluish white, and upon standing nine to twelve hours a very slight precipitation takes place, only about one third as much as in the former, and the precipitation is pure white in color. The liquid portion of the mixture is also not entirely clear or water bright, but shows bluish white opalescence of several hours duration. A spirit containing traces of acetic ether, in which the odor of the fusil oil is masked, behaves similarly. (A. H. M.)

*Application of Prof. Lodge's Electric Spark.*—A wonderful instance of the manner in which a scientific discovery can be turned to practical advantage has recently occurred. At the Montreal meeting of the British Association, Prof. Lodge gave a lecture on "Dust", and pointed out a new observation due to himself and Mr. J. W. Clark. These two gentlemen had made the curious discovery that the passage of electric sparks through a dust-laden atmosphere would quickly cause the dust to settle down. During the lecture alluded to, a bell-glass filled with magnesium smoke was subjected to experiment, and the contained air rapidly became clear when the sparks were passed through it. So much for the scientific discovery. Now for its application. The head of a firm of lead smelters in Wales read a report of this lecture. He knew what difficulty there was in retaining the fume of volatilized lead from the smelting works, and in preventing its escaping from the flues to poison the atmosphere outside, besides robbing the smelter. He determined to see whether the electric spark would not cause the fume to fall in the same way that it acted upon the dust. An experimental shaft made of barrels, with windows in it, and an electric machine by which sparks could be sent through the fume, soon demonstrated that the thing could be done. (A. H. M.)

*Cirsine.*—A notice of a new Alkaloid, which has been named "Cirsine," discovered by E. B. Shuttleworth, of Toronto, in the flower heads of the Canada thistle, *Cirsium arvense*, was read at the semi-annual meeting of the Ontario College of Pharmacy, held at Belleville, last month. The method of analysis was that of Drugendorff, and the Alkaloid was not found to be soluble in petroleum ether, but most readily in alcohol. It was stated that thistle flowers are an important constituent in a well-known patent medicine, and it is quite possible that the active principle, when isolated, may be found to have powerful remedial properties. (A.H.M.)