

ing morphine, gr. 1-2, alone did not produce such a deep narcosis, nor could the animal be operated on as when morphine was combined with scopolamine; when morphine, gr. 1-4, and atropine, gr. 1-100, were injected the narcosis was not so deep as when morphine was injected alone. Atropine inhibits in some degree the action of the morphine. He also found that repeated daily injections of morphine and scopolamine produced no degeneration of heart, liver or kidneys. He found that the toxic dose of morphine and scopolamine corresponds very closely to that of morphine alone, and the autopsy findings in animals which succumb to a toxic dose are as those from morphine.

Though we use scopolamine throughout this paper, it is simply for the sake of uniformity, as hyoscyne and scopolamine are, as is well known, isomeric chemical, and identical in their physiological action, and as a matter of fact in the cases which we report below, it is the hyoscyne tablet of Parke, Davis & Co. which we have used almost altogether.

It might be in place here to refer briefly to the widely advertised tablet of the Abbott Alkaloidal Company of Hyoscyne, Morphine Cactin. They make extravagant claims as to the purity of their drug and the originality of their compound. They claim that hyoscyne made from *hyoscyamus* is the only safe drug to use, and that scopolamine is dangerous, and that the addition of cactin is highly beneficial as a heart tonic.

The absolute falsity and brazen effrontery of their claims was thoroughly shown in the journal of the American Medical Association December 21st, 1907. After quoting from manufacturers' letters and results of chemical and physiological investigation they say in conclusion—as to hyoscyne and scopolamine:

“1. Hyoscyne and scopolamine are synonymous terms for the same alkaloid.

“2. The claim of the Abbott Alkaloidal Company to the effect that the alkaloid it uses and which it calls hyoscyne is purer and safer than scopolamine has no basis in fact, for that alkaloid is scopolamine.

“3. No one connected with the Abbott Alkaloidal Company, or for that matter anyone else, is able to detect whether the alkaloid it sells is made from *hyoscyamus* or from some other plant of the same family. It may be chemically pure or impure, whether marked under the name hyoscyne hydrobromide or scopolamine hydrobromide.

“4. The Abbott Alkaloidal Company, therefore, has been misleading the profession of the United States regarding hyoscyne in its H.M.C. tablets, and has been doing this either deliberately