

chronic insanity, characterised by vivid terrifying auditory hallucinations, which caused constant screaming and excitement. All three had been previously treated with hyoscyamine, and with the result of greatly quieting them. Two have now been taking the atropine for three months, and one for two months, in doses I shall presently mention, with occasional intermissions to test the action of the remedy. Comparing its action with hyoscyamine, it seems to me that it is less powerful than that alkaloid. The patients are less completely subdued and helpless: there are occasional outbursts of violence and excitement, though by no means so great as when atropine is not taken. Its effects seem to pass off more quickly, so that it needs to be given two or three times in the twenty-four hours. On the other hand, the patients are decidedly in a more natural and healthy condition; there is less stupor, oppression, and heaviness than under hyoscyamine. The pupils need generally not be dilated, but there is often much dryness of throat before the dose is reached, which quiets the patient. I ordered a solution of atropine in glycerine, of the strength of the liquor atropiæ P.B., on account of the risks from evaporation of the officinal preparation. I began with \mathfrak{m} ij of this in each case, and have now pushed it in two cases to \mathfrak{m} x, and in the third to \mathfrak{m} vj twice a day. One case I treated for a while with belladonna, giving \mathfrak{z} j of the tincture; but the atropine seems more uniform and convenient, especially as it can be administered without the patient's knowledge if necessary. I may remark that hyoscyamine is about fifteen times the price of atropine, which would be a matter of some importance in a large practice, if the action of the two drugs is not very different. I regret that I have had no acute case in which the alkaloid might be suitably tried since its use occurred to me. It might be worth trying whether the persistent use of atropine in full doses might not be useful as a curative agent in chronic mania, as it has sometimes been found to cure that cognate neurosis, exophthalmic goitre.

Note on the Chemical Constituents of Hyoscyamus. By Dr. G. M. BACON, Cambs. Co. Asylum.

Although *Hyoscyamine* in some shape or other has been used now for some time, but little is known of its chemical constitution, and one is, therefore, glad to notice that at the PHARMACEUTICAL CONFERENCE, held in London, in August,

1881, a communication was read from E. Merck, of Darmstadt, the now famous producer of this drug, on the "Present State of our Knowledge of the Proximate Constituents of Henbane."

Professor Ladenburg, in continuing his researches on the mydriatic alkaloids of the Solanaceæ, has definitely confirmed the existence of a second alkaloid in *Hyoscyamus Niger*. The presence of this alkaloid was, indeed, suspected from the difference in the physiological action between the crystallised and the amorphous (coloured) hyoscyamine. Dr. Ladenburg calls the new alkaloid "hyoscine," but says this name is superfluous, as there is no doubt that it is identical with "tropine." It is stated ("Pharmaceutical Journal," Sept. 24, 1881) that *Hyoscyamine* is found in—

- (a) *Hyoscyamus niger*, L. It is from this source that the hyoscyamine of Merck is prepared.
- (b) In *Atropa Belladonna*, L. So-called "light atropine."
- (c) In *Datura Stramonium*, L. Commonly known as "light daturin."
- (d) In *Duboisia myoporoides*, R. Brown. So-called Duboisin.

Hyoscine is as yet only found in *Hyoscyamus Niger*. It dilates the pupil like atropine, to which alkaloid it bears considerable resemblance in physiological action.

In further discussion, it was announced that "Hyoscine" had a "soothing and soporific influence," and that "hyoscine hydriodate" was the salt most commonly employed. Another point discussed was whether Mr. Merck obtained his hyoscyamine from the first or second year's plants, and it was stated that the *first* year's plants were the material used in Germany. The B.P. orders the use of only the biennial variety, but Mr. Cleaver "believed it was a matter of manufacturing knowledge that the annual variety yielded as much, if not more." So much for the traditions of the past!

At the meeting of the Cambridge Philosophical Society, on Feb. 20, 1882, a specimen of *Duboisia*, cultivated in the Botanic Garden, was exhibited, raised by seeds imported by Baron von Mueller. This plant, it was stated, forms a small tree about 20ft. high, and is a native of Australia. It is found near Sydney, and at Cape York; it is also a native of New Guinea and New Caledonia. It has small, pale, lilac or white flowers, and belongs to the Solanaceæ."