fact that here and there isolated prolongations of cells extend from the epidermis into the mucilaginous layer.

The author does not know whether other leaves present similar conditions; In *Althœa* leaves, after quite a cursory examination, this appeared to him to be no more the case than in those of *Sesamum indicum*, which are tolerably mucilaginous. *Empleurum serrulatum*, on the other hand, resembles *Barosma*.

CROTON CHLORAL.*

BY ALFRED H. MASON, F.C.S.

A new remedy, with chloral as its basis, and introduced by the discoverer of the therapeutical application of hydrate of chloral, naturally commands attention. At one of our general meetings in 1872 session I exhibited a specimen of this, then new, compound, named by Professor Liebreich croton chloral hydrate.

Within the last few months this medicine has commanded much more of the attention of medical men, so that the requirements of it somewhat exceed the first demand for its predecessor when sold at about the same price.

Crotonic chloral was discovered somewhat accidentally by Dr. G. Kraemer and Dr. A. Pinner.† These gentlemen were undertaking experiments on the action of chlorine on aldehyde, chiefly in the hope of thus obtaining chloral, and of being able to utilise the valueless residue from the first runnings obtained in the distillation of crude spirit, which consists mainly of alcohol, aldehyde, and paraldehyde.

Chlorine was passed into aldehyde, at first carefully cooled in a freezing mixture, and only heated to 100° at the close of the reaction. The first few bubbles caused the separation of a small quantity of solid met-aldehyde, whether originally present in the aldehyde, or formed by the reaction, is undecided. After a short time evolution of hydrochloric acid set in, and every trace of chlorine was absorbed. With 100 grains of aldehyde, at the end of 24 hours, no further absorption took place even at 100°. The resulting brown mass consists of two layers: a lower, darker, almost solid; and an upper, lighter coloured, liquid layer. The latter is a saturated solution of hydrochloric acid and the bodies of the lower layer in water. As it was found impossible to separate these two well, the whole was submitted to distillation. A considerable quantity passed over

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