

CANADA

# MEDICAL JOURNAL.

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## ORIGINAL COMMUNICATIONS.

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*Calabar Bean.* Substance of Lectures delivered January, 1869, in the University of McGill College. By WILLIAM WRIGHT, M.D., L.R.C.S., ED., Professor Materia Medica.

Calabar bean, which has within a few years back obtained celebrity for its remarkable action as an ophthalmic agent and as a remedy in tetanus, owes its activity to a peculiar alkaloid called *Eseria*, or *Physostigmine*.

*Eseria*, or *physostigmine* is contained in the kernel or white interior, and probably is confined merely to the cotyledons.

It was separated in 1863 by Jobst and Hesse. A lengthy description is given of the mode of extracting it, but the chief steps in the process are to make an alcoholic tincture of the beans,—to evaporate this down so as to leave a thick residue,—to digest this remainder in sulphuric ether,—and lastly to drive off the ether from the solution thus got. The substance that remains behind is the alkaloid.

It appears at first as oily drops, but subsequently becomes more consistent. It has not yet been crystallized. It is commonly seen as a brownish yellow mass, having the usual characters of alkaloidal agents. As regards solubility, it dissolves readily in acids, in solution of soda or ammonia, in ether and alcohol, but it is only sparingly soluble in cold water. By contact with acids it is neutralized and salts are formed. These have either a red or blue colour of dark tint. Like the volatizable alkaloids, when heated with potass, it is more or less dispelled in vapour, which acts on colouring matter in the same way as ammonia.

Its tests are yet to be discovered. From its solution, however, tinct. iodine and sol. iod. potassium throw down a copious orange precipitate. The proportion in which it is present is probably very scant, as twenty-one beans are said to yield only a little alkaloid.