

## POISON!

**Botanical:** *Physostigma venenosum* (EALF.) Family: N.O. Leguminosae

**Description---**The plant came into notice in 1846 and was planted in the Edinburgh Botanical Gardens, where it grew into a strong perennial creeper. It is a great twining climber, pinnately trifoliate leaves, pendulous racemes of purplish bean-like flowers; seeds are two or three together in dark brown pods about 6 inches long and kidney-shaped thick, about 1 inch long, rounded ends, roughish but a little polished, and have a long scar on the edge where adherent to the placenta. The seeds ripen at all seasons, but are best and most abundant during the rainy season in Africa, June till September. The natives of Africa employ the bean as an ordeal owing to its very poisonous qualities. They call it *esere*, and it is given to an accused person to eat. If the prisoner vomits within half an hour he is accounted innocent, but if he succumbs he is found guilty. A draught of the pounded seeds infused in water is said to have been fatal to a man within an hour.

**---Constituents---**The chief constituent is the alkaloid physostigmine (eserine), with which are calabarines, eseridine, and eseramine. Eseridine is not employed medicinally.

**---Medicinal Action and Uses---**Chiefly used for diseases of the eye; it causes rapid contraction of the pupil and disturbed vision. Also used as a stimulant to the unstriated muscles of the intestines in chronic constipation. Its action on the circulation is to slow the pulse and raise blood-pressure; it depresses the central nervous system, causing muscular weakness; it has been employed internally for its depressant action in epilepsy, cholera, etc., and given hypodermically in acute tetanus. Physostigmine Salicylas is preferred for the preparation of eyedrops.

**---Preparation of Doses---**Extract of Calabar Bean, B.P.: dose, 1/4 to 1 grain. Extract of Physostigma, U.S.P.: dose, 1/8 grain. Tincture of Calabar Bean, B.P.C.: dose, 5 to 15 minims. Tincture of Physostigma, U.S.P.: dose, 15 minims. Physostigmine Eyedrops, B.P.C. Physostigmine eye ointment, B.P.C. Fluid extract, 1 to 3 drops.

**---Poisons and Antidotes---**In case of poisoning by the beans the stomach should be evacuated and atropine injected until the pulse quickens. With poisoning by physostigmine the stomach should be washed out with 0.2 per cent of potassium permanganate and atropine and strychnine administered hypodermically.

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