

Lastly, the microscope detects a loose areolar texture, with hexagonal loculi, each holding from one to six starch granules of large size.

The average weights of spermoderm and kernel in a single bean are 15 and 35 grains respectively.

Calabar bean readily yields its virtues to rectified spirit, and this is the menstruum chiefly used in making its preparations. In the second edition of the British Pharmacopœia are directions for making an extract, the *Extractum Physostigmatis*. This is the only officinal preparation. It is a strong tincture, reduced by distillation and evaporation to the consistence of thick treacle. One pound of the bean in coarse powder is exhausted by four pints of rectified spirit by digestion, percolation, and expression. The resulting liquid is then thickened. The bean should be steeped for a couple of days with one-fourth of the alcohol, the mixture ought then to be transferred to the percolator, and when the dropping stops, the remaining three-fourths of the spirit is to be gradually put into the percolator. The pulp is to be well squeezed into the filtered liquid. Inspissation is easily effected by a water bath. Here is a sample of some expressly made for me. It has a dark brown colour. The dose is gr. $\frac{1}{8}$ to gr. $\frac{1}{4}$. This extract is preferred to other preparations, because it is the most reliable and the least likely to vary. Next to the active principle, it is the strongest form in which the bean can be given. It may be given as a pill in union with different excipients, as bread crumb, soap, vegetable extracts, or pill masses. It may also be given as a mixture, with water, as the two rubbed up together make a mixture of a white appearance that becomes pink upon exposure to air and light.

There is another extract, sometimes referred to, the *Aqueous*. It is got by evaporating to a proper thickness a strong decoction.

An *acetic* extract may also be procured by using distilled vinegar or dilute acetic acid as the exhauster.

The best preparation after the alcoholic extract is a *tincture*.

Different tinctures are mentioned. Dr. T. R. Fraser's is the most powerful. $\bar{\zeta}$ ij. of product only are obtained from $\bar{\zeta}$ i. of kernel. The latter is pulverized minutely, then soaked for two days in half the amount of rectified spirit to be used, next the mixture is put into a percolator, and the other half of the spirit is added when passed; through, if there be not enough tincture to make up the measure to twice the proportion of the kernel used, more spirit is to be added to make up the deficiency that may exist. Every $\bar{\zeta}$ i. of kernel is acted on by $\bar{\zeta}$ ij. spirit, or as much as will yield $\bar{\zeta}$ ii of tincture. Here are several ounces of it which I had made according to Dr. F.'s directions. You notice it has a beautiful, clear, transparent look, of a pale sherry tint. It differs from