

Insect Powder.

Translated from the *Journal de Pharmacie et de Chimie, for the National Druggist.*

The Pyrethrum (*Anthemis pyrethrum*) is a little plant of the family of the Synantheria, which is found in the south of France, principally in the neighborhood of Montpellier, growing wild. Its root is sometimes used in medicine as an excitant and scialagogue. It has of late years acquired a commercial value, since its flowers are used as the principal ingredient of insecticide powders. The species mostly used for this purpose is indigenous to the Caucasus, whence its name, Caucasian pyrethrum, but the principal seat of pyrethrum culture is the principality of Montenegro, where it is an object of considerable exploitation.

The culture of pyrethrum demands great care. The earth must first be especially prepared for it, and the young plants are transplanted into it by hand. It blooms in appreciable quantities only in the second and especially in the third year. The flowers when gathered and prepared are sent to Trieste, whence it goes direct, to all the centres of commerce.

Two sorts of the flowers are found in commerce, the yellow and the violet. The first have a white corolla, but are completely yellow after desiccation. The violet flowers have a bluish corolla, and preserve their color even in the dry state. The powder obtained from the yellow flowers is of a beautiful, clear yellow and possesses a very energetic action upon all species of insect life. The violet flowers yield a grayish powder which is much less energetic in action.

It is scarcely necessary here to refer to the insecticidal properties of pyrethrum, and its advantages over all other insecticides. Everybody today regards its properties in this direction as incontestable, and recognizes its innocuity to those engaged in its preparation, as well as its harmlessness toward furniture, clothing, pictures, etc., to which it is applied. It makes no stain whatever, and is easily removed whenever desired.

Formerly the toxicity of pyrethrum flowers toward insects was attributed to the obturation of their stigmata (the mechanical closing of the orifices which serve as breathing organs), but this idea was eventually abandoned, for the reason, mainly, that other vegetable powders whose tenuity would easily have effected that end, failed to produce the lethal effects of pyrethrum. Beside this, however, the existence in the flowers of a proximate principle, soluble in alcohol, has been demonstrated, and this now appears to be the true toxic ingredient of the powder, and whose extraction renders the residual powder innocuous to insects.

The high price of the flowers, especially when they first came into use (under the name of Persian, or Dalmatian insect powder) naturally tempted the sophisticators and adulterators, who speedily mixed the genuine powder with all sorts

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