

violent vomiting, soon followed by a drowsiness that persists for several hours.

A young cat supported 8 grains without fatal results; after violent retchings it fell into a deep sleep, which lasted nearly 36 hours. Solania, extracted from the *solanum ferox*, was sent to me by M. Pelletier, with which I made experiments on two puppy dogs: it produced profuse salivation in one of the animals, but no drowsiness.

#### *Action of Solania on Man.*

On swallowing a small quantity of solania, a strong feeling of irritation in the throat is experienced. In the mouth it imparts a nauseating, slightly bitter taste, which becomes exceedingly so if the substance be dissolved in a small quantity of acetic acid.

The acetate is the only salt of solania that has hitherto been tried on man. In the dose of a quarter of a grain it produces nausea, but no tendency to sleep ensues.

From what has been said, it would appear that solania, like opium, is capable of producing vomiting and sleep; but its emetic powers seem to be more prominent than those of opium, whilst its narcotic properties are much feebler.

#### *Cases for its administration.*

Solania has not yet been tried in disease, but it may be employed in all cases where the extract of the morel or the bitter-sweet is indicated.

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#### DELPHINIA.

This alkali was discovered in 1819, in the seeds of the stavesacre, (*delphinium staphisagria*), by MM. Fe-

neuelle and Lassaigne, who named it so from an idea that the acrid property of this vegetable family was owing to this principle: an opinion which they have not succeeded in confirming by analyses of other delphinian plants.

*Preparation of Delphinia.*

Boil in a little distilled water a quantity of the seeds deprived of their covering, and reduced to a fine paste. Strain the decoction through linen, and then filter it. Add pure magnesia, and keep it boiling for several minutes, at the end of which, filter again; wash the residue, and submit it to the action of rectified alcohol. By evaporating the spirituous tincture, delphinia, as a white powder exhibiting a few crystalline points, is obtained.

This is the most simple process: but if it be desired to procure it in large quantities, and without the trouble of cleaning the seeds, the following process is preferable.

The seeds not cleaned, but well bruised, are treated with dilute sulphuric acid. A precipitation is effected by ammonia, and the delphinia, still containing some colouring matter, is taken up by alcohol. To purify it, drive off the alcohol by distillation, dissolve the residue in hydrochloric acid, and boil with magnesia. The deposit is taken up by spirits of wine, which yields delphinia in a perfectly pure condition.

M. Couerbe proposes to obtain pure delphinia by the same process that he employs in getting veratria from the seeds of the plant.—See *Veratria*, page 68.

*Properties of Delphinia.*

When in a state of purity it is a white powder, crystalline when moist, but soon becoming opaque by exposure to the air. It has no smell, and its taste is first intensely bitter, and then acrid.

Water dissolves a very small proportion of it, only

recognisable by the slight bitterness of the fluid. Alcohol and ether dissolve it readily: the spirituous solution imparts a strong green colour to the syrup of violets, and restores the blue colour of turnsol paper reddened by acids.

With sulphuric, nitric, hydrochloric, oxalic, and acetic acids, delphinia forms exceedingly soluble neutral salts, having an extremely bitter and acrid taste. Alkalis precipitate it in the form of a white jelly.

According to M. Couerbe's analysis, delphinia consists of

	At. Comp.
Carbon.....	76.69 = 27
Azote .....	5.93 = 2
Hydrogen .....	8.89 = 38
Oxygen .....	7.49 = 2

The number representing the atomic weight of this substance is 2597.

#### *Cases for its Employment.*

Delphinia has not yet been tried as a medicine; but if stavesacre possesses any medicinal agency, it may be presumed to exist in the alkali obtained from it. Its administration might therefore be attempted in circumstances where the plant itself is indicated; in which case the salts, being more soluble, are to be preferred.

[Stavesacre has generally been used in ointment to destroy vermin in the hair; or the seeds are macerated in vinegar, and the liquor used for the same purpose. Delphinia would probably answer the same end more effectually.

Dr. Turnbull has employed delphinia both internally and externally. Its medicinal operation is precisely the same as that of veratria, and it is therefore applicable in the same cases.—*Tr.*]