

Poisons.**THEIR SOURCE, USE, AND ANTIDOTES.**

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TABLE I. (continued)—ORGANIC ACIDS AND SALTS.

Tartarated Antimony.

Known also as tartar emetic, potassio-tartrate of antimony, antimony potassium tartrate, or by the very old name of stibiater tartrate, the Latin name for antimony being stibium. Its formula is $K(SbO)C_4H_4O_6$.

The Pharmacopœia directs it to be prepared by mixing antimonious oxide and acid potassium tartrate with water into a paste, setting aside until combination takes place, then purifying by crystallisation from water. It is usual to leave the paste for twenty-four hours before further treatment. It is a colourless crystalline substance, soluble in water, not very soluble in alcohol.

What we read of as the "ancient pocula emetic, or everlasting emetic cup," was made of an antimony alloy (that is to say, metal antimony combined with another metal). But this, like the "bitter cup," is now a thing of the past.

The dose of tartar emetic is, as a diaphoretic, $\frac{1}{4}$ to $\frac{1}{3}$ of a grain; as an emetic, 1 to 2 grains. There is a wine official made by dissolving tartar emetic in water, then adding sherry; it contains 40 grains to the pint. Its dose is 2 to 4 fluid drachms. Poisoning by antimony tartrate is of frequent occurrence, and, in cases where the cause of death has to be proved by analysis, tests similar to those applied for arsenic would be used. One remarkable fact in antimony poisoning, especially if the patient has taken a long course of it before proving fatal, is that after death the body remains in a wonderful state of preservation for some years. This fact, although previously known to scientific men, has recently received special attention, it lately having been discovered that this drug preserves the tissues of the body for a much longer time than has been supposed, or previously proved.

Tartar emetic is prescribed for internal and external use, although there is now no official ointment.

It is one of the drugs which cause perspiration, increasing the excretion from the skin. When used for this purpose, *i.e.*, as a diaphoretic, a very small dose would be given.

It is prescribed in fevers, inflammation, bronchitis, and croup. It is used as an emetic in some cases, but not very often in the present day. A few years ago it was much more frequently ordered than it is now.

When employed for external use as an ointment, it is applied as an irritant, giving rise to pustules. Cases of death from poisoning due to the use of

the ointment have been recorded. Before the days of anæsthetics, tartar emetic was often used to relax the muscular system, as in the case of the reduction of a fracture.

In a case of poisoning from tartarated antimony the stomach pump should be used. Emetics given: tannic acid in water (tannin forms an insoluble tannate with tartar emetic), any vegetable infusion containing tannic or gallic acid, strong tea, morphine sulphate $\frac{1}{2}$ gr.; stimulants may be given, and the patient kept very warm. If the dose of tartar emetic has been very large, sometimes the result is not fatal, the action is so very violent.

Cantharides.

Cantharides, commonly called Spanish fly, is the dried beetle *Cantharis vesicatoria*. It is about $\frac{3}{4}$ in. long, with two wing-cases of a coppery-green colour, under which are two brown transparent membranous wings; each insect has three pairs of legs and one pair of antennæ. The soft parts of the beetle are the chief seat of the vesicating properties. Although many beetles possess these properties, yet the cantharides is the only one official. It is chiefly collected in Hungary, found also in the south of France, in Switzerland, and Germany. It is generally found on the ash-trees. To collect the beetles, cloths are spread under the tree, which is then beaten with poles or well shaken, the insects falling off into the cloths. They are then exposed to the vapour of boiling vinegar to kill them, or use is made of hot water, rectified spirits, or oil of turpentine. Sometimes the cloth containing them is placed in hot vinegar and water, then quickly dried. To preserve them they are kept in stoppered bottles, and a little camphor and alcohol, or a few drops of strong acetic acid is added. Cantharides contains from .4 per cent. to 1 per cent. of cantharidin, also about 12 per cent. of a fixed oil, and a little volatile oil and odorous matter.

Cantharidin, the active principle, is a glucoside. It is soluble in chloroform and in acetic acid, very slightly soluble in alcohol, insoluble in water.

It may be extracted from the Spanish fly by exhausting the fly with acetic ether. On evaporating the ether the cantharidin separates in crystals. Very few cases of poisoning from cantharides occur, and a death seldom takes place.

There are several preparations of the beetle. The chief is the plaster, commonly called "blister." Then there is the blistering liquid, nowadays used in most cases in place of the blister. There is an ointment, also another plaster, which contains cantharides, and a tincture. Cantharides is rarely prescribed for internal use, but, when necessary to order it, from $m 5$ to $m 15$ can be given of the tincture. For external application it is largely used.

It is applied as a vesicant and irritant. The drug is chiefly used for its blistering properties.

For internal use it is prescribed as a diuretic (*i.e.*,

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