

POISONS AND THEIR ANTIDOTES.

Reliable statistics, running for many years, and extending over large areas, show that accidents from poisons are of much more frequent occurrence now than formerly. This fact is no doubt due to the much more general use of poisons at present than in years past, both in ordinary household matters and in the arts.

While in all cases of poisoning the chief reliance must be placed upon medical aid, yet it often occurs that the need for a remedy is urgent, so that others should know the most ready and available methods of relief. There are some general instructions which, in the absence of direct antidotes, will apply to most poisons, and the *New York Independent* has done a good work in preparing and publishing the following quite full directions of how to act in cases of emergency, or while waiting for a physician:

Many poisons do their harm by their immediate action upon the esophagus and the coats of the stomach. Hence, if any liquid or soft solid substance is soon swallowed, it tends to diminish the effect. To this end liquids, such as water or milk, may be freely given. Oils also have a protective agency, and these diminish the virulence, especially of the acrid poisons.

It is also a safe indication to remove from the stomach by means of emetics the substance which has been swallowed. A teaspoonful of mustard in a tea-cup of warm water is generally nearest at hand, and may be given to an adult, or half the quantity to a child, every ten minutes until vomiting is excited. A half teaspoonful of powdered ipecac, given in the same way, will act as well. Tickling the throat with a finger or a feather five minutes after the emetic has been given, is likely to hasten its effect. They may well be aided in their action, as well as the stomach protected, by the use of flaxseed, or slippery-elm tea, or eggs, or jelly, or a teaspoonful of melted butter, or lard, or molasses. Whenever the poison is one producing stupor, cold to the head, warmth to the extremities, rubbing the skin with a flesh-brush, and attempts to rouse the person by alternate warm and cold sprinklings may be tried.

Better than all, the chemical antidote should be given, if known. Where an acid has been swallowed, soda, saleratus, lime, magnesia, or prepared chalk should be mixed with water and given in frequent doses. Of these the best is the calcined magnesia, given freely. If an alkali has been swallowed, as a lump of potash or lime, then acids, as vinegar, cider, lemon-juice, and the like, are indicated; but the use of oily and mucilaginous drinks must not be omitted. In poisoning with copper and its compounds, vinegar must be carefully avoided. The recent cases of pie-poisoning in New York city were probably owing to the action of some acid upon a copper kettle, or on copper in some other form.

Oxalic acid, used for cleaning metals, is sometimes taken by mistake for Epsom salts. Chalk, whiting, or other alkali should be freely used before any attempt to excite vomiting.

Prussic acid, although called an acid, is feebly so, and kills by its direct poisonous power over the nerves of organic life. The concentrated juice of peach leaves and kernels, of laurel, etc., may affect in the same way. Harts-horn, alternate cold and warm effusive stimulants to the surface and internally are more important than any other means. Artificial respiration, the same as directed for drowned persons, may be required. Smith's antidote of a half teaspoonful of pearlash, followed by 10 grains of copperas in water, is of service where you are sure as to the acid having been taken.

Sugar of lead and other salts of lead are best neutralized by white of eggs, Epsom salts, and lemonade.

When blue vitriol, or verdigris, has been taken, white of eggs, paste of wheat flour and flaxseed tea, sweetened with sugar, are indicated.

When green or white vitriol, or litharge, or

yellow ochre have been swallowed, chalk and flaxseed tea are of service. If lunar caustic has been swallowed, a cupful of salt and water is the antidote.

Phosphorus, as used for poison of vermin and for matches, is sometimes eaten by children. Magnesia or other alkali, with water or mucilaginous drinks, are the readiest means of relief.

Croosote or an overdose of carbolic acid is to be met by white of eggs, milk and wheat-flour paste.

For poisons of the narcotic kind, such as opium, aconite, belladonna, henbane, digitalis and tobacco, there is not at hand any antidote. Stimulating emetics, stimulants to the surface, and, if need be, artificial respiration are indicated. Heavy draughts of strong coffee help to postpone the narcotism of opium. Lemonade or other mild acids are deemed of some service.

Overdoses of camphor or chloroform are an indication for alcoholic stimulants. We are still without certain antidotes for several of the narcotics.

Arsenic, either in its metallic form as gray fly-powder or the white arsenious acid, has an antidote in the hydrated peroxide of iron. Until this can be secured, warm water, milk, plenty of eggs, and lime water must be our reliance. The most frequent mistake of vegetable foods are the substitution of other varieties for the edible mushroom and the use of poke root (*Phytolacca decandra*) for horse-radish. No antidotes are known. But the indication is to use mustard or other stimulating emetics, and prevent further trouble by a few drops of laudanum, frequently repeated, until pain or sickness abates.

These are merely directions for those sudden cases of emergency which may occur in any family, and which, in the country, at least, occur when the physician is not within ready reach. With the use of disinfectants, insect remedies, Paris green (arsenic), and with the increasing familiarity of the people with various chemicals, public health requires great care as to labeling all such articles. The medicines left over from physicians' prescriptions should either be marked or thrown away. Teach those under your control not to eat any vegetable or leaf without knowing what it is. All flowers with the cups turned downward or hooded, and all stalks which exude a milk-white juice when broken, are to be regarded as poisonous. All paints, whether of oil or water colors, should not be held in the mouth. It behooves all householders to have a special place for keeping all extra hazardous or doubtful compounds, and to cast away all unmarked or unneeded bottles and packages.

FALSE BUTTER IN NEW YORK.—In New York State they have a law against marketing "oleomargarine," or the false butter made from beef suet without plainly branding it so that purchasers may not be led to believe it the genuine product of the cow. Some New York merchants persist in getting around the law by using indistinct brands, etc. The evil has gone so far that a society of dealers in the true article has been formed, called "The National Association for the Prevention of Adulteration of Butter." The society lately held a meeting at the American Exchange in New York and elected W. Winsor, President, and T. Mortimer Seaver, Secretary. A committee of five was appointed to take steps to vigorously prosecute all parties violating the law; against palming off oleomargarine and other compounds as butter; and at a subsequent meeting of the committee Mr. Seaver was appointed attorney and counsel for the association, with instructions to proceed at once in New York, Brooklyn and New Jersey. The committee on subscription reported every prospect of raising the \$5,000 in a few days necessary for prosecution.

THACKERAY did not read the works of female novelists, because they "were not strong beer enough. Besides," he said. "I read very few novels; I am a pastry cook. I bake tarts and sell them. I don't eat them myself. I eat bread and butter."

THE PRACTICAL USE OF SCIENCE.

The adulteration of various articles of food have of late become so alarming, and the various processes are so skillfully conducted that the aid of science is being called in to assist in the detection of such practices, in order that the offenders may be more readily brought to justice. The French authorities are just now wrestling vigorously with those engaged in palming off upon the public a spurious article of olive oil, the adulterations of which have become so universal that it is difficult to get a pure article anywhere in the European market. According to the *Correspondence Scientifique*, the government recently referred the matter to a special committee of the Academy of Sciences, which has recommended the use of a new instrument which is called the diatometer. This instrument, which has been devised by Prof. Luigi Palmieri, has its action based on the differences in the electric conductivity of oils. Pure olive oil has very feeble conductive properties, which (as is also the case with other oils) increase with the amount of impurities added. The only oils that are known to compare to olive oil in respect to their low conductivity are the oils of pine-seed and hazel nuts; and these, fortunately, are too expensive to be used in the adulteration of the former. The conclusions of the committee on the practical value of the diatometer have not yet been announced; it is noted, however, that its use demands considerable manipulative skill. For the correctness of this abstract we refer to the *London Chemical News*.

Butter is another article to preserve the purity of which the aid of the scientist has been invoked. In reply to such a demand Herr Fisher asserts that the examination of butter by polarized light with a magnifying power of about 200 to 300 diameters, affords a much more certain criterion of its purity than a specific gravity test. Examined in this way, fictitious butter shows not only the globular drops and salt crystals characteristic of genuine butter, but likewise other more or less developed crystals. The author also finds this method may be applied to the determination of different kinds of fats, inasmuch as each of these shows characteristic colors in polarized light. Mutton tallow, for instance, always gives a blue tone; cocoa butter gives colors passing from the brightest green to the deepest red; the fat of oxen gives green and white luminous effects; while small bright green semi-lunar and vermicular bodies appear in common light. Hog's lard shows many colors, especially red and blue—yellow, which is characteristic of cocoa butter, being absent.

WOMAN'S INFLUENCE.—In the *North American Review* for January, Francis Parkman reviews the arguments adduced in favor of woman suffrage by five advocates of that measure in the November number of the *Review*. When the great mass of womankind demand the right of suffrage, it will accorded, says Mr. Parkman; but with all the agitation of this question during several decades, the female sex is still content to be represented in political affairs by their male relatives. Nevertheless, women may exert a very great power in the commonwealth. If they are sound in body and mind, impart this soundness to a numerous offspring and rear them to a sense of responsibility and duty, there are no national evils that we cannot overcome.

AN INTERRUPTED SERENADE.—Algernon, under her window in the cold, white moonlight, with a tender expression, sang:

"Tis the la-bast rose of summer,
Le-hest bloo-booming alo-hone;
All its lo-huv-lee companions,
All ha fa-deh-bed and go-home."

Voice of pa from next window, strained and cracked like, as though the old gentleman didn't have time to look for his store teeth: "All right, young man, all right; just pin a newspaper over it to save it from the frost, and we'll take it in with the rest of the plants in the morning."