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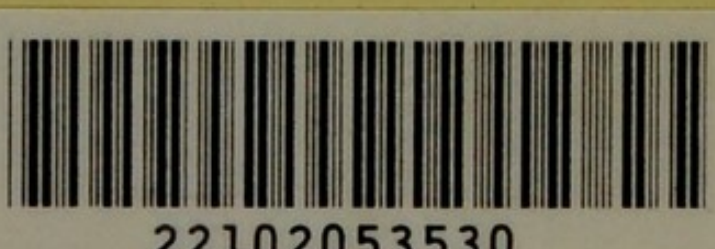
# POISONS—REMEDIES



# POISONS–REMEDIES

## A MANUAL FOR REFERENCE

ISSUED BY

The Mutual Life Insurance Company
of New York

RICHARD A. McCURDY, President

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# POISONS

The effect of the accidental administration of poison may be greatly mitigated by a policy in THE MUTUAL LIFE INSURANCE COMPANY OF NEW YORK.

No 4 in the series of Medical Handbooks now being revised and issued by The Mutual Life Insurance Company of New York.

## POISONS.

Under this term people are inclined to place only those things which, if taken internally, produce death. Physicians, however, consider it merely a relative term, and call anything a poison that does more harm than good to the body. A little of a good thing may be useful, but beyond the point of usefulness may be injurious. An exaggerated injury from the same cause may well be termed a poison. There is not a single poison in the entire list which, in proper quantities, and under favorable circumstances, may not be used with advantage to the human body; and, on the other hand, there is scarcely a single thing in ordinary use which, if indulged in beyond the requirements of the body or its ability to properly dispose of it, may not be followed by symptoms of derangement of the economy, and in the above qualified sense is not miscalled if termed a poison.

Definition of a poison

In the majority of cases the poison is introduced into the body through the stomach, and as soon as swallowed may commence destructive action upon the mouth, throat, or stomach, as in the cases of acids, alkalies, arsenic, phosphorus, etc. While some substances act in this way, others pass from the stomach through the mucous membrane, without injuring it, into the blood, and are carried by it to the brain and other portions of the nervous system, where the really injurious action begins, overpowering them so that breathing and the action of the heart are not kept up. To this class of poisons belong alcohol, aconite, belladonna, strychnia, etc.

Mode of action.

A knowledge of the mode of action of a substance will, therefore, of itself suggest an antidote or remedy. If an alkali has been taken, an acid will neutralize it,

converting it into a compound less hurtful. The new compound is perhaps injurious, but not so active, and can be removed from the stomach somewhat at leisure. On the other hand, if an acid has been taken, an alkali would naturally suggest itself as an antidote.

**Treatment in general.**

Some poisonous substances cannot be neutralized by any convenient article, and must be removed from their lodging-place as soon as possible, and their effects counteracted.

If the agent does not act upon the stomach directly, but upon the brain and nervous system, reaching them through the blood, the treatment will be similar to that when certain gases have been inhaled. Artificial respiration would, of course, be resorted to. This should continue until enough of the poison in the blood has been eliminated by the natural processes constantly going on in the body to permit the brain and nervous system to resume one of their old duties, that of attending to respiration and the circulation of the blood.

As few persons have the necessary knowledge of the different poisons, each of these poisons will be spoken of somewhat in detail, and alphabetically arranged, so that in case of need immediate reference can be made to the particular substance supposed to have been taken.

It should never be forgotten that the substance swallowed as a poison must be considered in its action as divided into two parts: that portion which has already acted upon the mucous membrane (lining) of the throat and stomach, or which has already passed from the stomach into the blood, and that portion that is in the stomach and yet to be disposed of.

It is the latter portion, perhaps, in most instances, we are called upon to deal with first, and evacuation of the stomach must be effected with the least possible loss of

time. This is done with the stomach-pump and by emetics. No directions for poisons are complete without reference to the stomach-pump. With people who know nothing about the matter it is very popular. The writer knows of but one physician among all his acquaintances who professes to keep one, and unless this particular instrument differs from all other complicated instruments rarely used, he does not believe the owner of it could get it to work in an emergency if he wished. Not a single apothecary, as far as the writer knows, keeps one, and a non-professional person could not use a stomach-pump with success if he had a dozen of them at his command. A siphon stomach-tube is of much value for emptying the stomach, but it can only be used successfully by a physician.

**Stomach-pump.**

### EMETICS.

For the purpose of rapidly emptying the stomach in the majority of cases, before the arrival of a physician, and after it as well, nothing equals an emetic. The most easily obtained is usually the best. There are few places where these things cannot be had: Ground mustard, common salt and warm water.

**Emetics.**

Take a tablespoonful of ground mustard and mix with a tumbler of water to about the consistence of milk. Give the person one-fourth of it at once. Then follow with a cup of warm water. In about a minute give the person the same quantity again, followed by the warm water. If vomiting does not take place, continue giving until it does, letting a minute or so elapse after each dose. Plentiful draughts of tepid water materially assist the action of an emetic, and the free use of it should, therefore, not be omitted. Mustard is not only useful as an emetic, easily obtained, and as readily given as anything else, but it is stimulating in character. This feature gives

**Mustard.**

it a peculiar value in most cases where an emetic is demanded, for a stimulant is often needed at the same time. The amount of stimulation derived from mustard is not always enough, but it is of some assistance in this direction.

**Common salt.**

Common salt is even easier to obtain than ground mustard, and is as certain in its action. A teacupful of water, with as much salt dissolved as the water will hold, is given every minute or so until vomiting occurs.

**Warm water.**

Warm water, given cup after cup, is a safe emetic, but as the articles before mentioned are so easily obtained, water is rarely used alone. Usually it is given to assist the action of the other substances, on the principle, perhaps, that a distended stomach is more easily emptied than one with little in it. After vomiting has occurred, frequent draughts of warm water are often given to cleanse out the stomach. In many instances warm milk, gum-arabic water, flour and water, the white of an egg in a teacup of tepid water, and such substances, are given instead, with the expectation that their gummy, viscid properties may enable them to entangle and detach particles of the poison adherent to the mucous membrane (lining) of the stomach. In addition, they are soothing to the irritated condition of the parts.

**Tickling the throat.**

Tickling the inside of the throat with the finger, or with the tip of a feather, will in many instances suffice to induce vomiting. Frequently, after an emetic has been given, this procedure is used to hasten its action.

**Sulphate of zinc.**

Sulphate of zinc is another valuable emetic often found in private houses. As much as will lie heaped up on a twenty-five-cent piece is twenty grains, which is a dose, when dissolved in water. This quantity should be given

at a single draught, followed by a cup of tepid water, and repeated every three minutes, until three or four doses have been taken, or vomiting occurs. If there is none in the house, send to the nearest apothecary for sixty grains of the sulphate of zinc ("white vitriol"). Empty into half a pint of tepid water; stir rapidly with a stick, and it will soon dissolve. One-third of this half-pint contains, of course, twenty grains of the sixty put in, and that quantity should be given at a single draught, followed, as all emetics should be, by draughts of tepid water. In a few minutes repeat, as directed in the use of mustard, unless profuse vomiting takes place.

Ipecac.

Pulverized ipecacuanha is another valuable emetic, particularly for children. It can be obtained of any apothecary. Sixty grains (one dram) of it may be requested. It is a ground root, and does not dissolve in water, but mixes with it, like ground mustard. One-third of the sixty grains, which is twenty grains (as much in bulk as will heap up on a silver quarter), may be given, mixed with a small teacup of tepid water, followed by a draught of tepid water. In a few moments, if vomiting does not occur, give another third, as you gave the first, to be followed in sixty seconds more by the last.

Swallowing should be forced, if necessary.

A good deal of trouble is often experienced in getting the person to swallow. This may be due to insensibility, fright or stubbornness. The thumb of each hand may be slipped in outside and close against the teeth, along the line of junction, until the spot is reached behind which there are no teeth. Then through that vacant space slip the tips of the thumbs in between the jaws, when a separation can be readily effected. The thumbs should be kept there, for the patient cannot bite the attendant while his fingers are in such a position, and the handle of an iron or silver spoon or piece of smooth

stick may be thrust back far enough to forcibly depress the tongue. The liquid can then be poured down the throat, if the person is lying on his back. At first it will fill up the space at the base of the tongue, but a little more depression of the tongue by the spoon or stick will cause it to run down the throat. There need be no fear of the fluid getting into the windpipe, for a very sensitive valve over the entrance of the trachea (windpipe) amply protects it.

**Vomiting should be repeated.**

The first vomiting, as said before, does not necessarily clear the stomach of its contents. Much of the poison may remain adherent to the mucous membrane, requiring frequent washings for detachment and removal. After the first vomiting there is usually little trouble in keeping it up, by simply giving plenty of tepid water. Warm water alone, as said before, is often an emetic, and when none of the substances mentioned can be had, must be wholly relied upon for the purpose.

**Bowels should be purged.**

Before the action of an emetic can begin, a portion of the poison usually escapes from the stomach into the bowels. No vomiting can affect it; so, after the contents of the stomach have been removed by the action of the emetic, it is always well to administer a quick-acting purgative, such as Epsom salts, two teaspoonfuls in half a glass of water. Follow this in fifteen minutes by good quantities of milk, which, passing down, engages the activity of the poison. Flour and water will answer, but better, perhaps, is the white of eggs mixed with water.

**After-treatment.**

Now, we will suppose all the poison has been removed from the stomach by the above efforts. The next thing is the removal of the consequences of that portion of the poison which has already commenced its work. If the mucous membrane has been injured, it should have rest

from its usual work—digesting food—and be treated by suitable soothing applications, as barley water, gum-arabic water, and such things. This should follow where the poisoning is due to any of the mineral poisons.

## POISONING BY MUSHROOMS.

Poisoning by mushrooms.

Persons not well acquainted with the difference between the poisonous and edible mushrooms had better buy them of those who are or do without. There are distinctions between them, but they are not of such a character as can be made evident in this work.

When poisoning from eating mushrooms does take place, the contents of the stomach should at once be evacuated with an emetic. (See page 9.) After vomiting has commenced, it should be promoted by draughts of warm water or barley water, but particularly by drinking copiously of warm milk and water, to which sugar has been added.

What has passed into the bowels should be hurried out as fast as possible, with some cathartic, before further absorption into the blood can take place.

If there is much prostration, some easily procured stimulant might be useful, as aromatic spirits of ammonia or brandy. A very excellent antidote is tincture of belladonna, ten drops in a little water every hour, until four or five doses have been taken.

## POISONOUS MEATS.

Poisonous meats.

The eating of meat from diseased animals is often followed by symptoms of a poisonous character. Animals otherwise in perfect health, but which have been butchered and prepared for food after long and exhaustive confinement, are unfit for eating. Not only is the meat of such animals lacking in nutritive character, when

compared with the meat of animals killed from the pasture without excitement, or after being kept until proper recovery from the effects of the journey to market, but it is much less savory, and shows a disposition to decompose much more readily. It has been estimated by competent authorities that between the two kinds of meat there is, in a commercial sense alone, as far as nutriment is concerned, a difference of nearly fifty per cent in favor of the meat of healthful animals, butchered after complete recovery from the excitement and fatigue of drive or carriage to market. The additional cost per pound of meat to cover the expenses of extra care and precaution before butchering would amount to but a small fraction of the percentage named, leaving the rest of it a true profit to the consumer.

The eating of this overdriven meat is sometimes followed by symptoms of irritation of the stomach and bowels; but they can, in the ordinary sense of the word, scarcely be said to be of a poisonous character, however much the use of them may temporarily derange the health.

## POISONOUS FISH.

Poisonous fish.

Several varieties of fish, at all seasons of the year, are reputed to be poisonous. These should, of course, always be let alone. Should they have been eaten by accident, the best treatment is that given under the head of "Poisoning by Mushrooms," page 13.

Shellfish, at certain seasons of the year, after spawning, are considered poisonous; at least, they are unhealthy. This process of nature is known to be very exhausting, and during it, or just afterward, the shellfish is so reduced in vitality as to be unable to resist the ordinary tendency to decomposition.

Oysters in hot weather are often unwholesome, perhaps from the causes suggested, or it may be that the collection of liquid secretion between the shell and the contained animal, in hot weather, is in a state favorable to putrefaction upon slight exposure to the air, and that the disagreeable symptoms often said to arise after partaking of this fish as food is due to this as much as to anything else.

## MINERAL POISONS.

Alkalies, Alkaline Earths, Acids, Metals, Etc.

### ACIDS.

The common acids—acetic, muriatic, nitric ("aqua fortis"), sulphuric ("oil of vitriol")—are highly corrosive in their action, unless largely diluted, and act with even greater rapidity when taken internally than when applied externally. They are as troublesome in this respect as concentrated alkalies. **Acids.**

When taken, the acid should be neutralized, as far as possible, by giving some harmless alkali. Cooking soda or saleratus, a teaspoonful of either, in half a glass of water, can be given every few minutes until several doses have been taken. Lime water might be used for the same purpose, and aromatic spirits of ammonia, besides neutralizing the acid, would be of value as a stimulant. Common soap, from the alkali it contains, might be given.

### AMMONIA.

The ordinary aqua ammoniæ, sometimes known as "hartshorn," acts on the mucous membrane of the stomach, as we should expect it to do, knowing its effect upon the mucous membrane of the nostrils. When swallowed it is a rapid, corrosive poison. Owing to its **Ammonia.**

pungency, it can scarcely be given by mistake in a state of purity. With olive oil, it forms the common "hartshorn liniment," and has thus been given internally.

A violently acting, corrosive substance like ammonia leaves no time for emetics. It is an alkali, and the common dilute acid known as vinegar will neutralize it. Lemon juice would also answer the purpose.

Other concentrated alkalies, as lime, soda and potash, act in the same manner as ammonia, and when taken internally must be combated in the same way and with the same difficulties in view.

## ANTIMONY.

Antimony.

This metal is rarely accessible in its purity. One of its salts, tartar emetic, or the wine of antimony (which is tartar emetic dissolved in wine), is the usual source of the poison. Vomiting is one of the most distressing and prominent symptoms of poisoning by this substance. Assisted by copious draughts of tepid water, sugar and water, flaxseed water, much of the poison in the stomach may be gotten out. Another symptom is great prostration. If a small quantity only is known to have been swallowed, a teaspoonful of paregoric in a little sweetened water may be divided into three portions, one portion being given every ten or fifteen minutes. It soothes the irritated and excited stomach.

The antidote usually recommended is nut-galls, or oak-bark in powder. Half a dozen of the former, finely powdered, may be given, mixed with water. The active principle in each of these is what is called tannin, or tannic acid, now to be had of every apothecary and dyer. Ten grains of it (a teaspoonful—it is very light) in water will be equivalent to the nut-galls mentioned. A strong

infusion of common green tea contains enough tannin to make it useful as an antidote. An insoluble, and perhaps inert, tannate of antimony is formed.

## ARSENIC.

In some places this is called "ratsbane," and poisoning often occurs from it. The yellow sulphuret of arsenic (orpiment), the red sulphuret of arsenic (realgar), and the arsenite of copper (paris green), employed in the arts, have all been used internally with fatal effects. All these sources of poisoning by arsenic should be surrounded with every possible precaution to prevent them from being accidentally used. Many "fly poisons" contain it, and what is used in medicine under the name of Fowler's Solution is a solution of arsenic.

**Poisonous varieties of arsenic.**

Arsenic acts as an irritant to the stomach and bowels in many respects like antimony and its preparations. As soon as it becomes known that arsenic or any of its preparations have been swallowed in poisonous doses, the poison taken should be dislodged from the stomach, as far as possible, by vomiting (see "Emetics," page 9), assisted by the finger to the throat, or the feather part of a quill. Free drinking of milk, white of egg and water, or flour and water should be encouraged. Not only do these things encourage vomiting and dilute the poison, but at the same time they tend to envelop the particles of the poison until the mass can be removed from the stomach.

**Use of emetics.**

The antidote for arsenic is the freshly prepared hydrated sesquioxide of iron. This can be had of any apothecary in a few moments of time. It is quite harmless in character, and may be given in almost any quantity. The iron, in this particular form, combines with the arsenic, forming a temporarily harmless preparation.

**The antidote and its preparation.**

This newly formed compound should not be permitted to remain and be digested, but must be dislodged afterward by an emetic, which the bulk of the antidote favors.

The hydrated sesquioxide can be made by almost anyone in a few moments. Take a glass tumbler, or a graduated measure, pour in three or four tablespoonfuls (quantity not of much importance) of aqua ammoniæ, and then a tablespoonful or more of tincture of chloride of iron. Instead of the ammonia we may use a strong solution of cooking or washing soda, two or three teaspoonfuls dissolved in as many tablespoonfuls of water.

A thick, dark, reddish precipitate, like brick dust, is at once seen in the mixed liquids, which may be increased in quantity by gently stirring with a broom-splint.

This precipitate is the sesquioxide, and it must be separated from the liquid by spreading a fine handkerchief or closely woven piece of muslin over a cup and pouring on the mixture. The liquid will run through, leaving the desired oxide of iron as a reddish-brown, jelly-like powder. To free it from any excess of either substance used in its formation, a half-pint or so of tepid water should be poured on in a gentle stream to wash the precipitate. The washed precipitate is now ready for use. A teaspoonful of it may be given every few minutes.

Calcined magnesia and pulverized charcoal have also been recommended as antidotes in poisoning by arsenic, but of their value nothing can be said by the writer.

## BARYTA.

Baryta.

This substance, largely used to adulterate certain paints, is sometimes accidentally swallowed in poisonous doses.

The antidote is water, acidulated to about the strength of lemonade with sulphuric acid. This converts the baryta into an insoluble compound, which must be dislodged from the stomach by an emetic. Epsom salts or Glauber's salts may be used instead of sulphuric acid.

## COPPER

Poisoning from copper occurs most commonly through the careless use of utensils made of it. Most acids form soluble salts with copper; hence acids should never be used for cooking purposes in copper vessels. Many of the ordinary vegetables and fruits contain enough acid to form poisonous salts with the metal. Even sugar, from the ease with which solutions of it are changed into acids, should be cautiously used in contact with copper. When copper is mentioned it must be understood to include brass and other alloys into which copper enters as a necessary component

**Copper.**

The stomach must be emptied at once by an emetic, and copious draughts of milk, or the white of eggs mixed with water. Carbonate of soda (the ordinary baking soda or cooking soda will answer) is said to be an antidote. As much as will lie heaped up on a silver quarter can be given every five minutes, in water or in the other named liquids. Yellow prussiate, or ferro-cyanide of potash, is an efficient antidote, if it can be obtained pure.

**Treatment of copper poisoning.**

## IODINE.

The common tincture of iodine, used for external application, is the usual form of this poison. Starch, in water, is a mild antidote, and may be freely given until vomiting is secured by an emetic.

**Iodine.**

## IRON.

**Iron.**

The form usually taken is a solution of the sulphate of iron (copperas, green vitriol). Its action, like most of the poisons heretofore described, is that of an irritant poison on the mucous membrane (lining) of the stomach and bowels. The antidote is carbonate of soda.

## LEAD.

**Lead.**

Poisoning by this substance usually is due to the acetate of lead (sugar of lead). The carbonate of lead, the "white lead" of the painters, and the red oxide ("red lead") are also sometimes swallowed in poisonous doses. They all act as irritant poisons.

**Antidote for lead poisoning.**

The treatment in such cases consists in giving, as an antidote, water acidulated to about the strength of lemonade with sulphuric acid ("oil of vitriol"). Sulphate of magnesia (Epsom salts) and sulphate of soda (Glauber's salts), in water, are also good antidotes. After the antidote has been given in poisoning by lead, an emetic should be given.

**Chronic lead poisoning.**

When lead is taken for some time in any of the soluble forms in small doses, as when water has been kept in leaden vessels, or food kept or cooked in vessels "glazed" with lead, or the use of wines "sweetened" with the same metal, a peculiar train of symptoms slowly follows, known as "lead poisoning," or "painters' colic." All such possible sources of the introduction of lead into the system should be carefully avoided, and as soon as the effects of the absorption begin to be suspected no time should be lost in consulting a physician.

## LIME.

**Lime.**

If accidentally administered, lime acts like ammonia. (Page 15.)

## MERCURY.

Mercury.

The bichloride of mercury (corrosive sublimate), often used as a solution in houses for destroying vermin about beds, is a most active poison when taken internally. The red oxide of mercury (red precipitate) is another dangerous salt of the same metal. When swallowed, the white of eggs should at once be given, and often repeated. In the absence of this form of albumen, common milk can be used, or wheat flour beaten up with water.

These salts of mercury not only irritate the stomach, but so rapidly inflame and destroy it that some writers discourage the use of emetics. If one can be given, however, before the poison has had time to produce these extreme results, there can be no objection to its use. The continued administration of the antidotes is soon followed, as a rule, by free vomiting.

## PHOSPHORUS.

Phosphorus.

This is probably not often taken in a state of purity. It is the active ingredient of most of the popular "Exterminators" for rats and other vermin. These, as well as the ends of matches, have been taken with fatal results. Phosphorus acts as an irritant poison, inflaming the mucous membrane with which it comes in contract.

Treatment of poisoning by phosphorus.

A good antidote is sulphate of copper, five or ten grains of which can be given in water every fifteen minutes until four doses have been taken. The sulphate of copper is also a poison, but it is an active emetic, and all measures must be taken to promote vomiting.

Another efficient antidote is turpentine, especially the old French variety. This can be given in fifteen-drop doses for five or six doses.

As fat dissolves phosphorus, no form of food containing this should be given for a day or two, not even milk or eggs.

## POTASH.

Potash.

The caustic potash, in the form of common lye, or the concentrated lye, when swallowed, acts as other alkalies of the same general character. (See "Ammonia.")

Nitrate of potash (saltpetre), in large doses, say half an ounce or more, taken internally, is followed by poisonous symptoms. There is pain, with heat in the stomach, vomiting, and purging of blood, great prostration, and other symptoms denoting the action of an irritant poison.

No antidote is known. The treatment consists in rapidly evacuating the contents of the stomach with an emetic, and the free administration of mucilaginous drinks, with some paregoric every little while, to allay the pain and irritation of the inflamed parts.

## SILVER.

Silver.

The chief source of this poison is the nitrate of silver (lunar caustic), either solid or in solution. Its action as a "caustic" is well known, and it is in this manner that it acts upon the throat, stomach, etc., when taken internally, in solid stick or in solution.

Nitrate of silver is the base of the numerous popular "hair dyes," and under this form has been accidentally and criminally taken.

Antidote.

The antidote for the salts of silver is common salt, which immediately decomposes and destroys its activity. The rapidity and completeness with which this is done are seen in the well-known precaution of preventing solutions of silver employed as indelible ink from staining, by immediately, while the spot is moist, touching it with salt and water.

## SODA.

Soda.

The same things are to be said about this alkali as about ammonia.

## TIN.

Tin.

Several compounds of this substance are used by dyers, and have been used as poisons. They all act as irritant poisons. The treatment consists of copious draughts of milk, white of eggs in water, and flour and water.

## ZINC.

Zinc.

The sulphate of zinc (white vitriol) might be termed poisonous in very large doses were it not for the fact that it at once causes vomiting, and is brought up before damage can be done. Hence it is regarded as one of our most valuable emetics.

## VEGETABLE POISONS.

Vegetable poisons.

Most of the class of poisons termed vegetable act as narcotics or as acro-narcotics. With some modifications, which will be mentioned in place, the treatment of all cases of narcotic poisoning is essentially the same, and a similar statement may be made in reference to the treatment of all cases of acro-narcotic poisoning. Hence, in speaking of the vegetable poison standing first in the alphabetical arrangement of these substances, the directions have been given under two heads—the nature of the acrid or irritating symptoms and the treatment of the narcotic symptoms. In speaking of the other poisons, to save space and avoid repetition, the reader will be directed, for details of treatment, to some one of the substances where directions are given in full.

## ACONITE.

Aconite.

Aconite is known under the names of "monkshood" and "wolfsbane." When swallowed in an overdose, it is rapidly followed by symptoms known as acro-narcotic,

in other words, irritating to the throat and stomach, and narcotic to the brain and nervous system. The treatment naturally consists in getting out of the stomach all the poison there not already absorbed into the blood. In acro-narcotic poisoning we have two reasons in view for such a course: first, to avoid, as much as possible, the irritating action of the poison on the mucous membrane which lines the stomach and its approaches, and, secondly, to prevent further absorption into the blood and narcotization of the brain and nervous system.

Treatment.

The contents of the stomach are removed by tickling the throat and base of the tongue with the finger or a feather. An emetic (page 9) of mustard and water, pulverized ipecacuanha, or sulphate of zinc, flaxseed tea, gum-arabic water, sugar and water, milk, white of egg, or things of this general character, should be freely given at the same time to protect the mucous membrane of the stomach from the irritating feature of the poison.

As there is nothing known which will neutralize or destroy the poison in the blood, acting through the brain and nervous system upon the important organs of breathing and circulation, the efforts for relief must consist in keeping up the respiration by artificial breathing until the kidneys, skin and other organs have had time to eliminate the aconite. As this poison weakens the heart's action, we must use stimulants freely to counteract this effect, such as brandy, whiskey, aromatic spirits of ammonia or strong coffee.

## ALCOHOL.

Alcohol itself, or in the form of brandy, gin, rum or whiskey, taken in large quantities, is followed by symptoms of a violent poisonous character; and if relief is not at once obtained, death often ensues. The press reports

instances not infrequently where children have swallowed alcohol left within their reach, and have died in consequence.

**Treatment of acute poisoning by alcohol.**

When quantities sufficiently large to be followed by alarming symptoms have been taken, the contents of the stomach should be evacuated without delay, by tickling the throat with a feather or the tip of the finger, or by an emetic, such as ground mustard and water, pulverized ipecacuanha, or sulphate of zinc; or the stomach-pump may be used, if convenient. The vomiting should be assisted by copious draughts of warm water.

The alcohol in the stomach having thus been disposed of, the portion which has passed from the stomach into the blood, and has been carried to the brain and to the rest of the nervous system, where its poisonous action is being exerted, next claims attention, should symptoms appear to demand it. The action of alcohol and its preparations upon the brain and nervous system is seen under the common name of intoxication. This may consist of mere stupor, or the brain and nervous system may be so completely overcome by the poison in the blood that the influence of these parts upon the muscular movements of the chest and the heart is no longer kept up, and death ensues from asphyxia.

**Need of artificial respiration.**

For this reason artificial respiration by the Sylvester method is sometimes resorted to, and may be maintained for hours. Strong coffee is also of much value as a stimulant. The practice of walking the patient around has no merit unless he is able to use his legs himself, and if he can do that there is no need for the exercise. Cold-water douches also are not advisable, although they seem to do good for a few moments. The body and extremities should be kept warm by flannels and hot-water bottles.

## BELLADONNA.

**Belladonna.**

Belladonna, or "deadly nightshade," has been introduced into our gardens as an ornamental flower, and poisoning sometimes occurs from eating the berries or leaves. Solutions of this or of its active principle, **Atropine.** atropine, are used under various forms, and should never be left where they can be swallowed by mistake.

Belladonna acts as a narcotic poison, like opium in many respects, only there is dilation, to a marked degree, of the pupil of the eye, and a peculiar redness or suffusion of the face, which are not seen in poisoning by opium. The duskiness of the face is the symptom first observed by the physician. To discriminate between the two, it may be remarked that stramonium (thorn **Symptoms of poisoning** apple, jimson weed) produces results closely resembling belladonna. Both of these substances—belladonna and stramonium—are attended, when swallowed in large doses, with a peculiar dryness of the throat and mouth, and delirium, not accompanied at first with stupor, like opium, but with violent gestures, and often violent laughter, and a peculiar disposition to pick in the air, or at the clothing, for imaginary objects.

Treatment is similar to that for aconite poisoning.

## BRYONY.

The root of this plant, when swallowed in sufficient **Bryony.** quantity, acts as an acrid, highly irritating poison. It is quite a common plant in Europe, but is less seen in the United States.

If taken in poisonous quantities, empty the stomach as soon as possible; and, as in the case of all highly irritating poisons, this should be followed by free drinking of milk, flaxseed tea, white of egg and water, sugar and water, gum-arabic water, and similar things.

## CAMPHOR.

Camphor.

When taken in large doses, camphor acts as a narcotic poison. The contents of the stomach, in such cases, should be evacuated by an emetic (page 9), followed by draughts of warm water, flaxseed tea, gum-arabic water, milk and similar substances. The strong odor of camphor in the breath and perspiration, in case of poisoning, with narcotic symptoms, would naturally indicate the character of the poison.

## CARBOLIC ACID.

Carbolic acid.

This is frequently used as a poison nowadays. In some cases the action is so promptly fatal that there is no time for treatment. If possible the stomach should be evacuated, and large doses of any soluble sulphate, such as Epsom or Glauber's salts, should be given. As the prostration is apt to be great, these will have to be followed by stimulants.

## DIGITALIS ("FOXGLOVE").

Digitalis.

This beautiful plant of the garden, cultivated in this country for its flower, and used, in proper quantities, as a valuable medicine, is a poison of the narcotic class, with a disposition to overcome the portion of the nervous system controlling the action of the heart.

Treatment of digitalis poisoning.

The treatment is very similar to that for aconite poisoning, although in medicinal doses this drug is used to strengthen the heart's action. The reason for this apparent inconsistency is that in poisonous doses digitalis enormously over-stimulates the heart, so that in a little while it becomes very tired, and its action becomes weak. At this time, however, some other stimulant may still be effective until the poisonous influence of the digitalis has been eliminated. Great care must be taken

to keep the patient flat in bed. Even sitting up may be sufficient to stop entirely the already weakened heart.

## DULCAMARA ("BITTERSWEET," "WOODY NIGHTSHADE").

**Dulcamara.**

This well-known plant belongs to the narcotic class of poisons, with symptoms like those of belladonna and stramonium. The treatment is the same as for aconite.

## HYOSCYAMUS ("HENBANE").

**Hyoscyamus.**

This vegetable, made use of in medicine, if taken internally in improper quantities, acts as a narcotic poison, like others of the same natural order (Solanacæ), such as belladonna, dulcamara and stramonium.

The treatment is the same as for aconite.

## LOBELIA ("INDIAN TOBACCO").

**Lobelia.**

This vegetable is not now much used as a medicine by physicians, as comparatively recent chemical discoveries have added substitutes to the list of drugs which do not possess the peculiar disadvantages of this substance.

In poisonous amounts lobelia belongs to the class of acro-narcotics spoken of under the head of "Aconite." (Page 23.) Fortunately one of the symptoms following its use is vomiting. This should be encouraged by drinks of tepid water, gum-arabic water, etc., and if kept up until all the poison is rejected by the stomacha favorable issue may be expected. Should vomiting not occur at once, as a symptom, enough of the poison may be absorbed into the blood to exert a fatal narcotic influence upon the brain and nervous system; or, to speak more precisely, through these organs upon the movements of respiration and the circulation.

## OPIUM.

This substance, or the numerous preparations of it used in medicine, is one of the most frequent causes of poisoning a physician is called to treat. A common mistake is that of confounding laudanum and paregoric. A teaspoonful of laudanum contains six grains of opium, but a teaspoonful of paregoric contains only one-quarter of a grain. When the latter is supposed to have been given by the nurse, the mistake is often not discovered until it is too late to be of material service in averting a fatal end. Morphine, the active principle of opium, is often kept in private houses as a solution for domestic use.

**Sources of opium poisoning.**

Any of these preparations of opium, in improper doses, will be followed by symptoms of narcotic poisoning. Not only these, but many popular nostrums, as "infant cordials" and soothing syrups of various kinds, depend for their utility upon some preparation of opium, and hence are often followed by symptoms of narcotic poisoning. None of these things should be used. If a child cries, it does so usually because it feels pain; and instead of making it stupid with narcotics, so that it cannot feel the pain, it is better to endeavor to find the cause and remove it. There is some reason for the suspicion that, in many instances, where a modicum of the popular remedies of this class are not furnished by the mother to the nursery the enterprise of the nurse ("rather than see the child suffer") secures them from a neighboring apothecary shop for the charge committed to her care.

Opium, its preparations, and the active principle of the drug, morphia, all act in the same way, by absorption into the blood, and distribution by it to the brain and nervous system. Through these organs the movements of the chest and heart become more or less interfered with. In this respect, its action is essentially like that of

carbonic acid gas, alcohol and most of the vegetable poisons herein described, without, however, any acrid or irritating complication.

Treatment of opium poisoning.

Treatment.—What is in the stomach must be taken out, to prevent further absorption, and what is in the blood must be worked out, under proper guidance, by the processes of nature constantly engaged with such products. If breathing and the circulation tend to cease, because of the inability of the brain and nervous system to temporarily discharge these duties, these essential movements must be taken charge of by a friend.

An active emetic, like ground mustard, must be given at once, remembering that trouble may be found in getting it to act, because of the diminished sensibility to its presence, from the local stupefying action of the opium upon the mucous membrane of the stomach. The action of the mustard should be assisted by tickling the inside of the throat with the finger or a feather.

Sulphate of zinc, salt and water, pulverized ipecacuanha may be given; in fact, anything to empty the stomach as soon as possible.

If the respiration is not suspended, but is going on at a diminished rate, above eight to the minute, artificial respiration is not required until the number of respiratory movements of the chest falls below this.

Treatment in mild cases of opium poisoning.

A strong stimulant, in the shape of twenty or thirty drops of aromatic spirits of ammonia in a tablespoonful of water, may be given three or four times, at intervals of a couple or more minutes. It is better than brandy, or anything alcoholic, because the mode of action of brandy is much the same upon the brain as opium, and it might be rather adding to than taking from the poison that is at work. A few tablespoonfuls of very strong, freshly made coffee is a useful thing to give in such cases. If potassium

permanganate can be obtained, it should be given in doses of five grains in water every fifteen minutes until four doses have been taken.

**Antidote.**

The most efficient antidote is belladonna or its active principle, atropine. Ten drops of the tincture of belladonna or one-hundredth of a grain of atropine should be given every fifteen minutes until four doses have been taken. No more than this should be given without the advice of a physician.

**Treatment in severe cases of opium poisoning.**

When the respirations get below eight to the minute, it is necessary to resort to artificial breathing by Sylvester's ready method. This may have to be kept up for hours before all danger is past. It is well to stop every fifteen minutes for a minute or two in order to see if the natural respirations will maintain themselves at a rate over eight a minute. As long as this is the case we can rest; but the breathing must be carefully noted all the time and counted with a watch. The body and extremities must be kept warmly covered, and hot-water bottles used if necessary. The old measures of walking the patient around or of dashing him with cold water are only mentioned in order to be prohibited. They exhaust without doing any good.

**After-treatment.**

In case medical assistance shall not have been secured, and the patient shows signs of improvement, in the shape of more frequent respirations, stronger pulse and returning consciousness, many of these measures may be omitted as the apparent necessity disappears. In a short time the patient will have the appearance of a person soundly sleeping from the effects of a full dose of opium or other narcotic, the quantity beyond that having been parted with by the blood. He may now be let alone, unless some return to the previous condition is noticed, when a dose or two of the strong and easily procured stimulant,

aromatic spirits of ammonia, or coffee, may again be given him. If necessary, artificial respiration must be resumed.

## OXALIC ACID.

Oxalic acid.

This substance is largely used in the arts, and in private households, for removing stains of iron from textures and surfaces, which it does by combining with an otherwise insoluble salt of iron and converting it into a soluble oxalate of iron, easily removable by water. From the strong resemblance oxalic acid bears to Epsom salts, it has often been taken instead of the well-known purgative of that name. To avoid the possibility of such an accident, oxalic acid should be kept in another part of the house from that in which medicines are kept, and no precaution omitted, by label and other marking of the parcel, to make the difference between them as decided as possible. It is well to remember also that, wholly unlike Epson salts, the taste of oxalic acid, applied to the tongue, is quite sour.

When taken internally the activity of this poison admits of no delay. It belongs to the class of irritant poisons spoken of so often, and produces death chiefly by destructive action on the mucous membrane (lining) of the throat, stomach and bowels.

Antidote for oxalic acid.

Time can scarcely be lost to give an emetic; but something must be given to rapidly combine with the poison and divert its activity from the parts mentioned. It has a strong affinity for lime, forming with it a comparatively insoluble oxalate of lime, and it also has a strong affinity for magnesia, forming with it an insoluble oxalate of magnesia, which can be dislodged with less haste. A teaspoonful of lime from a whitewash bucket,

mixed with a cup of water, might be given every few minutes, or some crushed chalk (a carbonate of lime), or some magnesia, may be given. All these things can easily be had, and not a moment should be lost in getting the person to swallow them. The common "whiting" used for polishing glass and making cheap paint and putty is essentially the same as prepared chalk. After the oxalic acid is supposed to have been neutralized, an emetic of ground mustard or pulverized ipecacuanha may be given.

Scraping the ceiling or wall will not procure the antidote if plaster of paris has been used instead of common lime, as is often the case. The often recommended mantel images of plaster of paris are also of little use. Lime in the sulphate (plaster of paris) is too firmly united to the sulphuric acid to give it up for oxalic.

**Oxalate of potash, or salts of lemon or sorrel.**

Oxalate of potash, commonly called salts of lemon, or salts of sorrel, produces the same result as oxalic acid, and the treatment is the same.

## PULSATILLA.

**Pulsatilla.**

The eating of this plant, "meadow anemone," or parts of it, has been followed by symptoms of acro-narcotic poisoning. The plant is so active at times that when applied externally, irritation to the parts touched is felt. When poisoning results from swallowing it, the course of treatment recommended under "Aconite" (page 23) may be followed.

## SANGUINARIA ("BLOODROOT").

**Sanguinaria.**

Taken internally in an overdose, sanguinaria acts as acro-narcotic poison. See "Aconite" (page 23).

## SAVINE.

Savine.

This is an active, irritating poison, inflaming the stomach and bowels. When thus taken, vomiting should at once be induced by tickling the throat with the finger or a feather. The mucous membrane (lining) of the bowels should be protected from the irritating action of the poison that escaped beyond the stomach before it could be emptied by vomiting, by drinking large quantities of warm water or milk, with good quantities of gum-arabic dissolved in it. If the oil of savine, which is the usual form of the substance when used with criminal intent, has been taken, it might be well to take a dose of castor oil.

## SPIGELIA.

Spigelia.

The use of this plant, commonly called "pinkroot," as a destroyer of worms, was given, it is said, to the whites by the Cherokee Indians, and has become very general throughout the entire country. It is given with a great deal of confidence and recklessness, and is often followed by symptoms of a narcotic character, attended also with convulsive movements. When such poisonous symptoms follow its use, vomiting should be promoted and kept up by frequent draughts of warm water. As in the case of other narcotics, a drink of strong coffee may be of service. Acidulated drinks, as water and vinegar or water with lemon juice, are thought to be useful, and probably are, in favoring the elimination of the poison absorbed into the blood by the action of the skin and kidneys.

## STRAMONIUM.

Stramonium

Usually known as "thorn apple" or "jimson weed," belongs to the same natural order in botany as belladonna, dulcamara and hyoscyamus, and when taken

internally in improper quantities is followed by similar general symptoms. Children often gather the seeds and eat them. A history of the case: The evidence of some of the seeds or capsules and the narcotic symptoms, with the peculiar duskiness of the face and dryness of the mouth and throat mentioned when speaking of belladonna, are sufficient to point out the vegetable used. There is a decided disposition to laugh and to pick at imaginary objects on the part of the person under its effects.

Treatment is the same as for aconite.

## STRYCHNIA.

**Strychnia.**

Strychnia is the active principle of nux vomica, or "dog button," as it is sometimes called, from the use often made of it. This poison acts in a peculiar manner upon the nervous system, throwing the muscles of the body into strong convulsive movements. There is a disposition during the convulsion for the heels and the back of the head to meet (opisthotonos), under the influence of the violent muscular movements. Whenever this is seen, and if seen it will surely be remembered, the coincidence between it and the use of strychnia should be remembered.

**Treatment.**

The stomach should be evacuated with the least possible delay, if it is known the person has just taken the poison. The patient must be kept quiet in bed in a room which is darkened and has the windows and doors shut. Thirty grains of bromide of sodium or potassium should be given at once and may be repeated in fifteen minutes. Ten grains of chloral hydrate can be added to each dose with marked benefit. It may be necessary to repeat these medicines a third or even a fourth time, but care should be taken not to overdose.

## TOBACCO.

Tobacco.

To a person not accustomed to its effects, tobacco is an acro-narcotic poison, agreeing in its essential character with aconite, and others of the same general class. The movements of the heart become so much interfered with that death may take place unless proper assistance is at once given. Fortunately, like lobelia, it acts as an emetic, and before enough can be absorbed into the blood from the stomach the contents of that organ are rejected. Hence, when death has ensued from the direct use of tobacco we find that it was used as an injection, a form in which it should never be given.

## OTHER VEGETABLE POISONS.

Besides those enumerated in the foregoing pages are many others, whose names even cannot be given here. Most of them belong to the acro-narcotic class and may be treated as advised in speaking of those mentioned under that head. (See "Aconite," page 23).

# REMEDIES

Next in value to the prevention of disease or accident is indemnity for the possible results of both. THE MUTUAL LIFE INSURANCE COMPANY OF NEW YORK provides such indemnity by its policies.

## REMEDIES.

In this section we will discuss briefly the simple remedies, both internal and external, which it is advisable to have in the house. Even in a city, where a drug store is always near, one will find it convenient and comfortable to have a medicine chest. In the country it is almost an essential.

Nowadays most medicines can be obtained in the form of tablets, each containing a definite quantity of drug, and we strongly urge the use of these whenever possible. The dosage is accurate, and the medicine keeps almost indefinitely without change or deterioration.

When liquids must be used, it is advisable to keep them in bottles with ground-glass stoppers. Most liquids evaporate slowly through an ordinary cork, and the result varies according to the nature of the preparation. In some, such as aromatic spirits of ammonia, it becomes very weak, and even useless. In others, such as laudanum, it may become two or three times as strong. We can readily appreciate how harmful an unknown change in either direction might be.

Powders should be kept in wide-mouthed bottles. They undergo changes less readily in bottles than in boxes of wood or pasteboard.

There should always be a label on the bottle, even if there is one on the stopper. Confusing mistakes can thus be avoided.

All the medicines should be kept in one box or closet, which should be securely locked, and the key should be kept some place where children cannot get it. In

this way both destruction of property and risk of life will be avoided.

We will divide remedies into two groups, internal and external, and will arrange them alphabetically in each.

## INTERNAL REMEDIES.

### ALCOHOL.

This is of great value as a stimulant, and some form of it should be kept on hand. The best varieties for medicinal purposes are brandy, whiskey and champagne, but in an emergency any kind of liquor or wine may be used. Brandy and whiskey contain about fifty per cent of alcohol, port and sherry about eighteen to twenty, champagne about fifteen, red and white wines eight to twelve. The dose varies greatly according to the needs of the case. It should be borne in mind that children are rather susceptible to alcohol. Where a tablespoonful of whiskey would be used in the case of an adult, we would give to a child of two, under similar circumstances, thirty drops ; to a child of six a teaspoonful.

### AMMONIA.

This is an excellent stimulant and antacid. It is used in the form of aromatic spirits of ammonia. The dose of this is thirty drops to a teaspoonful in half a glass of water. It can be repeated as often as necessary.

### ATROPINE.

This is the active principle of belladonna, and is used in the form of sulphate of atropine. It is of great value in poisoning by mushrooms or opium. It can be obtained in tablets, and the dose is one one-hundredth of a grain, equivalent to ten drops of the tincture of belladonna.

## BELLADONNA.

See "Atropine," which should always be used if it can be had. If not, the tincture of belladonna can be given in doses of ten drops. This can be obtained in tablet form.

## BISMUTH.

This is used in the form of the subnitrate or subcarbonate of bismuth, These are both white insoluble powders, and may be used interchangeably. Either of them is of great value in all forms of diarrhœa and dysentery. It can be given quite freely, an even teaspoonful every two or three hours not being excessive.

It is also used as a drying powder over wounds, and has the great merit of being absolutely non-poisonous and bland.

## BLACKBERRY BRANDY.

This is used in diarrhœa and dysentery as a stimulating astringent. The dose is a tablespoonful every two or three hours.

## BROMIDE.

This is of great value in allaying nervousness and promoting sleep, and also in strychnine poisoning. Either the bromide of sodium or potassium can be used, preferably the former. The dose is ten to twenty grains. It can be obtained in tablet form, but care should be taken to dissolve the tablets before administering.

## CALOMEL.

The value of this as a purgative is too well known to be described here. Formerly it was given in too large doses. Three or four half-grain tablets will work just as well as ten grains in powder.

## CASTOR OIL.

This is of great value as a preliminary purgative in all forms of diarrhœa and dysentery. The dose is one or two tablespoonfuls. The disagreeable flavor can be largely overcome by rinsing the mouth out thoroughly with a teaspoonful or two of raw brandy or whiskey, both before and after taking the oil.

## IPECAC.

This is a depressing emetic, and is of especial value in croup. It is so slow in its action that we prefer the sulphate of zinc in a case of poisoning. The dose of the powdered drug is fifteen grains, which can be repeated in twenty minutes. We generally give to children a teaspoonful of the syrup every twenty minutes until vomiting is produced.

## LIME WATER.

Put in a quart bottle a piece of freshly slacked lime as big as an English walnut. Fill the bottle with water and shake thoroughly. Let it stand twenty-four hours and you will have as good lime water as can be made. It can be kept in the same bottle, care being taken not to disturb the sediment. The bottle may be filled twice more with water, the same lime being used. After that the sediment should be cleaned out and fresh lime introduced.

## MUSTARD.

This is a stimulating emetic. A teaspoonful can be stirred into a pint of water, and a glassful given every fifteen minutes until vomiting is induced.

### OPIUM.

The best preparation of this is the deodorized tincture, which has the same strength as the ordinary tincture, commonly called laudanum. The dose is five drops, repeated every two or three hours if necessary. It can be obtained in tablet form. Children are very susceptible to opium, and for this reason we give them the very weak preparation known as paregoric, the proper name of which is camphorated tincture of opium. The dose of this for a child of two is ten drops; for one of three, thirty drops; for one of five, a teaspoonful. Even in these doses it should be used with great caution.

### QUININE.

The best preparation of this is the bisulphate. It can be obtained in tablet or pill form.

### SALTS—EPSOM AND GLAUBER'S.

The former is sulphate of magnesium, and is quite bitter. The latter is sulphate of sodium, and is much pleasanter to take. They are both purgatives, in doses of two to four teaspoonfuls dissolved in a glass of water.

### SULPHATE OF ZINC.

This is a very prompt emetic, and of great use in case of poisoning. The dose is twenty grains, which can be repeated every fifteen minutes until vomiting is produced. Three or four powders of this size should always be kept on hand.

## EXTERNAL REMEDIES.

### BICHLORIDE OF MERCURY.

This is commonly called "corrosive sublimate." It is of great value as an antiseptic and disinfectant. It is now very conveniently put up in tablet form. If each

tablet contains 7 3-10 grains, this can be dissolved in a pint of water, making a solution of the strength of 1 to 1,000. If a quart of water is used, the strength of course will be 1 to 2,000. These solutions should not be put in metal dishes, as the mercury will leave the water and unite with the metal. As corrosive sublimate is a very deadly poison, all precaution must be used to prevent its being taken internally.

## BORIC ACID.

This is not at all like an ordinary acid, but is a white powder, which dissolves easily in water. It is much used as a non-irritating, mild antiseptic. It is not strong enough for all purposes, but is of much value, as it is practically non-poisonous. A heaping teaspoonful, dissolved in a glass of warm water, will make a solution of the strength of 4 to 100. It is a very efficient dry antiseptic when mixed with bismuth subnitrate or subcarbonate. Three teaspoonfuls of bismuth with one of boric acid make a very serviceable drying powder.

## CARBOLIC ACID.

This is an efficient antiseptic, but poisonous, and also very irritating unless well diluted. It should never be used stronger than 1 in 30. This can be made by mixing one tablespoonful with a pint of water. It requires a little time and shaking for the mixture to be complete.

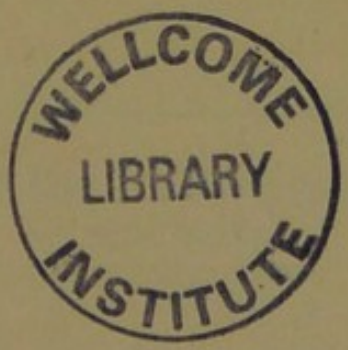
## COLLODION.

This is a solution of guncotton in alcohol and ether, with a little castor oil added to make the mixture flexible. It is a very nice covering for small cuts, much better in every way than plaster. It is a liquid which is quickly

applied to the dried surface by means of a small brush or swab. The alcohol and ether evaporate in a few seconds, leaving a firm, flexible film closely applied to the parts. This is not affected by water.

## MUSTARD PLASTER.

This is an excellent counter-irritant, and is of great value in many conditions. It is usually made too strong. One part of mustard to ten parts of flour is quite strong enough. This can be well mixed with enough cool water to make a moderately thick paste. The size should be liberal, care being taken that the paste is separated from the skin by one layer of muslin or linen. It can be kept on for three or four hours usually. After it is removed, the skin should be carefully dried and smeared with vaseline or some ointment. If an immediate effect is desired, the paste should be made of equal parts of mustard and flour. This, however, cannot be endured longer than a few minutes, and its action is frequently not as deep or far-reaching as that of the milder paste.



New-York Daily Tribune.

WEDNESDAY, NOVEMBER 12, 1902.

# A REMARKABLE INVESTMENT.

## MOUNT VERNON MAN'S WIDOW GETS A $1,000 ANNUITY—ONLY $2,095 20 HAD BEEN PAID FOR IT.

The story of one of the most unusual and successful investments of recent years has just come to light. The late John C. Tichenor, of Mount Vernon, by paying out a total sum of $2,095 20 secured to his widow an annual income of $1,000 for all the days of her life Mr Tichenor was president of the Globe Publishing Company, at No. 111 Fifth-ave., New-York City, and began his business career in Terre Haute, Ind

It was in the early part of 1899 that, then thirty-nine years old, he decided to take out a life insurance policy He investigated thoroughly the old line companies with their policies, payable in a lump sum to the beneficiary on the death of the "party of the first part." He looked into the claims of the secret societies with their benefit proposals. And finally it was called to his attention that the Mutual Life Insurance Company, of New-York, was offering a newly devised style of policy, which combined the orthodox advantages of oldtime insurance methods with certain modern emendations. But their policy, while attractive, was yet distinctly a business proposition, on a sound basis, with no possibility of risk or loss. On August 7, 1899, Mr. Tichenor signed the application and paid his first quarterly premium of $174 60. For the three succeeding years he continued to pay his premiums at the rate of $698 40 a year In September of this year he died.

The Mutual Life Insurance Company at once began payment of the policy at the rate of $1,000 a year. His widow, who lives at No. 130 Washington-st., Mount Vernon, will continue to receive that amount yearly until her death If that occurs within twenty years her heirs will receive the difference between $20,000 and what has already been paid to her at the rate of $1,000 a year, the original policy having been written for $20,000.

# GEO. H. DANIELS AS A PROPHET.

## General Passenger Agent of the New York Central Gave Advice to a Mechanic, Enabling Him to Go Into Business and Become A Rich Man.

(*Special Telegram.*)

NEW YORK, N. Y., March 11, 1902.

George H. Daniels, General Passenger Agent of the New York Central and Hudson River Railroad, President of the Sphinx Club, and one of the best-known railroad men in New York City, says that one of the happiest recollections of his life is the story of an endowment policy which he induced a mechanic in the Mallory Iron Works, of Elgin, Ill., to take out in 1865. "I was then an agent of The Mutual Life Insurance Company of New York," he says, "and, having won the confidence of this young man, I induced him to take out an endowment policy, payable in twenty years, telling him that the money might come in handy if he ever had a chance to buy into the business. It happened that just when the policy fell due Mr. Mallory wanted to retire from business, and with the money received from his Mutual Life policy, my young friend was able to make a cash payment on the purchase, bought the business, and is to-day a rich man.

"I know of many similar cases in Kane County, Ill., where those who took out policies in The Mutual realized handsomely on their investment during their life time.

"I have myself held a policy in The Mutual for over forty years."

*From Boston Herald.*

# Courier-Journal.

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THURSDAY.....JUNE 19, 1902


## Lord Pauncefote's Insurance.

New York, June 18. — Lord Pauncefote, the Ambassador of the British Government to the United States, was quite heavily insured in the Mutual Life Insurance Company of New York, and the claim was, of course, immediately paid upon his death. He was not insured in any other American company, but held policies issued by the best-known English institutions.

Boston Transcript

WEDNESDAY, JULY 23, 1902

**Its List Warmly Commended**

One of the most notable tributes ever paid to a great business corporation was that of the late Frederick D. Tappen of New York to The Mutual Life Insurance Company of New York. It was, in the words of the Hon. Levi P. Morton, "particularly impressive in that it is the expression of a judgment ripened by half a century's study of investment securities." Frederick D. Tappen, president of the Gallatin National Bank of New York and for the last fifty years a conspicuous figure in the banking world, died last February. In the last clause of his will Mr. Tappen provides for certain trusts, and instructs his executors and trustees to invest the proceeds of his estate only in securities "included in the list of investments made by The Mutual Life Insurance Company of New York, not limiting my said executors and trustees or their successors or successor to such investments only as trustees are by law authorized to make." The peculiar import of this provision will be understood by those familiar with Mr. Tappen's career and the conservative policy under which the investments of The Mutual Life Insurance Company of New York are made. This provision in Mr. Tappen's will is certainly a glowing tribute to fifty-nine years' conservative administration of the largest accumulation of trust funds in the world. Mr. Elbridge T. Gerry, a director of the company, in writing of it, said: "Compliments from the living are often insincere—those from the dead, never." It is of interest to note that Mr. Tappen had no connection with The Mutual Life Insurance Company except as a policy-holder.

# THE RECORD

**Nos. 917 and 919 Chestnut Street.**

**Philadelphia, November 13, 1902.**

## SNUG LEGACY FOR A WIDOW.

**Mr. Waterhouse Made Good Investment in Insurance.**

The late Archibald N. Waterhouse, of Philadelphia, who died suddenly last Friday, held policies amounting to $80,000 in the Mutual Life Insurance Company, of New York. The forms of insurance under which these policies were issued were so selected that his widow will receive at once $20,000 in cash and an annual income of $3000 for twenty years, and if she is living at the end of that period she will receive $60,000 in cash, making the total amount received under these policies $140,000, on which the premiums paid by Mr. Waterhouse amounted to only $27,492.20.

Of the total amount of this insurance $50,000 was taken under a form of policy devised and introduced by the Mutual Life Insurance Company of New York, and known as the 5 Per Cent. Debenture Policy. These policies will pay his widow $2500 a year for twenty years, and at the end of twenty years $50,000 in cash if she is then living. Should she die before the expiration of that time $50,000 will be paid her estate. On these policies ten premiums of $1955 each had been paid.

Another policy held by Mr. Waterhouse was a 5 Per Cent. Twenty-Year Gold Bond Policy of $10,000, on which he had paid six annual payments of $448.70 each. This form of policy was also devised and introduced by the Mutual Life Insurance Company of New York, and in settlement of this policy the company will issue ten one-thousand dollar 5 Per Cent. Twenty-Year Gold Bonds, the income from which will be $500 a year for twenty-years. The face of the policy, $10,000, will be paid at the end of twenty years. Mr. Waterhouse held another policy of $20,000, on which he had paid only seven annual payments of $750 each. Under this policy $20,000 in cash will be paid his widow at once.