

A TREATISE
ON
NUX VOMICA.

The Therapeutic Uses are written for this Treatise by PIRTS
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The Reproductions are from the writings of

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The Illustrations (C) are drawn for this Treatise by Mr. W.
F. HAMMER. and (A and B) from Bentham and Hooker, Medicinal
Plants.

The Description, History, Chemistry and Pharmaceutical
Record are by JOHN URI LLOYD.

Treatise No. I embraces Thuja Occidentalis.

Treatise No. II embraces Cactus Grandiflorus.

Treatise No. III embraces Pilocarpus (Jaborandi).

Treatise No. IV embraces Veratrum Viride.

Treatise No. V embraces Chionanthus Virginica.

Treatise No. VI embraces Asepsin and Asepsin Soap.

Treatise No. VII embraces Collinsonia Canadensis.

Treatise No. VIII embraces Nux Vomica.

Treatise No. IX will embrace Gelsemium.

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Nux Vomica.

Common Names.—Nux, Poison Nut, Dog Button, Vomic Nuts. The bark has been sold as *False Angustura*, and deaths have occurred in consequence.

Strychnos Nux Vomica.—The tree that yields this drug is of moderate size, and is indigenous to tropical India and adjacent islands. Its nearest relative in the United States is *Spigelia Marilandica*, the little plant which yields Pink-root. The wood of *Nux Vomica* is close-grained and bitter, and from a very early date has been used as a tonic by the natives of its habitat, by whom it is still employed in this manner. Under the old name "Lignum Columbrinum," the wood of this and related trees is valued by the natives of India as an antidote to the bite of the venemous serpent, cobra. The trunk is short, thick, crooked. The branches are ash colored, the young shoots highly polished. The fruit is about the size of a small orange, yellow and acidulous.

It contains a white edible pulp, which is eaten by children and many birds. In this pulp are imbedded, irregularly and vertically,



A.—FRUIT OF STRYCHNOS NUX VOMICA.
Reduced.



B.—TRANSVERSE SECTION OF FRUIT AND SEEDS
OF STRYCHNOS NUX VOMICA. Reduced.

from one to five disc-like seeds, which are intensely poisonous in character. (See cuts A and B.)



C.—SEEDS OF STRYCHNOS NUX VOMICA. Slightly reduced.

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Nux Vomica.—These button-like seeds (not nuts) are about an inch in diameter by one-fourth inch thick, the center portion being usually depressed. (See cuts C.) They are mouse colored or greenish, and lustrous by reason of a silky covering of adpressed glistening hairs. They are albuminous, very hard, tough, horny, and extremely bitter. They are not easily powdered, unless previously softened by steam. Maceration in water, especially hot water, softens the albumen, after which transverse slicing of the seed displays a mass of cartilaginous albumen, divided into two bean-like parts, between which lies the germ. These seeds are exported in immense quantities, thousands of tons being respectively consigned to England, the Continent, and America. From Nux Vomica is made the bulk of the Strychnine and Brucine of commerce, although St. Ignatius Bean yields a greater proportion of each alkaloid. In this connection it may be said that it has been erroneously reported that Nux Vomica is a medicinal product of the Philippines. The Philippine tree is, however, St. Ignatius.

In consequence of its poisonous nature, Nux Vomica was very reluctantly introduced into the European pharmacopœias. Indeed, it was recognized in America (1830) before it was official in England, although long before this date it was a dispensatory drug. In 1799, however, it was official in the Pharmacopœia Borussica, and in two other Continental European pharmacopœias.

Composition.—The dominating constituent of Nux Vomica is a complex compound which, in natural form, is an invaluable remedy. By means of chemical reagents it can be split into parts, embracing two intensely poisonous alkaloidal products, a glucosid, and acids. These alkaloids are Strychnine, Brucine, and perhaps Igasurine (yet in doubt). The main acid is Igasuric Acid, while the glucosid is named Loganin. These are all colorless bodies, the alkaloids being very bitter, and energetically poisonous, Brucine being a poison similar to Strychnine, acting with less violence and more slowly, but not less surely, than Strychnine.

Nux Vomica is an invaluable remedy in the therapy of each of the schools of medicine. Although first a favorite of the Regular school, to whom credit for its introduction is herein extended, it has come into great repute with both the Homœopathic and Eclectic schools, where it has received extended independent study, being one of the first in importance of all the Eclectic remedies.

Although the alkaloids of Nux Vomica have decided values and are energetic poisons, they are recognized by experienced practitioners as presenting but a fragment of the possibilities of the entire drug; especially is this the case in the therapy of the two latter

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named schools, whose provings have been made with exceptionally exact natural preparations, embodying the full drug value of Nux Vomica. (See remarks by Dr. Pitts E. Howes, p. 10.) In this connection, physicians in active practice and versed in clinical differentiation are aware that the natural Nux compound, whatever it may be, exhibits a kindliness, a protracted influence, and a uniformity of therapeutic action, impossible to parallel by means of either of the quick-shocking artificial substances (Strychnine or Brucine) that result from the chemical destruction of the natural structure that dominates Nux Vomica. This fact has led to the valuation of Nux *as such* in disease expression, whereas the reports that concern its ultimates, the poisonous alkaloids, are based largely on their intense physiological action on cats, dogs and other animals, in health.

Strychnine.— $C_{21}H_{22}N_2O_2$. This violently poisonous alkaloid is crystalline, slightly soluble in cold water (1 part in 6700 U. S. P.), the solution being alkaline and bitter. It dissolves in 7 parts of chloroform and 150 parts of 90% alcohol. Strychnine is a terrible tetanic poison, affecting the cerebro spinal system, but it kills without producing marked anatomical change, the muscles and nerves being scarcely altered, although the brain and spinal cord may be congested, stomach and limbs intensely congested, right side of heart gorged (sometimes empty), and the lungs congested. The fatal dose of Strychnine is as low as $\frac{1}{2}$ grain. Indeed, it is recorded that $\frac{1}{8}$ grain killed a two-year old child in four hours, while $\frac{1}{2}$ grain killed a man in twenty minutes.

Incompatibles.—Alkalies, iodides and bromides throw Strychnine from solution, the soluble bromides being especially dangerous because of their gradual change, which finally results in the precipitated bromide of Strychnine being given in one dose. For this reason, Nux Vomica preparations and solutions of its alkaloids should not be compounded with the above named substances, unless particular pains are taken to shake the mixture well, before each dose is taken.

Strychnine is absorbed by the blood, and circulates as such. It is eliminated unchanged in the urine, but is excreted very slowly, and therefore accumulates in the system. The fact that this powerfully poisonous alkaloid is so often used with criminal intent, and may be so easily administered imprudently by physicians, thus finally getting its cumulative poisonous effect, induces us to devote to it extra space, and to exercise greater care in cautioning our readers concerning its abuse, than we should were it an innocuous substance likely only to prove a disappointment in therapy, as is true of so

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many other so-called proximate principles, when contrasted with the action of the drug yielding them. We therefore present the following exceptionally lucid treatise concerning its toxicology:

Toxicology.—"In about an hour after a poisonous dose of Strychnine, the patient begins to feel uneasy from a sensation of impending suffocation. The tetanic convulsions then commence with great violence, nearly all the muscles of the body being affected at once. The limbs are thrown out, the hands are clenched, the head is jerked forwards and then bent backwards, and the whole body is perfectly stiff from the violence of the contractions. The pulse is very rapid; the temperature may rise. Hearing and sight are acute. The convulsion lasts a minute or two, then the muscles relax, and the patient feels exhausted and sweats all over. The intermission is short, convulsions soon come on again, and again there is a relapse to the state of muscular relaxation. The convulsions now rapidly increase in severity; and owing to the violent contractions of the muscles of the back, the patient is in the position of opisthotonos, resting on his head and his heels. The abdominal muscles are as hard as a board, the chest is fixed, the face becomes livid, the eyeballs are staring. The contraction of the muscles of the face causes a *risus sardonicus*; but those of the jaw are not affected till quite the end. Consciousness is retained to the last. The slightest noise or even a bright light will reflexly bring on the convulsions, which may jerk the patient out of bed. Ultimately he dies from exhaustion and asphyxia. The smallest dose of Strychnine known to have killed an adult is half a grain. *Post mortem.*—The usual appearances of death by asphyxia are seen."—*W. Hale White's Materia Medica and Therapeutics, 1901.*

Treatment.—If spasms have not closed the jaws, use the stomach pump at once. Employ emetics cautiously and discriminatively. Dr. Charles Rice, chemist of Bellevue Hospital, once wrote us that he had seen fatal convulsions follow the administration of an emetic, which seemed by its shock to produce death, and he opposed the use of emetics if it is possible to avoid them. However, if the Strychnine be not removed, death is as certain as from the shock of convulsion. Put the patient immediately under the influence of chloroform or ether, and keep him in perfect repose in a dark room. Inject large doses of potassium bromide and chloral hydrate *per rectum*. Use no stimulants and make no noise, avoiding whispering even, or feeling the sufferer's pulse. Chemical substances, such as tannin, simply retard alkaloidal absorption without decreasing the final lethal action of the drug. Physiological antidotes, or antagonistic poisons, such as chloroform internally; chloral by the rectum; morphine, physostigmine, and aconitine, hypodermically, sometimes delay death, or in case of small doses of the poison, help to bridge the patient over the critical period. But if enough Strychnine has been swallowed they can not save life unless the stomach be cleaned of the poison. A favorite treatment in Strychnine dog poisoning is to drench the dog freely with large amounts of melted lard, which acts both as an emetic and to envelope the Strychnine, thus retard-

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ing absorption. We have no record of this treatment having been used, even as an emergency, in humanity.

Brucine.—This related alkaloid is also a product of chemical action on Nux Vomica. It is known to chemists as dimethoxyl-strychnine $C_{23}H_{25}N_2O_4$. Brucine is very bitter, freely soluble in cold alcohol, soluble (U. S. P.) in 850 parts of cold water. It differs in reaction from Strychnine in that strong sulphuric or nitric acid strikes with it a blood-red color, whereas with Strychnine no coloration appears.* If to a hydrochloric acid solution of Brucine and Strychnine, potassium ferrocyanide solution be added, the Brucine precipitates, while the Strychnine remains dissolved. The mixed alkaloids can be quite closely separated by alcohol 0.97 sp. g., which freely dissolves Brucine, but scarcely dissolves Strychnine.

Brucine is a poison which has the physiological qualities of Strychnine, but in a markedly less degree. Authorities differ, some considering it one-sixteenth, others from one-fortieth to one-fiftieth less energetic than Strychnine as a convulsant. It is absorbed much slower, and although more energetic as concerns the sensory nerves, is decidedly less dangerous than Strychnine.

The antidotes and treatment for poisoning by Brucine are the same as for Strychnine.

PHARMACEUTICAL PREPARATIONS.

The alkaloids are sometimes prescribed in solution, and have long been made into pill, tablet or pellet form. Of the solutions, Hall's Solution of Strychnine is an old preparation occasionally used at present, especially by physicians inexperienced in the qualities of modern pharmacy as applied to the drug as a whole.† The sugared preparations carrying Strychnine and Brucine in tablet, pill and pellet form are simply mechanically divided alkaloidal doses, there being little if any distinction other than in name and no choice as concerns results. A tablet of one-sixteenth grain Strychnine is the same as a pellet or a pill of the same strength. Either form is easily and cheaply stamped out, and neither requires any greater amount of skill than do other similar mechanical forms of medication, and neither presents any real advantage over the other. The action of the amount of alkaloid guaranteed in such medicaments is rationally assured from any of them, and in instances where

*Space does not permit us to go into the chemical reactions of these alkaloids. Besides, we do not favor inducing persons not professional chemists to engage in such responsibilities.

† In early days, owing to the uncertainty of galenical methods, physicians often resorted to solutions of less representative substances. In addition, in the infancy of Eclecticism, the experimental craze concerning "alkaloids" and "resinoids" led many in the same direction.

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Strychnine can serve the purpose, such preparations are useful and active.

It has been clinically determined that small amounts of Strychnine, combined with quinine, iron and phosphoric acid, present decided tonic qualities not present in either when exhibited alone. In other words, they fortify each other. This fact should not be lost to mind when the tonic quality of either substance is desired, especially when either fails separately to accomplish the desired effect. This is somewhat in accord with the fact that the natural drug combination which yields Strychnine presents advantages over that alkaloid, but the combination case under consideration introduces a new combination involving outside substances. Modifications of the formula named are known as Easton's Syrup, Aitkin's Syrup, and the Eclectic "Compound Tonic Mixture," which last is very popular, and will be the subject of a special Drug Treatise. But for the fact that iron compounds blacken natural Nux Vomica solutions, the natural drug would unquestionably in all these preparations be far superior to Strychnine.

Combinations of Strychnine and Belladonna; Strychnine, Aloes and Belladonna; and similar mixtures, in pill and tablet form, are used as laxatives, but should be employed under the discriminating care of a physician. This applies also to all forms and to all salts of Strychnine, whether simple or compounded, tablet, pill or pellet. All are energetic and cumulative poisons.*

Brucine is largely neglected in therapy. No pharmaceutical preparation or compound of it (other than the natural Nux Vomica) is commended in the Pharmacopœia or related works. Just why this is the case is perhaps not easily explained. Owing to its less violent action, supposition is that it might be preferable in many cases to the more energetic Strychnine.

Tincture of Nux Vomica.—This preparation was among the first, if not the first official preparation of Nux. It is made to-day by dissolving 20 grams of dried extract of Nux Vomica in enough of a mixture of alcohol 3 volumes, water 1 volume, to make 1000 cubic centimeters. This is perhaps the best known drug-store preparation of Nux Vomica, and needs no special comment.

* Recently an observing authority in medicine stated that in his opinion the actual poisonous effects of Strychnine were to be seen in many directions where physicians thoughtlessly gave small doses of Strychnine until its cumulative lethal effect followed. One such case came directly under the observation of the writer. Especially is it to be deprecated that the laity have learned to use these ready-made tablets and compounded pills of Strychnine as a constant self-treatment as a laxative. When persons without discriminative care or professional knowledge turn to the bottle of "Strychnine, Belladonna and Aloin," or similar pellets, as if they were innocuous substances, it is as a child playing with fire over a barrel of gunpowder.

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Extract of Nux Vomica.—This is a dried extract, and is brought to a pulverulent condition by the addition of milk sugar. It has a light color, is very bitter, and by the assay process of the U. S. P. yields 15 per cent. mixed alkaloids. It is mainly used in pill form, and to make the Tincture.

Fluid Extract of Nux Vomica.—This is more concentrated than the Tincture, and is made direct from the drug. 100 cubic centimeters yields 1.5 grammes mixed alkaloids by the U. S. P. assay method. It is an excellent but imperfect pharmaceutical preparation, its process being too tedious to permit of profitable manipulation on a small scale. Owing to the fact that the element of time plays such an important part in the exhaustion of the drug, and the process demands such an amount of alcohol, there is great expense and loss in manipulating a small amount. This applies also to the solid extract. Fluid Extract of Nux Vomica is intensely bitter, but less elegant in appearance than the Tincture.

These official pharmaceutical preparations are all poisonous in overdoses, and should be used with the same precautions as directed for Strychnine.

Specific Medicine Nux Vomica.—This preparation has long been the favorite of Eclectic physicians, and is commended by the medical authorities contributing the therapy of this special study. It is one of the most beautiful and most perfect of pharmaceutical preparations, rivalling Specific Medicine Gelsemium, Specific Medicine Collinsonia, etc., both in appearance, elegance and effectiveness. It is not standardized to a Strychnine or Brucine constituent, being in itself a standard that yields these bodies which, however, are but fragments broken out of the preparation as a whole. Specific Medicine Nux Vomica has a rich golden color, is limpid, of a pleasant, rather fragrant odor, and when shaken does not color the container. It mixes freely with alcohol, water, syrup, glycerin, or mixtures in any proportion of these substances. The resultant dilution is clear, and is scarcely colored, unless the Specific Medicine Nux Vomica be in excessive proportion. It represents the Nux accurately, being uniform in quality and exactness, and is a standard in itself, being so recognized. It can be kept indefinitely without precipitation or alteration in any way, other than in the slight concentration which might occur in bottles insecurely stoppered. The standard of quality is that which experience has shown should be maintained in the natural drug structural relationships, regardless of any one alkaloid that may be broken out of the preparation. If one drop of Specific Nux Vomica be added to 7000 drops of dis-

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tilled water, the bitterness of the drug is apparent in the dilution. One drop in 2000 drops is distinctly bitter, while one drop in 500 drops is most decided. Since, however, it is very easy to make a bitter compound by the addition of minute amounts of Strychnine or Brucine, or some foreign body, if bitterness alone is sought, this quality may be paralleled by a sophisticant without any Nux whatever. We give it simply as a taste standard which applies to genuine Specific Medicine Nux Vomica, which is made of Nux Vomica only. In this preparation bitterness is not as decided as in solutions of much less Strychnine than the Specific Medicine will yield.*

Caution.—In prescribing Specific Medicine Nux Vomica, care should be taken to avoid alkaline combinations, or soluble bromides and iodides. If these are present, the mixture must be well shaken before each dose is taken, because they decompose the Specific Medicine, precipitating Strychnine and Brucine. (See p. 4.) A favorite prescription of Dr. John Fearn and others is a combination of Asepsin and Specific Medicine Nux Vomica. (See Drug Study, No. VI, Asepsin, p. 6.) Asepsin is alkaline, hence the mixture must be well shaken before the dose is taken. In Specific Nux Vomica we have an example of the high degree, both of excellence and elegance, of an Eclectic preparation that can result from the special study of a drug originally introduced by the Regular school, many of whose members as yet have no general conception of the elegance and qualities of this admirable preparation.

Specific Medicine Nux Vomica is poisonous in overdoses, and should be prescribed with circumspection. In cases of a poisonous overdose, the treatment given under Strychnine (p. 5) should be at once instituted.

The suggestions of Dr. Howes (p. 10) concerning the interrupted treatment in order both to obtain its fullest remedial value, and to avoid its lethal cumulative action, is important.

THERAPEUTICS OF NUX VOMICA.

By PITTS EDWIN HOWES, M. D., Boston, Mass.

Without doubt, Nux Vomica is one of the most valuable remedial agents which the physician has at his command for the relieving of diseased conditions.

* In this connection it may be said that natural compounds often present decidedly less disagreeable qualities than the products of chemical dissociation. The entire strength of a first-class cinchona bark can be made into a pleasant preparation, whereas a much less amount of quinine than it will yield, makes an unbearably disagreeable solution. The same rule applies to natural Nux Vomica, as shown in the Specific Medicine, which, although bitter, is yet pleasantly bitter to most persons.

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Were I restricted to five remedies for the alleviation of human ills, Specific Medicine Nux Vomica would hold a prominent place among the five.*

It would be an easy matter to fill up all the allotted space at my command with extracts from different writers testifying to the value of this drug, but such is not my intention. I desire in this paper to relate my own experience with the drug during the last twenty-three years.

However, a few preliminary statements are very essential, to my mind, to a correct understanding of what we have a right to expect from this drug:

First.—We must ever bear in mind that Nux Vomica represents the entire natural remedial constituents of the plant from which it is derived. We can not break it into its component parts, use them separately, and get from one constituent all the results we do from the original Specific Medicine.

All students of chemistry are familiar with the fact that the slightest change in the arrangement, or number, of atoms entering into a chemical combination is sufficient to produce a new compound. This new compound is entirely different in its uses and action. H_2SO_4 is the formula of sulphuric acid. Drop a single atom of oxygen and you have a very different substance, sulphurous acid. The same rule holds good with plant preparations. Break a natural compound into fragments by chemical means, such as fermentation, putrefaction, acids, alkalis, or other means, and new substances result. To destroy the complex compound in Nux Vomica by means of chemicals produces new substances, of which Strychnine is one, Brucine is another, Igasuric Acid a third, Loganin a fourth. The reputation of Nux Vomica in Eclectic medicine is established on the use of the entire structure embodying all these products, as shown by the Specific Medicine. The part that the ultimates represent in the natural structure, has not yet been determined. To transfer these established records of the whole to a fragment is fraudulent, because the fragment is not the whole.

With such facts as these constantly before them, I can not understand how some physicians can imagine that they obtain from the so-called active principle, which is a part only, the same results that they do from the representative of the entire plant.

Second.—We must remember that Nux Vomica is a remedy which can not be given indefinitely without detriment to our patients. Many

*Specific Nux Vomica stands fifth in a list compiled from several thousand reports of Eclectic physicians regarding the Eclectic Specific Medicines.—L.

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times the substitution of some other medicinal agent for a short period, and then a return to the "Nux," is all that lies between failure and success in many chronic cases.

Third.—The size of the dose is important. I am a firm believer in the small dose of the remedy which we employ.

This is emphatically true of Nux Vomica when you are using a reliable preparation like the "Specific Medicine."

Commence with your minute dose, *not infinitesimal*, and you will be surprised to see the results which you will obtain.

Fourth.—The action of Nux Vomica upon the human economy should not be forgotten. My experience teaches me that it exerts its force principally upon the muscular tissues that are not under the control of the cerebrum, and which are connected with the digestive, urinary or reproductive apparatus.

Fifth.—It can be combined with many other indicated drugs, and the combination will prove more beneficial than either of them if used separately.

With these statements properly comprehended, we are in a position to study profitably the therapeutical action of Nux Vomica upon the different parts of the body.

Diseases of the Stomach.—In stomachic difficulties Nux Vomica holds a prominent place. This is especially true where there is considerable fullness in the abdomen, with pain that is constant in the region of the umbilicus. The condition is doubtless one of atony. The muscular tissues of the stomach have become flabby, and are not equal to the demand which is made upon them by the digestive process. Specific Nux Vomica, gtt. ii to v, in aqua $\bar{3}$ iv, given in $\bar{3}$ j doses half hour, or hour, in acute cases, and the same dose every four hours in chronic cases, will prove curative. Sometimes the remedy needs to be assisted by some other indicated agent. Those which I have found the most commonly indicated are sodium sulphite and Specific Medicine dioscorea and lobelia; when these are helpful, their special indications are present.

Headache.—The "Nux" headache is the result of a disordered stomach—generally due to the condition described above. The pain is always located immediately above the eyebrows, extending across the frontal region, and is usually accompanied with more or less dizziness. The same amount of Specific Medicine Nux, as before advised, may be used, but the dilution should be more frequently given, $\bar{5}$ j doses every fifteen minutes until relief is obtained. Frequently the addition of either gelsemium or belladonna, according as the patient is excited, or dull and heavy, will materially aid the action of your "Nux."

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Vomiting.—Nux in a minute quantity—one drop in four ounces of water—given in 3j doses every ten minutes, will speedily control vomiting, unless the condition is due to an irritating substance within the stomach. Even the vomiting of pregnancy will often yield to the “Nux” when all other agents fail.

Intestinal Diseases.—Many of the intestinal wrongs yield to the influence of Nux Vomica, especially in those atonic individuals whose general condition seems to be below par. The digestive function of the small intestine seems at fault. Its function is not properly carried on, the semi-digested food forming a gas, which distends the bowel and is the cause of much distress. Here Specific Medicine Nux Vomica combined with dioscorea or colocynth will work a marvelous change.

Colic.—Infantile colic is speedily cured by means of Nux Vomica. Often has this drug made friends for me in the prompt relief produced in infantile colic. Here I use an extremely small dose. I pour into the teaspoon several drops of the Specific Nux Vomica, which I then pour back into the bottle, leaving only what will naturally adhere to the teaspoon. This I stir in a glass two-thirds full of water, and, if the patient is under a year old, direct that a half-teaspoonful be given to the child every half hour till relieved. If older than that, the dose should be one teaspoonful. This dose may seem small to many readers, but all I can say is, procure the Specific Nux Vomica, try it, and note the result.

As a tonic to the general digestive system after any form of acute illness, I have found the Nux Vomica an admirable agent. When using it for this purpose, I usually add gtts. v to gtts. x to $\bar{3}$ iv of albuminate of iron, and give teaspoonful doses of the dilution four times a day—before meals and at bed-time.

There is no one remedy with which I am acquainted that will so quickly restore the stomach to its normal state and keep it in such condition as Nux Vomica. Hence there are few diseased conditions where it can not be administered with advantage, for disease almost always interferes with digestion.

Urinary Disturbances.—If these are due to an atonic condition, the addition of Nux will decidedly aid any other medication that may be required. The Nux will tone up and strengthen the weak, flabby, muscular tissue, and exert a strong curative influence.

Diseases of Women.—Many of the diseases of women are the result of a weak, exhausted and over-taxed body. In such conditions, Nux proves very efficacious. It will also prove beneficial to the obstetrician when the pains are weak and atony is present.

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Heart Stimulant.—While Nux Vomica is not the quick heart stimulant that the intensely poisonous strychnine is, yet I am positive that it exerts a more decided, lasting, and more beneficial effect upon the muscular fibres of a heart, weakened by atony, than can possibly be produced by Strychnine.

All remedial effects which are permanent must be produced gradually. Diseased conditions are almost invariably the result of a gradual retrogression from the normal condition, or perfect health. Hence in our attempt to aid nature in her efforts to restore the normal equilibrium, we can best use those agents which will act, not strongly and quickly—they have their place in certain conditions and are then indispensable—but those which will gently and without too much disturbance bring about the desired result. Among such drugs there are none which are superior to Specific Medicine Nux Vomica, only it must not be overlooked that it will not do to continue the remedy too long, without alternating for a week or two with some other indicated agent. Nux Vomica is a cumulative remedy, and Strychnine is especially dangerous if long continued.

In general terms I would say that the dose of Specific Medicine Nux Vomica is from one to ten drops in a four ounce mixture, drachm (teaspoonful) doses being given every fifteen minutes to four times a day, according to the conditions for which it is administered. Acute conditions need the remedy frequently repeated, while those of a chronic nature should receive the drug at longer intervals.

Selections from Journal articles on the subject of Nux Vomica:

Nux Vomica.—In the first place, Strychnine can not take the place of Nux in fluid form. I do not know why, but I do know that it does not exert the same influence on the system. So I say, give the Specific Medicine, and use Strychnine only in hypodermic medication when the Specific Medicine is not admissible. Nux Vomica will probably meet as many pathological conditions as any medicine we use and will seldom disappoint us. A large number of ill-defined diseases affecting the digestive apparatus respond very quickly to Nux. The stomach is made the receptacle for almost every abomination, and the one thing which it resents is to be crowded, and so after a time it gets balky, and refuses to do much else than complain. It feels heavy and inactive; the breakfast has a tendency to wait for dinner to accompany it on its way. Sour belching tells of improper digestion. Dull, heavy headache is complained of, and the bowels seem to have concluded to join in a general strike. The skin is of a bad color. If we pinch it the wrinkle slowly disappears. Everything lacks tone and energy. These patients (and there are many of them) need Nux Vomica in small doses. They also need to be told to eat less and to drink a cup of *hot* water before going to bed at night. This treatment will tide you over many a difficult place where physic would get you deeper into the mire.

In cholera infantum, unless there is active irritation, Nux in very small doses will stop the vomiting, tone up the intestinal tract, and stop the exhausting dis-

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charges. I usually associate with it one of the soda salts—either the phosphate or the sulphate, preferably the phosphate.

Nux is indicated in cardiac debility and functional irregularity. In these cases it may be associated with pulsatilla or cactus.

In dyspnœa Nux acts on the respiratory centre, and breathing becomes quiet. In those cases where the patient awakes from sleep gasping for air, and feeling smothered and that his breathing has stopped, as he describes it, Nux will relieve the difficulty. In these cases a larger dose is desirable—twenty to thirty drops of the Specific Medicine Nux to four ounces of water, a teaspoonful of the dilution as needed, say from fifteen minutes at first, to every two or three hours after relief has come.

In nervous diseases it is of great value, but it is in those cases of lowered vital action. Care must be used not to administer it where there is exalted action of nervous force, for the effect of the medicine is to increase this function.

In labor Nux is an excellent remedy to excite and regulate labor pains by toning up the uterine muscle. After confinement it sometimes happens that the woman is unable to empty the bladder. Give her Nux.

Children, often, can not retain their urine. If this arises from weakness of the sphincter, give Nux and it will hold it shut. Its effect upon involuntary muscular tissue is always to strengthen it toward the normal, if given in sufficiently small doses, but the dose must be small. I remember once a patient excited, alert and on edge. He had violent priapism, and yet he needed Nux. Every indication proved it. He showed me a copy of the prescription he was then taking. A four-ounce mixture contained three drachms of Nux Vomica.* I gave him five drops in a half-glass of water, teaspoonful every hour, and he did nicely. The doctor was on the right road, but he traveled too fast.

The action of this medicine is truly wonderful, and will bear constant and repeated study. Whatever nature has stored up in it goes to supply vital action. I have no doubt its entire action is through the nervous system. This is one of my favorite medicines. And I again repeat: do not use Strychnine and expect to obtain the results which you can get from the Specific Medicine, which represents the full drug. In extracting the alkaloid, something is lost. What it is I do not know. I only know the effects.

Indications for Nux.—Lack of tone, irregular and subnormal function of involuntary muscular tissue, which indicate an exhausted nerve force.—*A. F. Stephens, M. D., American Medical Journal.*

Nux Vomica and Echinacea in Prolapsus Ani.—The mother stated that the child had been suffering from prolapsus ani, and that the bowels had been protruding for two or three weeks. We exposed the little patient on a table, and a mass of bluish-black intestine three inches long was found between the nates. It is a wonder that the bowel had not sloughed off before this. I reduced the prolapsed bowel gradually with the fingers, holding them as a cone and lubricating them well. The bowel was then carefully returned. When in place I first soaked a sponge in a strong solution of specific echinacea, ℥i, aqua fontana, ℥i, inserting the sponge to hold it in position, as the medicine would have a tendency to make the bowel contract. Then I prescribed

R. Specific Medicine Nux, - - - - - gtt. v.
Aqua Fontana, - - - - - - - - - ℥ ii.

M. Sig.—Teaspoonful every two hours.

* It is needless to say this was not Specific Medicine Nux Vomica, but probably the ordinary tincture of the shops.

NUX VOMICA.

I had excellent success attending its use. Gave such articles of diet as would not have a tendency to constipate the bowels, chiefly boiled rice and oatmeal as food for a few days. A cure was effected.—*C. W. Pagel, M. D., American Medical Journal.*

Nux Vomica.—I often think of the wide range of usefulness of Nux Vomica. It is, perhaps, not more useful than some other remedies, but I should not like to try to practice medicine without this valuable remedy.

I always use the Specific Medicine Nux Vomica, as its strength is uniform and it can always be depended upon. I prefer the small dose frequently repeated in most cases. A favorite method of using the remedy is to medicate No. 30 or 40 Homœopathic pellets. They are so handy in this way that I can give them to a business man to carry in his vest pocket to take one or two occasionally for indigestion or headache caused by the sluggish action of the liver, stomach or bowels. Railroad men, farmers, etc., can carry them and use them in hot weather when they are inclined to drink so much water that it hurts them. Children can take a few pellets to school in cases of bowel trouble when they are not sick enough to stay out of school, and it is yet necessary for them to take medicine. Nux Vomica may be used to advantage in almost any atonic condition of the stomach and bowels. One of the plainest symptoms is a false condition of the mucous membrane. Other symptoms are nausea, when not caused by a loaded stomach, pain in the umbilical region, colic when the patient feels like hanging himself across a board fence. A weak heart will respond quickly to small frequent doses of Nux. Local paralysis or numbness, when the patient can not put the tongue straight out, but it will go to one side, Nux is surely one of the remedies; others may be indicated. When children are troubled with intestinal worms, follow your santoline with Nux. It is a valuable addition to Howe's Acid Solution of Iron as a general tonic.

R. Acid Solution of Iron, - - - - - ʒ ii.
Specific Medicine Nux Vomica, - - - - - gtt. vi.
Simple Syrup, - - - - - q. s. ʒ vi.

M. Sig.—One teaspoonful four times a day.

This will do splendid work in cases of weakness where the mucous membrane is pale and the appetite poor.

In chronic constipation Nux Vomica is the remedy; taken frequently during the day it encourages the peristaltic action of the bowels.—*A. S. Brecount, M. D., Annual, Eclectic Medicine and Surgery.*

Nux Vomica.—As specific ipecac was the remedy for irritation of the gastro-intestinal canal, Nux is the remedy for atony. The indications are: a sallow skin, fullness of the stomach and bowels, inaction or tendency to costiveness, pain in bowels, pallid or coated tongue. It will arrest vomiting and nausea frequently but not when the evidences of irritation are present. It arrests diarrhœa, chronic diarrhœa when it is due to an atonic condition, and there seems to be a want of power. In dyspepsia or chronic gastritis, in combination with muriatic acid, it excels any or all preparations of pepsin. In colic, when due to indigestion, the pain being in the umbilical region, either alone, or in alternation with specific colocynth, it will effect a cure. We generally prescribe it, drops five to twenty in water four ounces, teaspoonful of the mixture, according to the age of the patient and the effect desired, every one to four hours.—*W. N. Mundy, M. D., Eclectic Medical Journal.*

NUX VOMICA.

SPECIFIC INDICATIONS AND USES.

Specific Medicine Nux Vomica is the remedy for nausea and vomiting if the tongue shows atony; for colic if the tongue is broad and pallid; for atony of the liver and associate organs; for habitual constipation; to improve the innervation from the spinal cord; and in every case where there is abdominal pain pointing at the umbilicus. A yellow sallowness of skin and about the mouth, is an indication in chronic diseases.

In typhoid and asthenic disease, where there is impairment of spinal innervation, and in consequence imperfect or enfeebled respiration, we give Strychnine or Nux Vomica with advantage. Indeed in those cases in which the respiratory functions can only be carried on under the influence of the will, it is the only remedy we can rely on.

These agents are very valuable in the treatment of the alcohol habit, and as stimulants in threatened cardiac collapse.

SPECIAL NOTICE.

This series of Drug Studies has become so popular as to have necessitated the issuing of editions twice the size of the initial prints. Second editions of the first numbers have been printed in order to satisfy a multitude of physicians who neglected to preserve the initial numbers and who wish the series complete, as well as to supply many who, learning of the series, placed their names on the list too late to obtain the first issue.

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